

Handbook of Research on Clinical Applications of Meditation and Mindfulness–Based Interventions in Mental Health

Sanjeev Kumar Gupta
All India Institute of Speech and Hearing, India

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In the last six decades, the concept of mindfulness has been widely studied, researched, and practiced in mainstream psychology, mental health, and health disciplines. Over a period of time, clinical practitioners have integrated meditation and mindfulness practices or techniques in the mainstream psychological interventions for emotional and behavioral disorders such as anxiety, depression, chronic pain, borderline personality disorder, and eating disorder. This chapter highlights the application of Mindfulness-Based Interventions in various clinical and non-clinical samples. It also covers the importance of mindfulness practices for the crisis due to the COVID-19 pandemic, discusses integrating technology into mindfulness training, and presents various issues and challenges related to mindfulness practices.

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Mindfulness is focusing on the present moment while calmly acknowledging and accepting one's thoughts, feelings, and body sensations as they are. The use of mindfulness practices on children and adolescents is burgeoning. This chapter covers the meaning and elements of mindfulness, their measurement, the various techniques, and exercises exclusive for children. Such techniques are typically individualized, tailor-made, personalized, contextualized, play-based, activity-oriented, reward-oriented, and maintained at the child's developmental level. Mindfulness parenting is vital. A mindful parent is aware of one's thoughts and feelings; is responsive to the child's needs, thoughts, and feelings; is better at regulating own emotions; is less critical of oneself or the child; is better at standing back from situations and avoiding an impulsive reaction. Issues related to professionalism, formal institutions for training mindfulness, and ongoing research on this theme, their achievements, and setbacks are listed before providing future directions for work in this area.

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The chapter focuses on bringing mindfulness into the parent-child relationship. The concept of mindfulness is discussed and its dimensions are examined as having an impact on effective parenting and a harmonious relationship between the parent and child. A model of mindful parenting emphasizing on the social context of parent-child relationship is described. The chapter highlights the significance of mindful parenting which includes being mindful to one's self as well as being mindful of the relationship between the parent and child, indicating a shift from doing mode to being mode. Thus, mindful parenting requires the parent to be mindful of the parent-child relationship itself rather than considering parenting as a task to be carried out and just doing or acting in this relationship. Infusing mindfulness into the dynamics of the parent-child relationship will usher in the well-being of both child and parent.

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<i>Fathima M. A., Prajyoti Niketan College, Kerala, India</i>	
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The chapter is an attempt by authors to highlight the scope of mindful eating as an adjunct therapeutic tool. There is a close link between emotional states and eating, specifically intense emotional states and unhealthy eating practices. Mediating factors such as an individual's perception of food-related cues, changes in cognitive control, and eating as an emotional coping strategy influence the relationship between emotion and eating behavior. Mindful eating can be utilized as an adjunct in therapy by helping clients to practice cognitive control and by breaking the cycle of unhealthy coping strategies like emotional eating. Similar to other mindfulness techniques, mindful eating involves paying attention to the food intentionally, in the moment and without judgment. The chapter covers various approaches to mindfulness eating. Authors have compiled guidelines for therapists on how to introduce mindful eating as an adjunct in therapy settings for clients who have unhealthy eating patterns along with anxiety and depressive symptoms as well as for those suffering from eating disorders.

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Acceptance and Commitment Therapy (ACT) is one of the latest mindfulness-based behavior therapies shown to have compelling evidence and efficacy with a wide range of clinical conditions. ACT is so hard to categorize that it is often described as an amalgamation of existential, humanistic, cognitive-behavioural therapy. ACT is often referred as process-based CBT and is one of the 'third-wave' of behavioural therapies. It is currently the fastest growing evidence-based therapy in the world, with currently at least 304 Randomized Control Trials (RCTs) being recorded all over the world. It has proven effective in different cultural contexts with a diverse set of clinical conditions, from depression, Obsessive-compulsive disorder, chronic pain, grief, loss and terminal illness, anxiety, and workplace stress.

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Srinivasan Venkatesan, All India Institute of Speech and Hearing, India

With growing life expectancy, age-related mental health issues are rising in the elderly. Whether normal aging or pathological senility, mindfulness practices are useful, economic, and accessible. The elderly experience many forms of anxiety with varying severity. There can be stress, anxiety, depression, and negative emotions. Quality of life and sleep, cognitive impairments, chronic pain, decreased social contacts are common concerns of the elderly. There is growing evidence that mindfulness practices mitigate their suffering. This chapter covers details on mindfulness-based tools for the elderly, their practices, exercises, and techniques. The recommended techniques are group-based, participatory, age-appropriate, and reflective. Given the vulnerability of the elderly, the chapter cautions about latent medico-legal and ethical issues in using mindfulness for the elderly. They must be blended with cultural, religious, moral, and spiritual elements to derive optimum benefits for the individual or small groups of such persons. A future road map is given.

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Kamlam Gopalkrishnan Iyer, Oyster Multi Specialty Clinic, Bengaluru, India

Mindfulness has been noticed in the domain of psychology and neuroscience for the last two decades. With the plethora of studies based on interventional benefits of mindfulness-based techniques in various populations, the present review assesses if parent-child relationship studies effectively use mindfulness-based interventions on parents of children with autism spectrum disorder (ASD). The children are in the age group of below 5 years. The aspects of ASD, mindfulness techniques, and parent-child relationship importance are explored, albeit briefly. One study could be reviewed and was assessed for its treatment fidelity. The conclusion was based on the need to conduct more mindfulness-based intervention studies for the parent population of children in the younger ages and with ASD. This review recommends such replication of studies on the parents of the Indian subcontinent as well.

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Nandini Sharma, Amity University, Lucknow, India

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Families of children with disabilities often experience high levels of stress associated with taking care of a child with disability. The perceived stress by the caregivers may often lead to negative outcomes in day-to-day functioning for caregivers themselves as well as the child. Mindfulness as an element of consciousness has been acknowledged to promote positivity and well-being among individuals. It is a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations. This chapter focuses on the application of mindfulness-based therapies for caregivers (parents) of children with cerebral palsy. This chapter also entails in detail therapeutic techniques like Mindfulness-Based Stress Reduction (MBSR), its in-depth description, background, and applications as an effective approach for the intervention of caregivers.

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Mindfulness-Based Interventions in Attention Deficit Hyperactivity Disorder 144

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Attention Deficit Hyperactivity Disorder (ADHD) is the most prevalent neurodevelopmental disorder in children and adolescents. It is marked with deficits in behavioral symptoms of hyperactivity/impulsivity along with cognitive deficits in the domain of attention, self-regulation, and executive function. Mindfulness-Based Interventions (MBI) have come up as an intervention of choice for various psychological disorders such as anxiety disorder, depression, substance abuse, and eating disorder. Mindfulness at its core is paying non-judgmental attention to the present moment. Despite the robust evidence for both of the treatment modalities available, the cognitive symptoms of ADHD still progress towards adulthood affect the individual's achievement and overall psychosocial adjustment. A number of recent studies have found preliminary evidence about the effectiveness of MBI as an adjunct treatment in ADHD. The chapter will discuss the evidence-based interventions that incorporate mindfulness.

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Mindfulness-Based Interventions in Psychosis..... 153

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Individuals suffering with psychotic disorders face lifelong emotional dysregulation and may have impairments in their thought processes and perceptual experiences despite the availability to pharmacological treatment and good compliance. They feel extreme distress with their psychotic experiences that may result in avoidance of these experiences which may further warrant for residual symptoms and frequent hospitalizations. For a few decades literature has focused on exploring the possibilities of acceptance-based interventions in psychosis. Mindfulness interventions employ the strategies of direct use of meditation practice or combined use of meditation with acceptance-based or compassion-based practices. This chapter tends to summarize the various mindfulness interventions used for psychosis and review their feasibility in terms of evidence base and therapeutic specificity. Furthermore, it recommends the guidelines for protocol to be used with psychotic individuals and advocates the need for more methodologically rigorous evidence.

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Prashanth Prabhu P., All India Institute of Speech and Hearing, India

Mindfulness-based interventions are one of the recent techniques that have proven to be very useful in tinnitus management. Mindfulness therapy refers to experiencing the present, which helps control the attention system, which significantly contributes to getting relief from the adverse reactions due to tinnitus. Several systematic reviews and randomized controlled trials report relief from tinnitus perception even with the heterogeneity of the patients with mindfulness therapy. The different study designs and outcome measures reported similar results suggesting the efficacy of mindfulness-based training. Thus, psychologists and audiologists dealing with individuals suffering from tinnitus can attempt this technique in management. The mindfulness-based training can be combined with formal Cognitive Behavioral Therapy (CBT) and Tinnitus Retraining Therapy (TRT) approaches to enhance tinnitus treatment.

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Medical Burnout: Is Mindfulness an Effective Coping Strategy? 184

Diogo Franco Santos, USF do Arco, ACES Lisboa Central, Portugal

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The WHO defines burnout as an inadequate response to chronic workplace stress, with emotional exhaustion, depersonalization, and reduced professional efficacy. Its growing incidence among physicians may adversely affect their personal and professional lives. Mindfulness aims to reach a state of consciousness in which one's attention is purposefully focused on the present. This chapter uses a narrative review of articles published between 2015 and 2019, with the MeSH terms "Burnout," "Professional," "Mindfulness," and "Health Personnel." Sixty-six articles were obtained, of which one meta-analysis, two systematic reviews, and two randomized clinical trials (RCT) met the inclusion criteria. All studies showed some degree of burnout improvement, more statistically significant as regards emotional exhaustion. One RCT also showed a reduction in heart rate. Available evidence suggests that mindfulness may improve physicians' well-being, mental health, and resilience, asserting itself as a possible coping strategy for burnout, namely regarding emotional exhaustion.

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Mindfulness-Based Well-Being Interventions in Organizations and the COVID-19 Pandemic 195

Safiye Şahin, Istanbul Medeniyet University, Turkey

Dramatic changes in social, economic, and working life have occurred with the COVID-19 pandemic. These changes cause stress for employees. Therefore, it is important to implement cost-effective and purposive interventions targeting employee well-being during the COVID-19 pandemic. One of these interventions is Mindfulness-Based Interventions (MBIs). MBIs are generally implemented as a face to face with 8-session program. However, in the COVID-19 pandemic, remote work has been adopted widely by organizations, causing an urgent need for digital well-being interventions. This study aims to investigate effectiveness of digital mindfulness-based interventions on employees' well-being during the COVID-19 pandemic. To do this, the effect of the COVID-19 pandemic on employee well-being will be explained in the first part. In the second part, mindfulness and mindfulness-based interventions will be discussed. In the last part, digital mindfulness interventions and their effects on employee well-being during the COVID-19 pandemic will be clarified.

Section 3

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Chapter 14

Mindfulness Through Mantram and Inspired Passage Meditation: Toolkit for Diversity 214

Doug Oman, University of California, Berkeley, USA

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Mindfulness is sometimes misunderstood as solely a Buddhist or secular practice. This chapter offers a toolkit for enhanced sensitivity and flexibility toward patients and populations of diverse spiritual and religious orientations and backgrounds. It explains a set of eight interrelated practices known as Passage Meditation (PM), and a subset known as the Mantram Repetition Program (MRP), both derived from

Indian-born spiritual teacher Eknath Easwaran (1910-1999). These practices support mindfulness and can be pursued within any major religious tradition or outside all and facilitate drawing on spiritual resources within each tradition. Two empirical research programs based on these practices have generated more than 30 published research studies and seven randomized controlled trials. Each program has documented both enhanced mindfulness and a variety of improved mental health outcomes, often mediated by mindfulness gains. Guidance is provided for implementation, implications for diversity-related ethical obligations, and needed expansion of contemporary mindfulness toolkits.

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Jyotsna Agrawal, National Institute of Mental Health and Neurosciences, India

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The chapter discusses the interpersonal aspects of mindfulness and concentrative meditations in terms of the four Brahmavihara/bhavana, also known as four immeasurables. These are maitri/ mettā (loving-kindness), muditā (empathetic, appreciative joy), karuṇā (compassion), and upeksha/upekkhā or samata (equanimity). This practice is considered pre-Buddhist (Hindu) and extra-Buddhist (Jain) in its origin, with references present in Vedas, Upanishads, Tantras, Bhagawad Gita, Yoga Vashistha, and Patanjali Yoga Sutras and further elaborated in Buddhism. This chapter will cover both conceptual and application dimension of the Brahmaviharas.

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Aya Kamperis, Independent Researcher, UK

The Buddhist practice of mindfulness has enjoyed a tremendous surge in popularity in the last few decades, both in the popular press and in the psychotherapy literature. However, the philosophy and practice of mindfulness has often been erroneously equated with quietism or a withdrawal from the world of action, misconceived as a practice of sterile, self-absorbed contemplation. On the contrary, the core Buddhist conception of existential freedom lies in the belief of doing over thinking, and intersubjectivity over introspection. Moreover, the cultural differences in how one conceives oneself, particularly in relation to others around, prove to be a critical factor in determining the efficacy of various clinical techniques including mindfulness practice. The chapter explores the interpersonal dimensions of mindfulness philosophy and practice, and the implications of such paradigms to question whether the current methods of intervention and training based on internality are sufficient for the clinical application.

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Yoga for Attaining the State of Mindfulness 273

Gitanjali Roy, The Maharaja Sayajirao University of Baroda, India

Mental peace, inner peace, and spiritual enlightenment are often emphasized in ancient scriptures for the holistic development of man. Every culture and religion of the world teaches, preaches, and practices these virtues for a vertical development of love and restating the brotherhood in society. Yoga and Mindfulness are two prominent and popular practices to achieve the good values and virtues. These two practices are dissected by philosophers, researchers, and physicians to the threshold only to conclude that the effects are inevitably gainful. This chapter brings together yoga and mindfulness on same page to show their complementary relationship. Here are mentioned few challenges and issues that both the practices have to face often.

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Experiences of Meditation on Twin Hearts by Naive Practitioners..... 288

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Meditators' subjective experiences mostly focus on the psychological and physiological benefits the practice offers. While most investigations understand meditation to have commonly induced a meditative state, the bioplasmic experiences are vital in sensitizing the practitioner to the subtle changes in the body that are often overlooked, and Meditation on Twin Hearts serves as a platform to highlight these experiences. The present study aims to understand the bioplasmic experiences and other sensations of the participants during Meditation on Twin Hearts in a two-hour session. Using an exploratory study design, 24 participants', aged between 28 to 59 years, responses were analyzed, and results were drawn using thematic analysis. The results indicate that 70.8% of participants experienced bioplasmic energy in novel forms. Further, it can be elucidated that in the meditation process, one's awareness of the subtle bioplasmic or transcendental changes is also enhanced.

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Spiritual Emergency: Channelizing a Fire Within..... 301

Rajeev Kumar, Indian Institute of Technology, Kharagpur, India

Mindfulness meditation has been proven efficient in treating many physical and psychological disorders. Mindfulness meditation techniques are also subjected to specific indications and contraindications. Scanning of gross body, thoughts, emotions, and memories are the essential components of any form of meditation. During those scanings, some unwanted memories and some unusual experiences are very much apparent. There are many energy points in the gross human body, which are correspondent to the endocrine system of the human body, known as Kundalini or Chakra. During meditation, those chakras are stimulated, and hidden energy is exploded; increased psychomotor activities manifest in the behaviors of the person. This behavioral manifestation is called a spiritual emergency. Professionals often confused this behavioral manifestation with psychotic illness. A spiritual emergency requires specific therapeutic management. Against this backdrop, this chapter attempts a review of research articles on spiritual emergencies and therapeutic guidelines to handle them in clinical settings.

Section 4

Mindfulness and Education

Chapter 20

Digital Distractions, Mindfulness, and Academic Performance With Undergraduate College

Students..... 319

Nina B. Eduljee, Saint Joseph's College of Maine, USA

Laurie Murphy, Saint Joseph's College of Maine, USA

Karen Croteau, Saint Joseph's College of Maine, USA

This study examined the relationship between digital distractions, mindfulness, and academic performance with undergraduate college students. A total of 199 students completed surveys that examined digital distractions and the Five Facet Mindfulness Questionnaire (Baer et al., 2006). The results indicated that 96.5% of participants had a digital device near them when studying, and 94.0% used a digital device to

help them study. The major purpose for using a digital device in the classroom was to check the time on their phone (91.0%) and text someone (88.9%). Some reasons for using a digital device for non-classroom purposes included to fight boredom (39.2%) and to stay connected with others (25.1%). Participants who had fewer digital distractions tended to be more mindful and a significant positive relationship ($r = .192$, $p < .05$) was obtained between overall mindfulness and academic performance.

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Mindfulness in Education: The Need of the Hour	337
<i>Sunita Devi, Indira Gandhi National Open University, India</i>	

Complexity of the modern era has led to increased difficulties of people, especially the youth. Living in the current stressful, uncertain, and highly stimulating technological era is not very easy for the young ones. Hence, there is an urgency to teach skills of stress management and resilience among children through mindfulness-based practices. This change in the present scenario has attracted the attention and interest of psychologists and educationists to the practice of mindfulness-based interventions with children and adolescents for enhancing their overall well-being. The last few years have observed a growing number of research and applications of mindfulness in educational settings because of its effectiveness and the urgent need of prevention and interventions of the youths' problems. In this chapter, the author has discussed research supporting the idea of mindfulness in education for both students and teachers and its usage to increase the academic performance, enhance overall wellbeing, and reduce the stress level of youth.

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Foreword

Mindfulness basically refers to being attentive, being conscious, and to be present centered as evident in frequently used expressions such as ‘mind your head,’ ‘mind your language,’ ‘absent mindedness,’ ‘being mindful’ and so forth. ‘Mindfulness meditation’ which is popular now-a-days is an adapted version of *vipassana*, developed in the Buddhist tradition of India. India is the home for the development of many strategies of deploying attention in an attempt to expand the range and depth of one’s awareness in spiritual context. The Vedic, Jaina, and the Buddhist spiritual traditions of India employ many of them and here are many Sanskrit terms *avadhāna*, *dhāraṇa*, *dhyāna*, *upāsana*, *tapas*, and so forth, which represent different degrees of attention employed in inducing expanded states of awareness. Therefore, in terms of attentional deployment mindfulness meditation practice involves allowing a free flow of thought process instead of restricting it to a narrow stimulus field, overt or covert. In psychological literature, these two types are characterized as “awareness meditation” and “concentration meditation.” Mindfulness practice is primarily aimed at enhancing the awareness of one’s inner psychological processes. Another important aspect of mindfulness meditation is to remain as a witness with a non-judgmental attitude towards the stream of thought, which is also termed as bare attention. With the spiritual resurgence in Western societies in the 1960s, these two types of meditative practices gained popularity. Both practitioners and researchers evinced interest in them because of the positive benefits they bring about. Since then, meditative practices are approached as a way of inducing altered states of consciousness; as a cost-effective alternative to reduce personal stress through self-regulation and as growth promotion strategies.

In the past six decades, publications – journal articles and books – on mindfulness have increased manifold. Most recently, *The Humanistic Psychologist*, an official journal of the American Psychological Association, has published a “double-sized special issue” on this topic (Khong and Segall, 2021). In one of the articles titled “Revisiting and Re-Envisioning Mindfulness: Buddhist and Contemporary Perspectives”, the author Belinda Siew Luan Khong notes that a Google search conducted on December 6th 2020 generated 266,000,000 items for the keyword ‘mindfulness’, whereas in 1980 the publications on this topic was “negligible”. It has increased manifold with approximately 1203 articles in 2019 alone as reported by American Mindfulness Research Association. With such development and popularity, many issues have arisen regarding (a) the nature, context, effects, and practice of mindfulness on one hand, (b) the teaching, training and research methodological issues on the other. It is heartening to note that the Editor of this book Dr. Sanjeev Kumar Gupta has undertaken the onus of bringing to light some of the theoretical and empirical articles mostly by Indian researchers on the global stage with the encouragement and support of a ‘global publisher’ (pun intended).

The four major sections-‘Overview of Mindfulness and Mindfulness-Based Practices’; ‘Clinical Application of Mindfulness-Based Interventions’; ‘Meditation, Mindfulness, Health, and Healing’; and ‘Mindfulness and Education’ with 21 chapters are organized to provide a very meaningful coverage of the breadth and scope of contemporary researches on mindfulness. The chapters in these four sections

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show how the very idea of mindfulness have evolved in the field of research over the years to incorporate many techniques and procedures, which not only serve as intervention for mental disturbances but also in facilitating the development of positive health. A wide-ranging content is included in the four sections, which suggest that the scope of mindfulness research has extended from studies on anxiety and stress reduction to spiritual development of self. It is a collection of both empirical articles and useful overview and review articles that touch upon all the different aspects of contemporary mindfulness research, from the very mundane to the spiritual.

Some of the major issues in this field besides the research methodology and training issues, include What are the important differences between the mindfulness practices in Buddhist and contemporary settings? How can the original roots of mindfulness in Buddhist tradition be brought to light, understood, and integrated into contemporary practices? How can mindfulness practice contribute and serve society in meaningful ways in the future? The contents in this volume address some of the issues mentioned above.

I commend the efforts of the editor of this book in soliciting original articles from a group of researchers not only from India and even from abroad and effectively presenting them. It is also a matter of gratification that a chapter based on the Bhagavad Gita is contributed by two American authors, which attests to the ‘Internationalization of Indian Psychology.’ In the Bhagavad Gita, the well-known Indian scripture, Krishna the Divine incarnate, discusses extensively on how our mental processes can lead to bondage and disturbance culminating in pathology when it gets fixated on objects of the environment; and how one can get liberated from such a condition and achieve a sustained state of equipoise, *sthitaprajña* (Chapter 2-Sāmkhya Yoga and Chapter 6-Dhyāna Yoga). *Sthitaprajña* is composed of two terms *sthita* – being established and *prajña* – fundamental or original or primary awareness. Therefore, the composite term *sthitaprajña* refers to a person who is permanently established in that steady state of awareness which is also the spiritual self. Such a person is always in a state of mindfulness. Therefore, mindfulness is not just a technique, but it is primarily intended as ‘a way of being.’ These ideas have been brought out in the chapters, more particularly in the third section.

In his Preface, the Editor has provided an overview of each chapter that helps the reader to get a map of the territory to navigate easily. The chapters can help clinicians, researchers, educators, and all those interested in this field, in enriching their understanding of mindfulness and its application across a spectrum ranging from normal and pathological to spiritual states. I appreciate the efforts of the Editor wholeheartedly and congratulate him for bringing out this volume which provides a comprehensive view of the state-of-the-art. I hope this effort will go a long way in throwing open new vistas of research towards integrating Indian psychological knowledge into the mainstream of psychology. I wish all the contributors of this volume success in their career and life.

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Preface

In the fast pace of life, somehow, we have forgotten to live a calm, composed, and relaxed life. Due to unhealthy behaviors and lifestyle changes, people encounter a high level of stress, illness, disability and even death (Farhud, 2015). Stress is directly linked with psychosomatic dysfunction (Yu et al., 2019). As per the World Health Organization, 60% of related factors to individual health and quality of life are correlated to lifestyle (Ziglio, 2004). In recent times, behavioral and psychosocial problems such as fear, stress, anxiety, substance use and depression are rising globally due to the COVID-19 pandemic (Gritsenko et al., 2020; Islam et al., 2020).

Regular mindfulness practices help us develop a skill for bringing back our wandering awareness at the present moment. Mindfulness practices may be a low-cost beneficial method of providing psychological support for everyone. Mindfulness-Based Interventions (MBIs) have been used in many clinical conditions such as anxiety (Helmes & Ward, 2017), depression (Williams & Kuyken, 2012), and fear of COVID-19 (Belen, 2021).

There is a tectonic shift in mental health practices, treatment, training, and teaching. Now mental health professionals are shifting their focus from the *disease or illness model* to the *wellness or well-being model*. However, the meditative or contemplative practices were not initially meant for psychological interventions (Davidson & Dahl 2018). Still, gradually, the integration of mindfulness and other meditative techniques in mainstream psychological intervention is growing exponentially. Research evidence suggests the effectiveness of mindfulness and other contemplative practices in various clinical and non-clinical samples.

The primary objective of this book is to produce and disseminate evidence-based researches and clinical practices to the scientific fraternity, academicians, and clinicians for the advancement of the behavioural and mental health discipline and for the benefit of persons with psychological distress. This book is organized into four sections consisting of 21 chapters. Section one, covers six chapters presenting an overview of mindfulness and mindfulness-based practices. Section two, consists of seven chapters dealing with the clinical application of MBIs. Section three, covers six chapters highlighting passage meditation and mantram repetition program, interpersonal dimensions of mindfulness, and spiritual emergency. The last section presents two chapters and explains the importance of mindfulness in education. A brief description of each of the chapters is given below.

Section 1: Overview of Mindfulness and Mindfulness-Based Practices

Chapter 1 discusses the application of mindfulness practices in clinical and non-clinical samples. The chapter also highlights the importance of mindfulness practices for the crisis due to the COVID-19

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pandemic, integration of technology into mindfulness training, and issues and challenges in mindfulness practices.

Chapter 2 explains the definition and history of mindfulness, a glossary on key terms related to mindfulness, mindfulness assessment scales, and mindfulness exercises for children and adolescents.

Chapter 3 presents mindful parenting, issues and challenges in parenting, an evolutionary perspective on parenting stress, and also explains model and mechanism of mindful parenting.

Chapter 4 highlights the concept of mindful eating as a novel therapeutic tool and discusses how to introduce this concept in a therapeutic setting.

Chapter 5 covers mindfulness-based Acceptance and Commitment Therapy (ACT), discusses the primer on the three waves of behavioural therapy and the six core therapeutic ACT processes, and also presents vignettes of client-therapist interaction.

Chapter 6 focuses on mindfulness practices in elderly people. It discusses normal aging, theories of aging, mindfulness tools, and mindfulness exercises for the elderly.

Section 2: Clinical Application of Mindfulness-Based Interventions

Chapter 7 presents various aspects of autism spectrum disorder, mindfulness techniques, and the importance of the parent-child relationship.

Chapter 8 covers MBIs for caregivers (parents) of children with cerebral palsy. It also discusses the mental health concerns of caregivers of children with cerebral palsy.

Chapter 9 discusses MBIs in Attention-Deficit Hyperactivity Disorder (ADHD), presents ADHD assessment scales, and also covers other treatment modalities and challenges that lie ahead.

Chapter 10 reviews various studies to examine the efficacy of MBIs in psychosis. It highlights the need for an approach away from cognitivism in psychosis, discusses the feasibility and guidelines for mindfulness training for persons with psychosis.

Chapter 11 outlines various approaches to understand Mindfulness-Based Therapy in the management of tinnitus. Mindfulness-Based Training can be combined with formal Cognitive Behaviour Therapy to enhance the treatment of tinnitus further.

Chapter 12 discusses that mindfulness may improve physicians' well-being, mental health and resilience, asserting itself as a possible coping strategy for burnout.

Chapter 13 explains the effect of the COVID-19 pandemic on employee well-being. It also covers digital mindfulness interventions and their impact on employee well-being during the COVID-19 pandemic.

Section 3: Meditation, Mindfulness, Health, and Healing

Chapter 14 gives an overview of the Passage Meditation approaches and Mantram Repetition Program including covering the mechanism and clinical application of the same.

Chapter 15 discusses the meditative traditions and Brahmavihara. It covers interpersonal aspects of mindfulness and concentrative meditations and highlights clinical experiences from psychotherapy practice.

Chapter 16 explores the interpersonal dimensions of mindfulness philosophy and practice and the implications of such paradigms to question whether the current methods of intervention and training based on internality are sufficient for clinical application.

Chapter 17 reviews the importance of yoga for attaining the state of mindfulness. It states that high spiritual goals lead to mindfulness, and to achieve this, every step of yoga shall be followed industriously.

Chapter 18 evaluates the subjective experiences during the meditation on Twin Hearts by naive practitioners while also drawing inferences on specific mechanisms. Although this study is preliminary, it has opened avenues to explore the bioplasmic experiences of a particular path.

Chapter 19 presents the mechanism of meditation and spiritual emergency. It also differentiates between psychopathology and real spiritual experiences and explains psychotherapeutic management of a spiritual crisis.

Section 4: Mindfulness and Education

Chapter 20 examines the relationship between digital distractions, mindfulness, and academic performance with undergraduate college students.

Chapter 21 discusses the importance of mindfulness in education and application of mindfulness techniques in improving academic performance in students. It also focuses on the challenges in implementing the mindfulness program at school.

This book is a slight drop in the vast ocean of the available mindfulness literature. It can be used as a stepping stone for further exploration, research, and clinical practice in the area of mindfulness. In conclusion, this book explains the clinical applications of mindfulness-based approaches in the mental health setting.

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Section 1

Overview of Mindfulness and Mindfulness–Based Practices

Chapter 1

Meditation, Mindfulness, and Mental Health: Opportunities, Issues, and Challenges

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ABSTRACT

In the last six decades, the concept of mindfulness has been widely studied, researched, and practiced in mainstream psychology, mental health, and health disciplines. Over a period of time, clinical practitioners have integrated meditation and mindfulness practices or techniques in the mainstream psychological interventions for emotional and behavioral disorders such as anxiety, depression, chronic pain, borderline personality disorder, and eating disorder. This chapter highlights the application of Mindfulness-Based Interventions in various clinical and non-clinical samples. It also covers the importance of mindfulness practices for the crisis due to the COVID-19 pandemic, discusses integrating technology into mindfulness training, and presents various issues and challenges related to mindfulness practices.

INTRODUCTION

Meditation is thousands of years old practice in the eastern part of the world and particularly in India. The term ‘meditation’ is an English translation of the Sanskrit word *dhyāna*. It came from the Sanskrit word *dhyai*, meaning to contemplate or meditate. *Dhyāna* is a commonly used term in Hindu and Buddhist scriptures. Perez-de-Albeniz and Holmes (2000) defined meditation as “an act of spiritual contemplation” (p. 49). Research evidence has suggested that meditation practices enhance psychological well-being (Bach & Guse, 2015; Van Gordon et al., 2014) and also serve as therapeutic adjuncts (Kutz et al., 1985) both in re-educative and reconstructive therapies, besides serving as supportive therapy techniques (Kumar, 2002). The essence of meditation is the consistent attempt to achieve a specific attentional set (Goleman, 1976).

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The term ‘mindfulness’ is a buzzword. Practitioners are talking about the health benefit of it and promoting it. This trend is evident as people sign up for Mindfulness Meditation (MM) classes or courses and participate in online and on-site retreat programs. Germer (2005, p. 5) explained that the term *mindfulness* is an English translation of the ‘Pali’ word ‘*Sati*’. Pali was the language of Buddhist Psychology 2,500 years ago, and mindfulness is the core teaching of this tradition, whereas the word *sati* connotes awareness, attention, and remembering (Germer, 2005, p.5). Kabat-Zinn defined mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). Goleman (1977, p. 4) defined mindfulness “as an attitude of paying sensory stimuli only the barest attention”. Many practitioners and professionals (Germer, 2005; Goleman, 1977; Kabat-Zinn, 2003) have defined the term ‘mindfulness’, but the essence remains the same. In psychotherapy, mindfulness can be defined as an *awareness* of present experience with acceptance (Germer, 2005). Goleman (1977) explained that in mindfulness, control of the senses comes gradually through cultivating the habit of simply observing sensory perceptions; it means not allowing them to stimulate the mind into thought chains of reaction. He has also explained that in mindfulness practice, the focus can be on the body, feelings, mind, and mind-objects (Goleman, 1977). When systematically and regularly developed, the practice of *vipassana*, which means seeing things as they are, mindfulness becomes the avenue to the *nirvanic state* (Goleman, 1977).

Sometimes the terms meditation and mindfulness are used interchangeably though both have subtle differences. Meditation can be defined as a set of specific techniques and self-focus skills intended to augment a self-induced state of psychophysical relaxation (Cardoso et al., 2004). In contrast, mindfulness can be defined as a nonjudgemental observation of the present moment or present internal or external stimuli (Baer, 2003). Formal meditative practices include compassion meditation, loving kindness-focused meditation, mindful breathing, use of phrases or mantras as the focus for meditation, amongst many others (Behan, 2020).

Research studies (Charoensukmongkol, 2014; Schreiner & Malcolm, 2008) have demonstrated the benefits of MM and linked negative behavioural, emotional, and mental states to adverse health outcomes (Burns et al., 2002). MM is one of the effective coping strategies (Chu, 2009) and intends to increase one’s capacity to be mindful (Treadway & Lazar, 2010). It increases the ability to focus, concentrate, and pay attention. It also strengthens the neural circuits/pathways, neuroplasticity in the brain and these changes are associated with cognitive and emotional well-being (Treadway & Lazar, 2010). In other words, MM may help in rewiring the brain for maximum psychological resilience and emotional well-being. Regular meditation practices may slow the gradual degeneration of neural tissue associated with normal aging (Treadway & Lazar, 2010). Meditation may reduce the stress-related activity of the hypothalamic-pituitary-adrenal (HPA) axis, a significant signalling pathway for stress (Tang et al., 2007). A study by Lazar et al. (2005) suggested that certain parts of the brain appear to be protected from the standard patterns of reduced gray matter volume and cortical thinning associated with aging in long-term meditators.

This chapter covers the applications of Mindfulness-Based Interventions (MBIs) both in clinical and non-clinical samples, highlights the importance of mindfulness practices for the crisis due to the novel coronavirus disease-2019 (COVID-19) pandemic, discusses integrating technology into mindfulness training and presents various issues and challenges related to mindfulness practices.

APPLICATIONS OF MINDFULNESS-BASED INTERVENTIONS IN CLINICAL AND NON-CLINICAL SAMPLES

In the last six decades, the concept of mindfulness has been widely studied, researched, and practiced in mainstream psychology, mental health, and health disciplines. Over a period of time, clinical practitioners have integrated mindfulness practices or techniques in the mainstream psychological interventions for emotional and behavioral disorders such as anxiety, depression, chronic pain, borderline personality disorder, and eating disorder (Bishop et al., 2004). Many empirically-based therapies have been derived from contemplative or meditative practices (Table 1).

Table 1. Therapies derived from the contemplative or meditative practices

Authors/Years	Programs
Kabat-Zinn, 1982	Mindfulness-Based Stress Reduction (MBSR)
Linehan, 1993	Dialectical Behavior Therapy (DBT)
Hayes et al., 1999	Acceptance and Commitment Therapy (ACT)
Segal et al., 2002	Mindfulness-Based Cognitive Therapy (MBCT)
Chadwick, 2006	Person-Based Cognitive Therapy (PBCT) for distressing psychosis
Zgierska et al., 2019	Mindfulness-Based Relapse Prevention for Alcohol dependence (MBRP-A)

Mindfulness-Based Interventions to Reduce Symptoms in Clinical Samples

MBIs have been used in many clinical samples, namely anxiety (Evans et al., 2008; Helmes & Ward, 2017), depression (Kuyken et al., 2008; Williams & Kuyken, 2012), posttraumatic stress disorder (Boyd et al., 2018; Kearney & Simpson, 2020), chronic pain (Day, 2017; Majeed et al., 2018), sleep disturbances (Amutio et al., 2018; Kanenetal., 2015) and sexual dysfunctions (Bossio et al., 2018; Jaderek, & Lew-Starowicz, 2019). Cludius et al. (2020) studied the impact of MBCT on obsessive-compulsive disorder (OCD) and found that MBCT has a superior effect on some aspects of OCD. Zgierska et al. (2019) used Mindfulness-Based Relapse Prevention for Alcohol dependence (MBRP-A) as adjunctive to usual-care. But it did not improve outcomes in alcohol-dependent adults in early recovery compared to usual-care alone. However, greater adherence to MBRP-A intervention may enhance long-term drinking-related results.

Wang et al. (2016) found that Mindfulness-Based Psychoeducation group participants reported significant positive changes in psychosocial outcomes, such as reduced psychotic symptoms and increased progress of recovery and insight about their illness across the follow-up. Chadwick (2006) has developed Person-Based Cognitive Therapy (PBCT) for distressing psychosis. The PBCT for distressing psychosis has embodied mindfulness and other techniques from Cognitive-Behavior Therapy (CBT) and is specifically designed for persons with schizophrenia. The popularity of MBIs has increased exponentially over the last many years, alongside the volume of research conducted on their effectiveness in treating various psychological conditions (Goldberg et al., 2017). Despite that, evidence regarding their efficacy in persons with schizophrenia is still scanty.

Psychological risk factors such as anxiety and depression are associated with many physical conditions like Coronary Heart Disease (CHD; Pogosova et al., 2017), cancer (Linden et al., 2012), and diabetes (Collins et al., 2009). MBIs have also been used in these physical conditions to reduce psychological distress. MBSR program effectively lowers pre-hypertension (Hughes et al., 2013) and hypertension (Schneider et al., 1995). Parswani et al. (2013) examined the effect of the MBSR on symptoms of anxiety, depression, perceived stress, blood pressure, and Body Mass Index (BMI) in patients with CHD. They concluded that the MBSR program effectively reduces symptoms of anxiety, depression, perceived stress, blood pressure, and BMI in patients with CHD. Zimmermann et al. (2018) found potential benefits for improving psychological well-being in adults with advanced cancer and emphasized individualized home-based intervention programs. Home-based programs may be feasible and allow critically ill patients to participate in the treatment. Van Son et al. (2013) studied the effectiveness of group therapy with MBCT in patients with diabetes. MBCT was found to be effective in reducing emotional distress and an increase in health-related quality of life in patients with diabetes who had lower levels of emotional well-being (Van Son et al., 2013).

Mindfulness training has also been successfully integrated into the treatment of adolescents with stuttering (Gupta, 2015) and adults with stuttering (Boyle, 2011; Gupta et al., 2016). De Veer et al. (2009) assessed the psychological impact of the MBSR program on persons with stuttering. The participants observed less stress and anxiety immediately after the eight-week of the MBSR program.

Mindfulness-Based Interventions to Promote Psychological Well-Being in Non-Clinical Samples

The MBIs have a scope to promote psychological well-being and enhance performance in non-clinical populations, specifically people in military (Goldberg et al., 2020), teachers (Klingbeil & Renshaw, 2018), medical students (Shapiro et al., 1998), doctors' (Scheepers et al., 2020), Cyclists (Scott-Hamilton et al., 2016), and in the industrial and organizational setting (Alberts & Hülshager, 2015). Initially, MBIs modalities were introduced in the discipline of clinical psychology to treat various psychological conditions and later applied in other settings or contexts such as sports to enhance sportspersons' performance and psychological well-being (Moore & Gardner, 2014). Scott-Hamilton et al. (2016) concluded that MBIs tailored to specific athletic pursuits might effectively facilitate flow experiences, increases mindfulness, and reduces stress and discouragement in athletes'.

Research studies have also suggested the role of mindfulness in work-related outcomes such as task performance (Glomb et al., 2011; Good et al., 2016). Shapiro et al. (1998) assessed the short-term effects of an 8-week MBSR intervention program on premedical and medical students. Results showed that MBSR intervention could effectively decrease self-reported state & trait anxiety and psychological distress, including depression and increase empathy and spiritual experiences (Shapiro et al., 1998). The meta-analytic review of 29 studies found that MBIs with teachers effectively promote mindfulness, increases psychological well-being, and decreases psychological distress (Klingbeil & Renshaw, 2018).

The psychological well-being of medical doctors is at risk, as evident by high burnout rates amongst doctors around the world (Dyrbye & Shanafelt, 2016). Scheepers et al. (2020) conducted a systematic review, and the finding reports that doctors can perceive the positive impacts of MBIs on their psychological well-being and performance. Nonetheless, the evidence was subject to methodological flaws and did not support the standardization of MBIs in professional development programs.

Geiger et al. (2016) conducted a comprehensive review and examined the effects of MBIs on older adults' physical and emotional well-being. The review analysis offered mixed findings for the use of MBIs with older adults. Geiger et al. (2016) concluded that potential explanations of the mixed conclusions might include inconsistent modifications of protocols, study limitations, and methodological flaws. Kumar et al. (2017) examined the effect of MBIs on public speaking anxiety. They demonstrated that the impact of MBIs on public speaking anxiety could be better understood by considering the mediating variable, namely self-esteem. The MBIs are culturally feasible, adaptable, and effective programs to enhance subjective well-being in parents of children with neurodevelopmental disorders such as autism spectrum disorders (Rayan & Ahmad, 2017).

MINDFULNESS PRACTICES FOR CRISIS DUE TO COVID-19 PANDEMIC

One of the significant challenges for human life in the 21st century is the COVID-19. It has spread around the world and covered more than 180 countries (Vara, 2020). On March 11, 2020, the World Health Organization officially declared the COVID-19 outbreak a “pandemic” (WHO, 2020). The COVID-19 pandemic has had a negative impact on all facets of individuals' lives, particularly mental health, due to the fear and stress associated with the pandemic (Belen, 2020; Lim et al., 2020). The impact of COVID-19 has increased health awareness in general and mental health awareness in particular. Therefore, people are becoming more mental health conscious and trying to embrace and cultivate psychological well-being practices. Regular mindfulness practices may be relevant in mitigating harmful mental health consequences resulting from the COVID-19 pandemic (Lim et al., 2020). Standard MBIs programs have significant at-home assignments of formal mindfulness practice as a key component (Parsons et al., 2019). Belen (2020) explored the mediating role of mindfulness in the relationship between fear of COVID-19 and mental health aspects, such as anxiety and depression. The findings reported that mindfulness might effectively decrease the levels of anxiety and depression that appeared due to the fear of COVID-19.

Globally, 70 percent of the health workforce comprises women, and most of them are frontline health workers (Thibaut & van Wijngaarden-Cremers, 2020). The COVID-19 pandemic has affected women more profoundly than men at home due to strict lockdown and quarantine procedures (Thibaut & van Wijngaarden-Cremers, 2020). Matiz et al. (2020) found that MBIs may effectively alleviate the negative consequences of the COVID-19 outbreak and assist in particular to restore the psychological well-being of the Italian women teachers. Behan (2020) also reported that MBIs during COVID-19 could complement treatment, and it is a low-cost beneficial method of providing psychological support for everyone.

Lim et al. (2020) studied the significance of an online group mindfulness training program on stress and sleep quality of the people in Singapore during the COVID-19 pandemic. The authors reported that mindfulness training via videoconferencing might be a helpful intervention for stress reduction but not sleep improvement during times when in-person mindfulness training is not feasible. The ‘CoPE It’ programs, E-mental health mindfulness-based and skills-based, consists of four 30 minutes modules and are conducted every other day. It involves psychotherapeutic techniques of MBSR and CBT and helps in reducing psychological distress in times of COVID-19 (Bäuerle et al., 2020).

INTEGRATION OF TECHNOLOGY INTO MINDFULNESS TRAINING

New cost-effective, accessible, and flexible psychological interventions are the need of the hour to treat both behavioral and physical health conditions (Fish et al., 2016). As technology is advancing, so are the intervention programs. The integration of technology into mindfulness training is also increasing. Now, mindfulness training can be delivered through mobile apps, web-based and online programs (Cox et al., 2019; Garrison et al., 2015; Mrazek et al., 2019). Online mindfulness training may be helpful and practical when in-person training is not available (Lim et al., 2020). However, many mobile apps and web-based programs are available, both paid and free, but their effectiveness and reliability are suspected.

Bhayee et al. (2016) highlighted that neurofeedback-assisted, and technology-supported mindfulness training promotes moderate benefits for attention and subjective well-being in a healthy control relative to an active control condition. However, the results would benefit from replication in a more extensive selection. Further, comprehensive instructions must advance the broader benefits, typically reported in a group format, facilitated mindfulness training. Rist and Pearce (2016) reported the benefits of a technology-based mindfulness program to enhance athletes' strength and conditioning training performance from novice to collegiate. They proposed that smartphone technology may bridge the gap between past methods of delivery of mindfulness intervention (Rist & Pearce, 2016). Bakosh et al. (2018) studied audio-guided mindfulness training in schools and its outcome on academic achievement.

Spears et al. (2019) conducted a pilot study to assess the feasibility of a text messaging program, namely *iQuit Mindfully*, as adjunctive to in-person Mindfulness-Based Program for smoking cessation. The findings concluded that text messaging appears to be a practical, feasible, and acceptable modality for reinforcing smoking cessation. Low-income smokers who have access to limited cessation resources and experience significant daily barriers to quitting may be benefited from the availability of 24/7 text messaging (Spears et al., 2019).

ISSUES AND CHALLENGES

Clinical and fundamental research in mindfulness, meditation, and related constructs have increased more rapidly in recent years (Davidson & Kaszniak, 2015). Researchers have reported many conceptual and methodological issues in mindfulness studies (Davidson, 2010; Davidson & Kaszniak, 2015; Farias & Wikholm, 2016; Hussain & Bhushan, 2010). Many studies have failed to meet the gold standard for clinical outcome research, such as Randomized Control Trials (RCTs) and an equivalent comparison intervention by researchers who think that their studies may bring positive outcomes (Goleman & Davidson, 2017).

There are many challenges and issues in mindfulness research. Davidson and Dahl (2018) have highlighted vital points such as methodological issues that are not specific to research on mindfulness. Contemplative practices are varied and were not initially intended to treat clinical conditions (Davidson & Dahl, 2018). Duration of the practice session, intensity, space or interval during practice and the extent to which formal training is required to bring a positive outcome is unclear (Davidson & Dahl, 2018). Therefore, caution should be taken before the conclusion, implementation, and generalization of any MBIs programs (Fish et al., 2016). There is a need to increase the fund for research on meditative practices. More research needs to be done using a robust methodology, a larger sample size, and an extended period with long-term follow up.

CONCLUSION

Meditative or contemplative practices can be an integral part of daily life to stay stress-free, calm, and composed. These practices are not a panacea for all the physical, mental, emotional, and behavioral sufferings. Nevertheless, the long-term practice of MM may enhance the positive facets of mental health such as subjective well-being, psychological resilience, autonomy, coping with the social and professional environment, life satisfaction, self-acceptance, and ability to perceive and regulate one's own intellectual and emotional competency. These positive aspects of mental health may decrease or delay the exposure of psychological and physical distress and promotes more rapid recovery from the disorder or disease. Maintaining the mind-body and work-life balance can reduce the financial burden of health expenditure as health care for physical and behavioral disorders is often costly (Conrad et al., 2010). MBIs may be adjunctive with the other evidence-based therapies and medicine to intervene in physical, emotional and behavioral disorders.

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KEY TERMS AND DEFINITIONS

Clinical Practice: This refers to a set of techniques or methods that involve assessing, diagnosing, and treating the patient's psychological or physical conditions.

Evidence-Based Practice: It is the integration of empirical research evidence with clinical expertise and patient value.

Meditation: It is an ancient practice that focuses on training awareness and concentration to achieve a clear, calm and relaxed mind.

Mental Health: It refers to a person's psychological well-being.

Mindfulness: It is the nonjudgmental observation of the present moment or present internal or external stimuli.

Mindfulness-Based Interventions: It is a psychological intervention based on mindfulness meditation.

Chapter 2

An Overview of Mindfulness and Its Implications for Children and Adolescents

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ABSTRACT

Mindfulness is focusing on the present moment while calmly acknowledging and accepting one's thoughts, feelings, and body sensations as they are. The use of mindfulness practices on children and adolescents is burgeoning. This chapter covers the meaning and elements of mindfulness, their measurement, the various techniques, and exercises exclusive for children. Such techniques are typically individualized, tailor-made, personalized, contextualized, play-based, activity-oriented, reward-oriented, and maintained at the child's developmental level. Mindfulness parenting is vital. A mindful parent is aware of one's thoughts and feelings; is responsive to the child's needs, thoughts, and feelings; is better at regulating own emotions; is less critical of oneself or the child; is better at standing back from situations and avoiding an impulsive reaction. Issues related to professionalism, formal institutions for training mindfulness, and ongoing research on this theme, their achievements, and setbacks are listed before providing future directions for work in this area.

INTRODUCTION

Mindfulness is to be fully present, being aware of what or where we are, and how we are feeling or doing. By doing so, one is likely to become reflective. Thereby, we do not become overly reactive or feel overwhelmed by what is going on around us. This act of self-awareness does not happen all of a sudden. It develops in shades and grades over the years in any given individual. Infants and toddlers are the least mindful. Children, not too far away from the animal temperament, share most of their qualities. Can we conclude that animals and young children are indeed more mindful than adult human beings? Not so. Most animals and young children are instinctual. They do not reflect on or about themselves. They only

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react. They do not experience the deeper aspects of mindfulness. A mindful human can choose how to react entirely on the present. Animals cannot and do not decide what they do. They cannot visualize the future. Their time frame is of that instant.

DEFINITION

There is no single universally accepted meaning or definition of mindfulness. The term is further confused with many other distinct but inter-related words (Box 1). According to Phillip Moffitt, mindfulness is “relaxed, embodied awareness.” For Jon Kabat-Zinn, the founder of Mindfulness-Based Stress Reduction (MBSR), it is defined as “paying attention on purpose in the present moment, non-judgmentally.” It is “a non-elaborative, non-judgmental, present-centered awareness in which each thought, feeling, or sensation that arises in the attentional field is acknowledged and accepted as it is.” In the field of clinical psychology, mindfulness is operationally defined based on a two-component model with each component defined in terms of specific behaviors, experiential manifestations, and implicated psychological processes (Bishop et al. 2004). Mindfulness has three different aspects that operate together seamlessly to bring about a state of awareness. They are intention, attention, and attitude.

Box 1. Glossary on key terms related to mindfulness

Reflection is serious thought or consideration. Generally used in the context of therapy, psychologists typically “reflect” back the client’s words to hear what they have said. It helps them to evaluate the logic or reasoning behind is said. Human self-reflection is one’s capacity to introspect and the willingness to learn more about oneself. A model of reflection involves (i) description of what happened; (ii) noting what you were thinking and feeling; (iii) evaluating what is right and wrong about the experience; (iv) analysis of what sense you can make of the situation; (v) conclusion on what else could have been done; and, (v) action plan of what would be done if it arose again.

Contemplation refers to psychological insights or visions present in the practice of religion. It is how one can intelligently approach and understand human life-experience. The objective of contemplation is the totality of human existence or human experience.

Prayer is a deep inward state undertaken in quiet solitude. Outside stimuli are reduced. A special kind of monotonous soothing environment is created. Echoing intonation of ritual words and phrases like an “OM” are chanted repeatedly. Additional effects may be achieved by use of incense sticks, rolling beads (rudraksha), candle or lamp lights, the sound of bells, a special posture held for a long time, complete or partial closing of eyes, as well as floral offerings. In prayer, a person calls upon a deity in some manner. There is praise or thanksgiving, seeking forgiveness, consolation, or assistance based on one’s relationship with the divine being. Prayer cannot be equated with meditation. They cannot be separated too. The two states are closely related. Prayer is to focus on intercession, confession, and praise.

Meditation is a spiritual practice. It is recognized as a form of alternative medicine to provide mental clarity and physical relaxation. It can be used regularly for personal growth and reduce stress, pain, fears, and anxiety. Most religions prescribe meditative practices. There are many types of meditation, such as mindfulness meditation, Kundalini yoga, Zen meditation, movement/yogic meditation, transcendental meditation, Mantra meditation, Vipassana meditation, and others. Not all types of meditation are right for everyone. Each type of meditation requires different skills and mindsets.

HISTORY

The notion of mindfulness takes its roots in ancient Buddhist tradition from India. Siddarth Gautam Buddha (500 BC) offers four layers of mindfulness practice of the body, emotions, mind, and the objects of mind. Each layer is the foundation for well-being and happiness. Others propose layers of mindfulness as a focus on the present, concentration, and awareness. A classification of five layers covers conscious, subconscious, supramental, subliminal, and subtle causal. Are the layers of mindfulness linear? No. It is just like riding a bike. We learn the different layers in steps and use all of them together. Although a

summary list of elements of mindfulness drawn from various sources is given (Box 2), the capacity to observe, describe, act with awareness of the present experience, being nonjudgmental and possessing a nonreactive attitude are the top five facets which contribute to psychological wellbeing and handle clinical manifestations of psychopathology (Cash & Whittingham, 2010).

Box 2. Elements of mindfulness

- Non-judgmental attitude or impartial stance to one's own experience;
- Non-striving with no goal other than oneself;
- Acceptance or the willingness to see things the way they are;
- Letting go of one's pleasant and unpleasant thoughts, things, ideas, events, desires, views, hopes, and experiences;
- Beginner's mind to see everything as if it is for the first time;
- Patience to let things unfold in their own time;
- Trust in oneself and about one's feelings;
- Focus on the present moment;
- Openness to experience;
- Non-attachment;
- Peace and equanimity;
- Compassion

MINDFULNESS AND MINDFULNESS MEDITATION

Are mindfulness and meditation the same? Not really. Mindfulness can be practised formally through mindfulness meditation and informally during the daily events of our life. The formal technique requires a sitting, walking or lying posture. This can be done for 10-30 minutes. Informal mindfulness is about pausing and noticing what is happening within and around us as we go through the daily tasks of life. When these terms are used interchangeably, they can be confusing. Mindfulness is being aware. It's observing and paying attention to one's thoughts, feelings, actions, and everything else. Mindfulness can be practiced at any time, wherever you are, whomever you are with, and whatever you are doing. This can be done by showing up and being fully engaged in the here and now. This means that you are free from both the past and future. You are free from the judgment of right or wrong. Mindfulness is believed to lower blood pressure, improve digestion, decrease pain, and relax its practitioner. Mindfulness and meditation are mirror-like reflections of each other. One supports or nurtures and enriches or expands the other. Whereas mindfulness can be applied to any situation throughout the day, meditation is usually practiced for a specific amount of time and usually in a given place. Mindfulness is the awareness of "something," while meditation is the awareness of "no-thing." There are many ways of meditation, such as Zen and Vipassana. No one practice is right or wrong. Most important of all, meditation must be enjoyed.

Mindfulness includes five dimensions: observing, non-reactivity, acting with awareness, non-judging attitude, and the ability to describe or label intimate experiences with words. One must necessarily have at least a rudimentary notion of one's self to become mindful. Children develop simple impressions about themselves only by around one-and-a-half to two years. From their essential here-and-now experience, infants learn to understand about their self through daily activities like seeing themselves in a mirror, repeated use of personal pronouns, recognition of their photographs or pictures, or through experiences that promote ownership, self-monitoring, and self-referencing. Indeed, the developmental task of achieving awareness about one's self in early childhood is not an easy one.

Infants confuse their own and other's self, body, and mind. With frequent physical descriptions they receive from others about themselves, comments on the activities they do, over and under-estimations of their performances, understanding of the distinctions between their own and ideal selves, social role description, they eventually arrive at some semblance of perception about their self in middle and late childhood. In short, the recognized stages in the development of self are self-awareness (in infancy), self-recognition (by 18 months), self-definition (by three years) and the full self-concept (by 6-7 years). All this may not happen in the same manner or speed for all children. Some children run the risk of developing a fractured experience of self. A wholesome, healthy self has qualities like empathy, perspective-taking, counterfactual thinking (the consideration how a past event could have been better or worse), the skills for making or taking "if-then" reflections, and causal reasoning. There are ontogenetic and phylogenetic models in the development of mindfulness. There are no universally accepted or agreed stages of cultivating mindfulness.

MINDFULNESS PARENTING

Mindful parenting is "paying attention to the child and yourself in a particular way: intentionally, here and now, and non-judgmentally." Increased mindful parenting is linked to improved parent and child functioning. A mindful parent is not a "perfect parent." It means that you let go of all the guilt or shame about the past and focus only on the right now. It does not mean that you will never get angry or upset. You will get negative emotions, but you prefer not to act on them mindlessly. A mindful parent is aware of his or her thoughts and feelings, is responsive to the child's needs, thoughts, and feelings, is better in regulating own emotions, is less critical of oneself or the child, is better at standing back from situations and avoiding impulsive reactions. There is what is called "hot spots" or emotional triggers in every parent. The child throws food in a restaurant or grabs all toys in a mall, which makes you feel embarrassed. The child's behavior may evoke your childhood memory of trauma, fear, shame, or failure. The mindful parent notices all such of his or her feelings when in conflict with the child. Then the parent will pause before responding in anger. By slowing down and focusing on their own body and breath, the parent becomes calm. The parent is then able to listen carefully to the child's viewpoint even when disagreeing with it (Race, 2014). Ingredients of mindfulness are nowadays made a regular part of childbirth, parenting, and family-based intervention programs (Hatch, 2017).

Mindfulness is being recommended even for infants and babies. A mindful mother is sensitive to questions like how do the clothes on the baby feel for him or her. Is it time to take the baby to a quiet place because the environment is overstimulating? Some babies love being swaddled and held closely. Others cannot just tolerate it. Mothers must learn to accept that babies cry. It might be for the clothes change, too much or too little noise around, hunger or thirst, or to be cuddled (Potharst, Aktar, Rexwinkel, Rigterink, & Bögels, 2017).

MEASUREMENT

To be accepted as a psychological phenomenon worthy of scientific study, mindfulness must have an operational definition as well as an observable, measurable, reliable, and valid tool to document its occurrence. There is no agreed definition of mindfulness. Mindfulness is viewed as state vs. trait dimen-

sions. As a **state**, mindfulness refers to a fluid and short-term mindset or frame of reference that one can quickly move in and out sometimes by force of will. It is a flexible condition that influences how one perceives the world around it. Examples of other states include being hopeful, interested or curious, or feeling sure about something in one's life. As a **trait**, mindfulness is viewed as a more permanent facet of personality, which is probably even genetic and resistant to change. Other commonly presumed psychological traits are extroversion-introversion, self-esteem, perfectionism, and impulsivity. Measuring mindfulness poses unique challenges. Some available mindfulness measurement scales are state-based, while others are trait-based (Box 3).

There cannot be a single definition of mindfulness. It is better viewed as a continuum of practices involving states that can be mapped into a multidimensional phenomenological matrix. In psychology, the construct of mindfulness is generally used with three meanings, (1) a mental trait, (2) a soteriological or spiritual path conceived in therapeutic and health-promotion terms, and (3) a single cognitive process commonly trained across multiple human activities. When viewed as a *trait*, it is measured using dispositional scales, such as the Five Facet Mindfulness Questionnaire, or the Mindfulness Attention Awareness Scale. Mindfulness as a *soteriological path or way of life* refers to the spiritual route of cultivating well-being and alleviating suffering. Mindfulness as a *cognitive process* involves training or acquisition of its qualities like being present catered, visualization, developing a non-judgmental attitude, being non-reactive, and others.

Available measures of mindfulness are self-report instruments where users record their subjective experiences on a 5-point Likert scale. They suffer inherent demerits as the respondent integrity-either intentional or unintentional, and elimination of social-desirability responses. There are few tools to measure mindfulness in children and adolescents exclusively. Many culture-specific and contextual factors are often underplayed or ignored in the adult-like tools for children. If the adult-like self-report techniques are used for children, and where adult-caregivers report on behalf of their children, one can doubt the veracity of responses. The distinction between state-trait is a challenge to measure mindfulness. While trait-based dispositional mindfulness is somewhat comfortable to measure, the observer-subject being the same in children casts doubts on their self-reporting. A crucial question is: How is it possible for one to be mindful in a specific moment and be fully aware of the experience and measure it at the same time?

There is a need for the development and validation of robust developmentally appropriate measures of mindfulness, clear operational definitions, and theoretical frameworks. The objective measures for children must go beyond self-report. Activities like a time-bound breath counting task, heartbeat perception task, and cue-controlled visual discrimination tasks, maybe tied to behavior assessment using bio-feedback measures of their mindfulness.

Box 3. Mindfulness measurement scales for children & adolescents

- Mindful Attention Awareness Scale for Adolescents (Brown and Ryan 2003);
- Mindful Attention Awareness Scale for Children (Brown and Ryan 2003);
- Child and Adolescent Mindfulness Measure
- Comprehensive Inventory of Mindfulness Experiences-Adolescent
- Mindfulness Thinking and Action Scale for Adolescents
- Mindfulness Scales for Pre-teens, Teens, and Adults
- Mindfulness Inventory for Children and Adolescents

(Source: Goodman, Madni & Semple, 2017; Medvedev, Krägeloh, Narayanan, & Siegert, 2017)

MINDFULNESS PRACTICES FOR CHILDREN

The market is full of literature, self-help, and guides on teaching or practice of mindfulness meditation for children and youth (Roberts, 2018; Stewart, 2018; Greenland, 2016; Snel, 2013). Mindfulness exercises are claimed to suit all children aged five upwards who want to calm their thoughts, understand their emotions, and improve concentration. They help children with low self-esteem. Children who are temperamentally worried or anxious benefit from these practices. Overexcited and overactive children benefit from leapfrog games or exercise. The mindfulness training package for children typically contains an easy-to-practice tool-box on noticing or handling one's inner self, breathing practices, feelings, thoughts, and actions. Body posturing as in yoga *asana* is sprinkled in these texts although one can question whether they are ingredients of mindfulness. The use of imagery in mindfulness practice is particularly relevant and useful for children. Children are encouraged to visualize ideas like:

- Watching a fountain bubble up with thoughts that trickle away;
- Thoughts marching past as in a parade;
- Thoughts or images falling gently before our eyes like autumn leaves;
- Thoughts and events being carried past as in a conveyer belt;
- Thoughts as clouds formation, dissolving and forming in the sky, then blowing away;

Teaching children mindful-speech may require instructing them on basics, such as:

- Pay attention to your own speech, not just to what you are saying but how you talk. Listen to yourself talking;
- Listen to other people and how they speak rather than only on what they speak;
- Slow down your speech slightly to pay more attention to the individual words;
- Use as few words as possible to convey a message than long winding wordy utterances;
- Pay attention to the rhythm and silences between words in a conversation;

Although a list of mindfulness techniques is given below, not everyone has the thing in them for teaching, learning, or practicing them as equally as others. The prerequisites for mindfulness are qualification (of being or becoming a teacher, pedagogic skills and social skills), student qualities (willingness to learn and change, expectations, patience, and tolerance), and the context (right relatively undisturbed restful place)(Ahlin & Kjellgren, 2016). When engaging children and youth in mindfulness training, the teachers must embody, model, guide, and skilfully respond to queries from pupils. They must have the ability to engage pupils, have communication, student management skills, or follow ethical principles.

Invisible Companion

Everywhere, children develop invisible buddies, pretend families, friendly ghosts, or shape-shifting aliens from their imaginations. As they grow, the difference between fact and fancy is realized (Wigger, 2019). In some cases, this tendency to maintain invisible and personal companions may persist throughout life. It is not a sign or symptom of abnormality or insanity as long as the creator acknowledges them as a fantastic subjective experience. It is a needed personal, tutelary, functional, and utilitarian phenomenon. A pretend friendship of intimate interpersonal nature in one's imagination not there in the external physical

reality. Although they may seem real to their creators, children fully understand them as imaginary and not real. If one fails to do so, they fall into the domain of psychopathology and mental illness. They reveal the child's fears, anxieties, goals, and perceptions that get expressed within the private realm (Gleason, 2013; p. 251). An invisible companion in adolescence has been studied as a deficit, sign of giftedness, or egocentric behavior. The imaginary companions are not created to replace or substitute real-life friends or family members. They create another "exceptional friend" or mechanism of coping (Seiffge-Krenke, 1997). The invisible companion can be an aide to one's mindful meditation (Adams, 2011).

Transcendental Meditation

Founded in the 1950s by Maharishi Mahesh Yogi in India, it offers a mindfulness technique that requires its practitioner to recite a personalized hymn (called *Bheeja Mantra*) for 15-20 minutes twice a day while sitting with eyes closed. There are certified Transcendental Meditation (TM) teachers who undergo a seven-step course. The technique has been hailed as effective for self-development, reduction in societal stress, crime, violence, and conflict (Bushell, 2009). Advanced courses supplement the original technique called TM-Sidhi Program was introduced in the 1970s. TM for children and adolescents has invaded schools in the form of Consciousness-Based Education. The International Meditation Society was established in 1959 in San Francisco, California, USA (Gressett, 2006).

Superficially, TM and mindfulness may appear similar. They are quite different. They come from different traditions (Buddhist versus Vedic), and have different goals. Mindfulness, with many variations and versions, encourages nonjudgmental, moment-to-moment awareness both during its practice and everyday life. The increased mindfulness is one among the many spontaneous effects of TM. There is only one version of the TM technique. It is designed to direct one's attention inward, beyond, thought, and does not involve any focus or concentration. TM uses a mantra as a means to let the mind settle down naturally and, ultimately, to transcend thought. Mindfulness is training one's mind to be in the present moment. TM is believed to activate the brain's Default Mode Network (DMN) activity (alpha waves on EEG, which is a state of relaxation), which is a natural resting state of the brain. Mindfulness lowers the DMN activity (Theta waves on EEG, which is a readiness to process incoming signals). Finally, TM can be learned in a standardized way only from a certified teacher. Although both cater to reducing stress and anxiety, if it is one's first stint with meditation, you should consider starting with mindfulness. Learning to focus one's mind on a particular thought, helps set the foundation for its practice. TM requires one to transcend surface-level thoughts and dive into the depth of one's consciousness (Box 4).

Box 4. Steps in transcendental meditation

1. Sit comfortably on a chair with your feet on the ground and hands in your lap. Leave your legs and arms uncrossed.
2. Close your eyes, and take deep breaths to relax the body.
3. Open your eyes, and then close them again. Your eyes must remain closed during the 20-minute practice.
4. Repeat a mantra in your mind. This is typically a Sanskrit sound learned from a teacher.
5. When you recognize that you have a thought, simply return to the mantra.
6. After 20 minutes, begin to move your fingers and toes to ease yourself back to the world.
7. Open your eyes.
8. Sit for a few more minutes until you feel ready to continue with your day.

Autogenic Training

This form of relaxation therapy involves autosuggestion. It was developed by the German psychiatrist, Johannes Heinrich Schultz. The technique involves the repetition of specific visualizations that induce a state of relaxation. It is based on the passive concentration of bodily perceptions like heaviness and warmth of arms and legs, which are facilitated by self-suggestion. The training is performed in different postures like sitting, horizontal as well as when reclined in an armchair. The technique is contraindicated for children below five. It is shown to be useful for alleviating clinical symptoms of asthma, hypertension, anxiety, and depression (Linden, 1994). Autogenic training has helped individuals develop a greater sense of empowerment and control over their lives. It helps boost one's self-esteem, self-confidence while decreasing panic attacks, pain, heart palpitations, anxiety, and depression (Stetter & Kupper 2002). Autogenic training has been used in the treatment of childhood migraine, behavioral and emotional problems, poor readers, and others. Some aspects of autogenic training overlap with mindfulness, calm abiding meditation, and insight meditation. Mindfulness uses active concentration, while autogenic training uses passive concentration. In that sense, autogenic training is non-striving, non-goal directed awareness that facilitates the intended outcomes of the practitioner's activity (Box 5).

Box 5. Steps in autogenic training

A typical session of autogenic training might follow the format given below:

1. Trainee takes a comfortable position in sitting or lying down;
2. The position must promote calm or relaxation;
3. The therapist uses verbal cues to guide the trainee's breathing;
4. Attention is drawn towards certain parts of the trainee's body;
5. The verbal cues can encourage sensations of warmth and heaviness;
6. This can then lead to deep relaxation;
7. The trainee has to repeat the verbal instructions of the therapist silently;
8. Examples of verbal cues are:
 - a. I am completely calm (say once)
 - b. My right arm is heavy (say six times)
 - c. I am completely calm (say once)
 - d. My right arm is warm (say six times)
 - e. I am completely calm (say once)
 - f. My heart beats are calm and regular (say six times)
 - g. I am completely calm (say once)
 - h. My breathing is calm and regular (say six times)
 - i. I am completely calm (say once)

The goal at the end of each session is to leave the trainee calm and relaxed.

Jacobsen's Progressive and Differential Relaxation

Jacobson's Progressive Relaxation (JPR) as it is called is a type of therapy that focuses on tightening and relaxing specific muscle groups in progressive sequence. By doing so, one becomes aware of one's body and its sensations. It is an effective way to deal with anxiety, release tension, and keep the body relaxed. It covers the whole body including breathing, fists, arm, elbow, shoulders, neck, chest, abdomen, thighs, calf muscles, toes, and all. Differential relaxation involves specific muscle groups rather than whole body. For example, a typist needs to focus only on hand, wrist and fingers in this relaxation. Although mindfulness and muscle relaxation techniques help people to relax, treat anxiety, and both

involve focus on body parts, their similarities end there. Mindfulness is to relieve stress, to see the body by hyper-focussing on breath, thoughts, feelings or actions. Physiological and self-report data from anxious subjects comparing JPR, meditation, and waiting-list control showed that the similarities between techniques were more significant than the differences. A controlled evaluation of devotional meditation and JPR showed both the intervention groups benefited equally. When it comes to children, it is preferable to use metaphorical rather than literal instructions (such as pretend you are a turtle) to obtain greater compliance for relaxation techniques (Heffner, Greco, & Eifert, 2003).

Digital Mindfulness-Based Interventions (d-MBI)

The use of gadgets to cultivate a calm presence of mind is becoming popular. Ambient earbuds, scented vapor makers, wrist bands for walkers or joggers, song players or jukeboxes that transport one to two minutes of blissful tranquillity with a forest bird song, alarm clocks that wake us gently with prayers, or soothing us before we go to sleep are few examples of gadgets-mediated mindfulness. Further, there are bonsai and self-watering potted plants to connect you to nature. Readymade and pre-programmed app-based headsets are now available with 20-30 sessions of guided meditation programs. They help in weight-loss, stress-busting, improving sleep, and overall wellbeing. There are portable headbands to track one's brainwaves during meditation at home. It does not require wires, gels, scalp electrodes, or stuff that goes with expensive bio-feedback equipment in a lab. Mindfulness gadgets are a booming industry in the west. It is catching up in India. A small electronic device gadget may seem harmless. The manufacture and disposal of these devices impact on the global environment. Many devices contain hazardous materials like lead, cadmium, and mercury. The devices can help improve communication. But they carry social perils, especially in children and adolescents. The future of mindfulness training is digital. The future is now (Mrazek et al. 2019). Smartphone apps and web platforms have advantages over traditional face-to-face formats with enhanced accessibility, standardization, personalization, and efficacy of mindfulness training. Mindfulness is a massive and lucrative industry value well over 130 million US Dollars (Parsons, Jensen, Roepstorff, Fjorback, & Linehan, 2019).

Animal-Guided Meditation

Animals are presumed not to have mindfulness. Animals and young children live in the moment for the here and now. They cannot and do not delve deep into the past. Hence, they cannot hold a grudge, feelings of anger, sadness, or resentment for long. They focus on self-care and have self-acceptance. They make the most of every moment. They do not have intimacy issues. It is not that they are unaware of others. They are aware of others as well as their emotions. When their owner is happy, they magnify his or her joy. If their owner is sad, they come around more frequently to cheer them up. And, if they are irritable and angry, the pet knows to keep a safe distance until that mood is cleared (Robins, 2016).

Animal-guided meditation seeks to reconnect with animals. Our pets bring comfort, love, and peace. One can practice being mindfully present with animals. Observe animals mindfully. What do they look like? What colors or patterns do they have on their skin, coat, or feathers? Listen mindfully. Does the animal make vocalizations, or are they silent? Can any sound be heard when they move? Is it safe to touch the animal? How do they feel like (soft, scaly, smooth, silky, or fluffy)? Look at their eyes. Some animals consider staring as a sign of aggression. Look at them kindly, smiling, and blinking. If you are doing an activity with the animal, like walking a dog or riding a horse, mindfully observe your physical

bodies as you move. Sometimes, mindfully observing insects at work, crawling or creeping, or nudging one another can be soul-stirring. Animal cries have been even attempted to be linked to the underlying musical notes of the Hindustani music tradition (Prasad, 2018).

Story-Telling-Based Meditation

Fun-filled interactive short story rhymes are a simple and easy meditation technique for children. Using a seashell as an interactive tool, for example, reading out aloud the stories can guide the child through a creative journey to exciting places in their imagination (May 2016). Storytelling mindfulness is a dynamic, imaginative, and interactive technique to develop self-awareness and empathy in a child.

Mindfulness Games and Activities

Children enjoy fun-filled games and activities (Box 6 & 7). They love blowing bubbles, running around with rotating pinwheels, playing with balloons, tactile rugs or texture bags, and blindfold games (Greenland, 2016).

Box 6. Some mindfulness-based activities for children

- Feels the abdomen moving while breathing;
- Observes thoughts as if they were clouds in the sky;
- Feels the hand on the abdomen while breathing;
- Listens to the sounds of the body after a run;
- Slowly walks along a path while feeling every single part of the leg moving;
- Tries to see the main thought and writing it down on paper;
- Feels a partner's breath while placing one's hands on his or her abdomen;
- Takes a partner's hand and feels the touch;
- Tries to feel the difference of breath by putting the hands on the throat, chest, and in the abdomen;
- Imagines oneself to be an animal and moving like it;
- Imagines oneself as a piece of paper that is entering and coming out of a scanning machine

PROFESSIONALISM

Mindfulness training is useful in enhancing the professional competencies or development of residents (Verweij, van Ravesteijn, van Hooff, Lagro-Janssen, & Speckens, 2018), medicine (Malpass, Binnie & Robson, 2019), dentistry (Lovas, Lovas, & Lovas, 2008), counselors-in-training (Dong, Campbell, & Vance, 2017), practice of law (Rogers & Jacobowitz, 2015), health care providers and emergency medical technicians (Ducar, Penberthy, Schorling, Leavell, & Calland, 2020) or just about any other career.

Many of them are NGOs, self-styled coaches or trainers, who combine mindfulness practice with Yoga, Reiki, emotional intelligence, who are gifted speakers or writers and thrive by personal charisma. They combine themselves as CEOs, leadership, executive or business coach, management consultants, to flaunt terms like neuro-economics, behavior finance, neuro-linguistic programming, encourage spiritual tourism, or transform into spiritual gurus, organize retreats, workshops, summits, and seminars, main-

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tain blogs, use podcasts, have websites, and social media groups. Some peer-reviewed journals include *Mindfulness, Evidence-Based Complementary and Alternative Medicine, International Journal of Yoga, Indian Journal of Positive Psychology, Journal for Meditation and Meditation Research, Journal of Yoga and Physical Therapy, and others* (Box 8).

Box 7. Some mindfulness exercises for children & adolescents

- Instruct them to imagine that they are watching a movie about themselves. They have to describe everything as if it is happening to someone else. The descriptions must clear and concise as if understanding another person.
- Observing other people. Guide them to observe one person. Look at their dress, appearance, body language, or how they move to another person. These observations are not meant to guess, judge, or interpret them or their actions. It is just meant to watch and become aware of what is going on.
- Teach children to slow down. This is not to postpone things. They must instead learn to enjoy every moment of a given activity.
- Another activity is 4-5 minute regular/periodic practice of breathing exercises. It is more to do with observing or paying attention to how we breathe. Children should observe the rhythm of breath in-out and air temperature.
- The body scan is a popular exercise among mindfulness practitioners. It can be practiced anywhere and everywhere. When waiting for the bus, when brushing teeth, or just about every moment, learn to observe your body. Scan from head, face, neck, shoulders, chest, legs, and arms. All observations are preferably made with eyes closed. This is to avoid distractions.
- To experience tastes, take fruit like orange, for example. Take an in-depth look at the fruit. Pay attention to its shape, Feel its texture. Smell the fruit. Close the eyes and smell it again. Hold the breath and feel how long the perfume stays. Mindfulness is all about noticing what is happening right in front of the present moment. Even routine chores can appear appealing by visualizing them during a mindfulness exercise. Teach children to focus on shapes, colors, movements, or textures of everyday objects, events, or happenings.
- Mindful listening is to take note of stories told by others and re-telling them as if they are your own. Naming one's or others' emotions is another mindfulness exercise for children. Mindful eating is not just about appreciating food, but also understanding why you are eating. Most of us eat not because we are hungry. We are conditioned to eat at given times. Every bout of eating must be enjoyed with the smell and looks of the food. Food is not to be gulped. It is to be cut into small pieces and relished one by one. Snacking is an example of compulsive eating. Before taking something in-between meals, ask yourself: "Am I starving? Why do I want to eat this now?"
- Body stretching is a needed exercise for all in this modern sedentary world. Like everything, stretching must happen regularly-but slowly. Overly engaging with gadgets, devices, and the digital world can turn unproductive. Children and youth need not get rid of them. They must enjoy a mindful pause to give some space and enjoy calmness. A 30-minute walk is the last thing for us to do. Walking is not loitering. It must be an opportunity and occasion to reflect on how the body moves, feels as the feet hit the ground, or listen to sounds of people and objects around, notice the air temperature outside or inside the body.
- Notice five things. Especially when you are overwhelmed by stress or anxiety, practice noticing five things you see, hear or feel through touch to help you be present. This can be played as a game with the child. Ring a bell and ask the child to listen carefully to the vibration of the ringing sound. When the bell sound stops, ask the child to pay close attention to other sounds. Ask them to share the experience.

Box 8. Institutions for professional training in mindfulness

- Acem Meditation India, chapter for its founding not-for-profit at Norway
- American Mindfulness Research Association
- AskKrishna Centre for Mindfulness Private Limited, Coimbatore, Tamil Nadu, India
- Basic, foundation, and advanced offline and online mindfulness courses are available at:
- Center for Mindful Living, next to St. Francis College for Women, Begumpet, Hyderabad, Telangana, India.
- Center for Mindfulness in Medicine, Healthcare and Society, University of Massachusetts Medical School, North Worcester, MA
- Indian School of Counseling and Healing Studies (ISCHS), with pan India operations.
- Institute for Mindful Leadership,
- Institute of Meditation and Psychotherapy
- International Mindfulness Teachers Association,
- Mindfulness Association at Lockerbie, Scotland
- The Center for Mindfulness Eating (TCME), Columbia, MO
- Z Meditation Retreats, Dharamsala, Himachal Pradesh, India

RESEARCH

A randomized control pilot trial to examine teacher-implemented classroom-based mindfulness meditation in sixth-grade children showed significantly decreased scores on clinical syndrome subscales of state-trait anxiety in both groups (Britton et al. 2014). A mindfulness meditation project on training primary school teachers to deliver a ten-week mindfulness curriculum and optional daily mindfulness exercises to students in grades 5 and 6 (ages 10 to 12) showed a significant decrease in the overall scores thereby proving to be a useful tool for school mental health promotion program (Joyce, Etty-Leal, Zazryn & Hamilton, 2010). A meditation program was introduced into Catholic schools in Queensland, Australia, in 2006, which engaged more than 10,000 students between the ages of 5-18 years. Feedback from students, teachers, and parents on the perceived effects of this program indicated favourable impressions or benefits, such as increased relaxation and feelings of calm, reduced stress, anger, and improved concentration (Campion & Rocco, 2009). A 24-week mindfulness training program affected first, second, and third-grade students' outcomes on measures of attention showed significant improvements between those who participated and did not (Napoli, Krech, & Holley, 2005). A pilot trial of Learning to BREATHE, a mindfulness curriculum for adolescents created for a classroom setting helped their emotional regulation, and well-being, or decreased negative affect or increase feelings of calmness, relaxation, and self-acceptance as well as decrease tiredness, aches, and pains in the participants (Broderick & Metz, 2009).

Meditation practice for children provides a good starting point for learning and creativity. They help combat the pressures of modern living and find better ways to focus minds (Kimbrough et al. 2010). What about claims on religious involvement and health outcomes (Box 9)? Claims about religion, spirituality, and health appear in popular media and professional journals. The validity of these claims was examined in two ways: (a) what percent of articles were potentially relevant to such a claim, and (b) the quality of the data in articles cited as providing support for such claim. Of the 266 articles published in the year 2000 as identified by the Medline search, only 17% were relevant to claims of health benefits associated with religious involvement. About half of the articles cited in the reviews were irrelevant to these claims. Many studies had methodological flaws or were misrepresented. It was concluded that there is little empirical basis for assertions that religious involvement is associated with beneficial health outcomes (Bartkowski, Acevedo, & Van Loggerenberg, 2017).

Box 9. Some myths about mindfulness for children

- It takes much time for children to learn mindfulness;
- Mindfulness is just for children who have experienced trauma or those with behavior problems;
- Mindfulness will make children weak and lose their drive for success;
- Mindfulness is a religious practice;
- Mindfulness makes you turn inward and become more isolated;
- The goal of mindfulness is to achieve peace or bliss;
- By constant practice of mindfulness, you can eliminate all thoughts;
- Mindfulness is the same as relaxation and meditation;
- Mindfulness will make all my problems go away;and,
- Mindfulness can be learned by reading good books about it.

Source: Harris, 2017; Moreno, 2017

CONQUESTS, CRITICISM, AND COLLAPSE

There are potential merits of mindfulness training in early childhood. Using age-appropriate activities to encourage children reflect on their experiences may develop self-regulation during problem-solving in more playful or exploratory ways. Mindfulness practice is *attributed to many benefits for its practitioners*. It relieves stress, treats heart disease, lowers blood pressure, decreases obesity, improves sleep, minimizes gastrointestinal difficulties, emotional reactivity, brooding, pain or depression, acts as buffer against bullying, boosts gray matter in brain, working memory and resilience, improves attention-concentration, patience, self-acceptance, well-being, physical and mental health, academic success, creativity and innovation in children and young college students. This is quite a flatteringly impressive list of goodies for one procedure, protocol, or practice.

Mindfulness is practiced for ages. Today, in the west, it has become a *million-dollar business*. Mindfulness has become synonymous with meditation. MBSR is the in-thing nowadays. It is offered as a panacea to all the ills of contemporary human problems. It is touted as a therapeutic tool to help anyone suffering from stress, anxiety, depression, addiction, and chronic pain. It has found its way into classrooms, board rooms, sports, business houses, as well as into the smartphones of people as internet apps like Headspace and Calm.

Mindfulness advocates believe that paying close attention to the present moment without passing judgment has the revolutionary power to transform the whole world. It is seen as magical thinking on steroids. Kabat-Zinn calls it that contemporary humankind has a “thinking disease.” He diagnosed that the “entire society is suffering from attention deficit disorder-big time.” Attention has now become increasingly monetized by multinational companies, information technology, and corporate capitalism. As with the fast-food industry to satisfy the palate, a six-week MBSR program offers immediate relief to all modern age ills. Mindfulness has been *oversold and commoditized* (Hyland 2016). The commercialization of mindfulness business is like fashion to wear jewellery inscribed with mantras, purchase meditation mats or download the latest app.

There are critics against the use of mindfulness in children and adolescents, especially in school settings. *Many observers are critical of the practices of meditation* prescribed once a week for a semester to high school pupils in the International Baccalaureate. Mindfulness sessions are a grab bag of activities. Slow breathing exercise, closed eye meditation, concentrate on sounds, posturing by sitting cross-legged, passive self-observation of one’s flowing thoughts or images, group discussions on mind-body connections, and noticing how inner emotions manifest in the body are fostered on students in “mindful” schools.

Academic and media interest in mindfulness has soared from almost nil in the early 1970s to over 1200 research articles per year in 2015. Research ranges from neuroscience to psychiatry. The claims vary from instant relief to anxiety, depression, chronic pain, or fears to attenuation of the primitive areas of the brain like the amygdala and brain stem. Studies report increases in working memory and decrease in mind wandering. The critical questions posed by sceptics are: does a few days or week of mindfulness instruction lead to drastic or permanent reduction of psychological stress? Is mindfulness any more effective than other stress-reduction techniques? Does mindfulness work with children and adolescents in school settings? If it does work, then how or why does it work? Is the available research high quality, well-controlled, and free of bias?

Meta-analytic reviews have reported that *mindfulness is no more effective than other wellness interventions* like exercise, Jacobson’s Progressive Muscle Relaxation, or cognitive behavior therapy. This is like a glass-half-empty or half-full type of finding. Only 47 out of 18000+ citations on mindful-

ness reviewed found to have a robust methodology (Goyal et al. 2014). One of the biggest criticisms of mindfulness is that it is all kind of vague. What is unanswered is whether the real contribution is the practice of mindfulness itself.

What about research on children? A review of studies (half of which were not published in peer-reviewed journals) reported that mindfulness improved cognitive performance with less impact on stress and coping (Zenner, Herrnleben-Kurz, & Walach, 2014). Another review of 15 studies on school meditation programs, including TM and mindfulness, found them to be helpful in the majority of cases, but the cumulative effects were small (Waters, Barsky, Ridd, & Allen, 2015). A third meta-review compiled 72 mindfulness studies of youth in and outside classroom settings. Only 35 studies were a randomized control design. The general conclusion was that there is heterogeneity in the samples, many studies were underpowered, and measuring the effects of mindfulness is challenging (Klingbeil et al. 2017). Many things go into what is called mindfulness. The effects may be just due to taking time out from the regular classroom schedule, taking part in a group activity, or being taught by an inspired teacher. In mindfulness studies, it is hard to control the placebo effect. *It may also be due to people's expectations*-which are hard to control (McKeering & Hwang, 2019).

The *definition of mindfulness is itself a matter of debate*. Bishop et al. (2004) proposed (a) attention and awareness and (b) acceptance as a two-component model for their definition of mindfulness. Labeling mindfulness as a “meta-cognitive skill” (p.233) is misleading. Self-testing forms a typical meta-cognitive strategy before acceptance. Mindfulness works only at a perceptual level by observing thoughts or emotions. Although the two forms of mindfulness are distinguished, the distinctions are not maintained consistently. They are used interchangeably and confusingly (Brown & Ryan, 2004).

It is alleged that the whole field of mindfulness suffers from *publication bias*. There is a tendency for reporting positive results and ignoring contradictory evidence (Coronado-Montoya et al. 2016). Mindfulness is harmless, but it is *not for all children*. Children or youth with a pre-schizophrenic, latent, or incipient schizophrenia is advised against attempting mindfulness techniques. It may lead to an exacerbation of the dormant symptoms. Nothing is for everyone. The same applies to mindfulness.

In recent times, there has occurred a “*mindfulness backlash*.” Some people view it as a packaged commodity and warn against it. If mindfulness was at its peak in 2014, the next year, there was backlash. It became a “tool for corporate control,” was “oversold and over-hyped” as a “cure-all” for all ills in society. Mindfulness may be a long-term journey that is healing and nourishing. However, if one is facing difficulties and seeking help, it might not offer the support they are hoping for. It might be appropriate to see a therapist than practice mindfulness. Mindfulness *does not need to have scientific approval* on its psychological benefit. Nobody demands or insists on any double-blind placebo strength evidence before teaching dance, drama, poetry, or literature to school students. Likewise, mindfulness can also be taught to school children. There is no need to frame it as an intervention. However, its inclusion in school should not be at the cost of other central studies. There can be questions on their time and cost.

Some *religious conservatives view mindfulness as a Buddhist practice* and not embraceable by other religions. It is argued that the majority of public schools are supported and administered by upper- and upper-middle-class Buddhists of European descent. They target lower- and working-class minority populations in propagating their hidden agenda of running mindful school programs. Others insist that it has nothing to do with religion.

In sum, mindfulness appears to be a *low-cost, non-pharmaceutical, and easily implemented treatment* that may be useful for providing adequate mental health care to a large number of patients who are currently underserved. The recent trend in clinical research is to register the study before the trials

begin. Preregistration is now seen as a research best practice, as it limits researchers' ability to skew conclusions after the data comes in. Such practices are uncommon in mindfulness research.

The literature on mindfulness is pervaded by a ***lack of conceptual and methodological self-criticism***. No consideration is given for individual differences within its experience. Although some people may benefit from its practice, others will not be affected in any substantive way, and many may suffer moderate to serious adverse effects. There is a ***need to improve the quality of research*** into mindfulness interventions and outline critical issues for clinicians considering referring patients for these interventions (Farias & Wikholm, 2016). There is still ***no overarching or specific theoretical basis or models*** to explain the phenomenon of mindfulness although sporadic attempts have been made in this direction (Brown, Ryan, & Creswell 2007). Much of the research in this area has ***ignored work on understanding the naturalistic development trajectories*** of mindfulness. This forms a needed area of inquiry with implications for child-based mindfulness training practices.

The intensity of the practice, the vulnerability of the person, the quality of instruction is all critical factors to its risks. It was hailed as a revolution or a global renaissance. What exactly has been overturned? The conduct of business is everywhere as usual, political corruption goes on unabated, public schools are still suffering from neglect and underfunding, prison continue to be overcrowded, and violence against women and oppressed continue. While all this is happening, the cheerleaders of mindfulness 'revolution' have reduced it to a commodity. Without seeking solutions for these socio-economic issues, mindfulness practitioners shift the burden of responsibility to the individual for managing their well-being and by privatizing or pathologizing stress. Kabat-Zinn goes a step further when he claims that our "entire society is suffering from attention disorder-big time." Stress and social suffering are not the results of massive inequalities, nefarious corporate business practices, or political corruption, but of a crisis inside our heads, what he calls a "thinking disease." Mindfulness is claimed as the new immunization, a mental vaccine that supposedly can help us thrive amidst the stresses of modern life.

FUTURE DIRECTIONS

There is a possibility of its increased application to deal with social problems in the classroom, workplace, and the social predicament of getting old. There can be mindful ways of dealing with increased ethnic diversity, differentiating between changing the workplace work and changing the character of the work itself, and in classroom settings (Langer & Moldoveanu, 2000). Garland and Gaylord (2009) suggest four areas of interest that are important for a future contemplative science of mindfulness: performance-based measures of mindfulness, scientific evaluation of Buddhist claims, neuro-phenomenology of mindfulness, and measuring changes in mindfulness-induced gene expression. The need for research on mindfulness in child and adolescent psychiatry is increasingly being realized.

CONCLUSION

Whatever is the name or nature, means or method, process, or procedure, a few moments of inner-directed intermittent preoccupation with or without an accompanying posture as lifestyle practice, whether experience or evidence-based, is required in the contemporary living for human existence. Mindfulness is a widespread lifestyle practice than an evidence-based therapeutic device. Misinformation and poor

methodology associated with past studies of mindfulness may lead public consumers to be harmed, misled, and disappointed.

This chapter discusses the difficulties of *defining* mindfulness, delineates the proper scope of research into mindfulness practices, and explicates crucial *methodological* issues for interpreting results from investigations of mindfulness. The chapter draws on diverse areas of expertise to review the present state of mindfulness research, comprehensively summarize what we do and do not know, while providing a prescriptive agenda for contemplative science. A particular focus is given for assessment, mindfulness training, possible adverse effects, and intersection with brain imaging. The goal is to inform interested scientists, the news media, and the public, to minimize harm, curb poor research practices and the flow of misinformation about the benefits, costs, and prospects of mindfulness meditation.

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KEY TERMS AND DEFINITIONS

Meditation: The practice of this technique involves focusing the mind on a particular object, thought, or activity by increasing attention and awareness.

Parenting: The activity of bring up children. It covers the processes and practices of utilizing the knowledge and skills appropriate to planning for, creating, giving birth to, rearing, and providing care for offspring. There are many types or forms of parenting. Mindfulness parenting is one such strategy.

Professionalism: A characteristic that refers to the ability to hold and maintain certain standards of competence achieved at the end of formal education and training in the chosen specialty area. The addition of mindfulness practices into the armamentarium of various professions has been helpful for both practitioners and their clients.

Relaxation: The emotional state of low tension and anxiety is relaxation. In this condition, there is the absence of arousal that could come from anger, fear, excitement, or stress. There are many techniques of physical and mental relaxation, including mindfulness meditation being one of them.

Stress Reduction: The body's normal response to anything that disturbs its natural physical, emotional, or mental balance is called stress. In small amounts, called eustress, it is beneficial and adaptive. When severe, it is called distress and requires various strategies that counteract this response and produce a sense of relaxation and tranquility.

Chapter 3

Is There a Right Way to Parent?

Focusing on Mindful Parenting

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ABSTRACT

The chapter focuses on bringing mindfulness into the parent-child relationship. The concept of mindfulness is discussed and its dimensions are examined as having an impact on effective parenting and a harmonious relationship between the parent and child. A model of mindful parenting emphasizing on the social context of parent-child relationship is described. The chapter highlights the significance of mindful parenting which includes being mindful to one's self as well as being mindful of the relationship between the parent and child, indicating a shift from doing mode to being mode. Thus, mindful parenting requires the parent to be mindful of the parent-child relationship itself rather than considering parenting as a task to be carried out and just doing or acting in this relationship. Infusing mindfulness into the dynamics of the parent-child relationship will usher in the well-being of both child and parent.

INTRODUCTION

Each child is unique. Each parent is a unique individual. They have their own narrative. Each family also has its own narrative, context, and history. Given this uniqueness associated with each parent and family, can it be said that there is a 'right way for parenting'? There can be no one way to parent. It is important to take into account a host of factors related to the parents, family, and the child herself/himself to decide the course of parenting. However, there can be a broad agreement about the goals and objectives of parenting that focuses on nurturing the child and making the child a good human being. Thus parenting aims at providing a safe and secure environment, fulfilling all the basic needs, providing love, care and support for the child to grow and develop – nurturing the child in physical, cognitive, social, emotional and spiritual aspects. Further, it aims at making the child a good human being having the values and character – kindness, honesty, empathy, self-confidence, self-worth, cooperation, etc. that make life worthwhile and meaningful.

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Two main things in parenting relate to the protection and development of the child. In accordance with Maslow's needs hierarchy, parents also need to first fulfill the basic survival needs of the child and then focus on their development in different aspects such as emotional, social, and character development. As proposed by Maslow's hierarchy of needs (1943), the satisfaction of physiological needs and safety of the child are the primary needs that the parents are required to meet. Then there is the need for love, affection, and belongingness which the parents try to fulfill. Next is the need for self-esteem followed by self-actualization. Self-esteem need refers to the child's need for approval, achievement, recognition, and to feel accepted and competent. Self-actualization need refers to the need to fulfill one's potentials and realize one's capabilities. The parenting approach followed by parents will facilitate in achieving this need in the child later on by developing the required qualities and skills in them. Depending on the parenting approach adopted by the parents, these needs of the children are satisfied to various extent.

However, the larger goals of parenting are usually neglected in the competitive world where parents want to see their child on the top, as the best amongst others, not the best of herself/himself. As a result, the child may gain wide knowledge, acquire various skills, achieve a lot, but may not develop self-awareness, self-connection and self-realization that will give a true purpose to one's life. Moreover, the parents themselves find the entire parenting process to be very exhausting, frustrating and disrupting their peace. Parenting though definitely a challenging task can also be rewarding and an enlightening experience if we bring in the mindfulness component to the entire parenting approach.

This indicates the importance of being mindful to one's parenting. It highlights aspects of positive parenting. Being mindful will enable the parents to focus on themselves and their approach to child-rearing and how they can help realize the goals of parenting by developing the child into a good human being. The present chapter thus aims at discussing the significance and implications of a mindfulness approach to parent-child relationship.

BACKGROUND

Meaning of Mindfulness

Mindfulness, as described by Kabat-Zinn (2003, p.145) refers to the moment-to-moment awareness that emerges through paying attention, on purpose, in the present moment, and with a non-judgemental attitude towards the present experiences. This definition highlights four main aspects: paying attention, the present moment, non-judgemental attitude, and a sense of consciousness or awareness. Thus it talks about mindfulness as a state of consciousness in which one brings awareness and attentiveness to the immediate experience (Grossman, 2010). One's complete attention is on creating awareness about the present moment experience.

Further, when noticing or attending to the experiences in the moment, one needs to have a non-judgemental attitude towards it. For example, when one is eating ice-cream, mindfulness will involve paying attention to the whole experience of eating the ice-cream, noticing how the ice-cream looks, the texture, how it feels to the tongue and how does it go inside the mouth and body, the entire experience of eating it. While attending to this moment-to-moment experience, one is just noticing it without assigning any kind of value judgement. As Baer (2003) observes, it is the non-judgemental observation of the ongoing stream of internal and external stimuli as they arise.

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Most people usually go through their daily life without any awareness and significantly, are not even aware about running on this autopilot mode without noticing their thoughts, feelings and behaviours. The sensory information that one receives and experiences each moment quickly lead to thoughts, emotions and judgements based on one's prior experiences, beliefs, and morals. People react to the situations, events and other people around them based on their prior beliefs, values and expectations shaped by their own life history. This sensory-thought-emotions reactivity chain (Bluth & Blanton, 2014) needs to be broken to experience or savour the moment. Otherwise, people will be acting on "automatic pilot" in most situations, reacting emotionally without discernment, often leading to misperceptions of the situations (Grossman, 2010). Although automatization, i.e., activation of habitual behavioral scripts is useful as it frees our mind to perform higher levels of cognitive functioning, Langer (1992, 2005) points out that individuals spend an overextended portion of their waking time in this state and this can prove costly to their performance, cognitive functions, psychological well-being, and even longevity.

Mindfulness will help one to pay attention to the moment without any kind of judgements or conclusions. The practice of mindfulness facilitates a 'reperceiving' or shift in perspective of one's experiences (Shapiro, Carlson, Astin & Freedman, 2006). It will enable one to be aware of such automatic judgements and conclusions, and know what exactly is happening at the present moment. It brings in flexibility in perceiving things which reduces reactivity and allows for greater acceptance. Maintaining a mindful awareness enables the individual to exercise choice in responding to experience and provides an alternative to engaging in habitual, or "automatic," cognitive and behavioral reactions to internal and external experience (Duncan, Coatsworth & Greenberg, 2009).

Thus being mindful leads one to engage in self-regulation (Brown, Ryan, & Creswell 2007). When one becomes aware of the present sensations, thoughts and feelings, one acquires the capacity to regulate these for more effective functioning. This capacity for self-regulation is also seen in Langer's conceptualization of mindfulness as an active and effortful mode of conscious awareness (Langer & Moldoveanu, 2000, p. 2), characterized by (a) self-regulation of one's attention (which is defined as "self-exerting control to override prepotent response" (Vohs et al., 2008, p. 884), (b) directing one's awareness to external stimuli, and (c) engaging with it cognitively in a creative way. It refers to mindfulness as a cognitive state, aiming to increase cognitive and behavioral control, thereby facilitating people's capacity to tolerate uncertainty, to be less reactive and more flexible, and to experience a more meaningful engagement with their environments (Carson & Langer, 2006). Here, mindfulness is suggested as similar to creativity. Whereas Kabat Zinn's (Kabat-Zinn et al., 1992) conceptualization of mindfulness is therapeutic in its orientation and involves mindfulness meditation as a primary intervention for the alleviation of a variety of mental and physical conditions. The former highlights mindfulness as a cognitive mode, a mindset of openness to novelty (Langer, 1989), and the latter emphasis is on mindfulness as a meditative practice (Hart, Ivztan & Hart, 2013). This has led to various mindfulness-based interventions to develop mindfulness through meditative practice.

The essence of mindfulness can be summed up as full awareness by the individual of their experience in each moment, equally open to whatever it has to offer and free of the domination of habitual, automatic, cognitive routines that are often goal-oriented and, in one form or another, related to wanting things to be other than they are (Teasdale & Chaskalson, 2011a, 2011b). It is the awareness that arises through intentionally attending in an open, accepting, and discerning way to whatever is arising in the present moment" (cf. Shapiro, 2009, p. 556). The term mindfulness can be used as an 'outcome' as well as a 'process'. Mindfulness as an outcome results in mindful awareness that will have implications for

further course of action, whereas process indicates the practice of mindfulness, the experience of ‘being’ in mindfulness.

Mindfulness can be said to consist of five mindfulness skills: acting with awareness, observing, describing, nonreactivity to inner experience, and nonjudging of inner experience (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006; Carmody & Baer, 2008) that represent a higher-order mindfulness factor. Acting with awareness refers to noticing and is the opposite of absent-mindedness; observing is the intentional focusing of attention on stimuli; describing refers to describing experiences with words; non-reactivity to inner experience involves decentering from mental events and allowing thoughts to be “just thoughts” or affect to be “just feelings” instead of over-identifying with them; and non-judging of inner experience involves self-regulation of reactivity to mental events, including social information processing (Sethi & Sharma, 2018).

This indicates taking in or noticing the sensation, feelings, thoughts and actions and intention in the present moment without ascribing to any biases, beliefs, value judgement, or conclusions. This skill does not come easily and needs to be cultivated. Usually, people can sustain full and focused attention for a short time, but it requires to be for a longer duration of time on a consistent basis to be effective in any situation. This requires practice and effort to develop the mindfulness skill which then can be applied in various domains of life including parenting. Intervention programs based on mindfulness focus on the skills included in it. Accordingly, mindfulness-based interventions include the following components: being aware; attending to sensations, perceptions, thoughts and feelings; reducing working on automatic pilot; non-reactivity; and non-judgemental.

MAIN FOCUS OF THE CHAPTER

Mindful Parenting

Mindfulness involves being mindful of our body, feelings, mental events and phenomena. Mindfulness has several applications ranging from our family to the education set up to the workplace. It plays a significant role in curtailing negative functioning and enhancing positive outcomes in several important life domains, including mental health, physical health, behavioral regulation, and interpersonal relationships (Brown, Ryan & Creswell, 2007). When we apply mindfulness to parenting, it refers to adopting a mindfulness approach to parenting. Mindful parenting includes bringing or infusing mindfulness into the dynamics of the parent-child relationship.

Parenting is an intense, stimulating, challenging, exhausting as well as rewarding experience. It is a major responsibility for which usually one does not receive any formal training, but it is one’s own knowledge, understanding and observation in the family that influences how one goes about parenting. In addition, the self-help books on parenting provide some discussion on dealing with specific behavioural issues in children. However, as discussed earlier, each child along with their parents and the particular family context presents a unique combination marked by a dynamic interaction of internal and external factors. This makes it difficult to have a prescribed set of procedures for parenting. This leads to a less than optimal way of functioning as a parent which ultimately affects negatively the development of the child and the harmony in the family. Hence the emphasis needs to be on cultivating emotional awareness about the stakeholders in the present moment, with clear parenting goals that will help understand the particular context resulting in appropriate behavior.

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In the rising trend of nuclear families, more and more dual working parents find it a challenge to maintain balance and give due attention to their child. Even single working parents, they may face difficulty in raising their child due to wide exposure to various issues such as social media. In the present day competitive world, every parent wants the best for their child. In the parental zeal of turning every child into the limelight, one comes across different styles of parenting governed by the need to control, elicit compliance, and exercise power in the parent-child relationship. On the other hand, there are also uninvolved parents characterized by a laissez-faire approach.

The three main parenting styles as given by Baumrind (1971) are authoritative, authoritarian, and permissive style. Later on, Maccoby and Martin (1983) expanded it along the dimensions of responsiveness and demandingness. Thus there are four parenting styles: authoritative, authoritarian, permissive and negligent parenting style. The authoritative or democratic approach is advocated to be the best and balanced approach to parenting. As the term indicates, this approach is characterized by a democratic approach where the child is considered as an individual and a fair, just and equal approach is followed. There is mutual respect and children are given responsibilities. However, along with being given the right to make choices and exercise their independence, parents follow a positive discipline approach ensuring logical and fair consequences. These parents are responsive and nurturing.

In contrast, authoritarian parents follow a very strict approach to exercising control over their children. It is marked by rigid rules and instructions for the child and harsh consequences in case of non-compliance. Permissive parents are over indulgent who go by the child and allow everything the child wants. Thus they are responsive to the needs of the child and exhibit a warm approach. However, there are no clear guidelines or goals of parenting as in authoritative parenting. Negligent parents come across as cold parents who are least concerned about their child's development. They are unresponsive, uninvolved and indifferent to the child's needs. Thus different parenting styles are characterized by different emotional climates that parents create wherein they may use different parenting practices, i.e., specific actions they employ in parenting.

Gouveia et. al. (2016) showed that mindful parenting was positively associated with authoritative parenting and negatively associated with authoritarian and permissive parenting styles. All these parenting styles are characterized either by a focus on the fulfillment of the needs of the parents or the child. Thus the goals of parenting may be self- or parent-oriented, or child- or relationship-oriented (Dix & Branca, 2003). Parent-oriented interactions may not achieve the desired goals, whereas adopting a mindfulness approach to parenting facilitates a child-oriented interaction. It takes into account the long-term relationship between the child and the parent and nurtures a quality relationship. With mindfulness, parents develop awareness of their present moment experiences and how it may impact the parent-child relationship. Accordingly, they can exercise their choice to regulate their thoughts, feelings and actions so that it positively impacts the parent-child relationship. They have more positive interactions with their children (Turpyn & Chaplin, 2016). As Bailey (2002, p.99) points out it is not that the other person or event has 'made' one angry, happy, sad or guilty. But as parents, one needs to be accountable for their own emotional states, take charge of their feelings so that they present a good model for the growing children.

Mindful parenting was first proposed as a concept by Myla and Jon Kabat-Zinn in 1997, identifying sovereignty, acceptance, and empathy as the salient features of parenting. According to them, sovereignty is described as the process of recognizing the child's "wholeness" by "seeing beneath behavior"; and acceptance refers to "an attempt to come to terms with the nature of things", within the parent, the child, or a particular situation. The parental attitudes of compassion, acceptance and kindness, along

with them being fully present during their interactions with their offspring, are key characteristics of mindful parenting.

Thus, mindful parenting is defined as parents' abilities to pay attention to their child and their parenting in a way that is intentional, present-centered, and nonjudgmental (Kabat-Zinn & Kabat-Zinn, 1997). It refers to how parents bring mindfulness to their thoughts, feelings, and behaviors around parenting, and how they bring compassion, acceptance, and kindness into their interactions with their children (Duncan et al., 2009).

Mindful parenting is positively associated with positive parenting as reflected through parental warmth and affection, using positive reinforcement, using clear instructions, and facilitating supportive parent-child communication (Parent et al., 2016), whereas it is negatively associated with a construct of negative parenting, marked by intrusive parenting, ineffective and coercive discipline, punitive measures, controlling attitude, lack of anger control, and expressed hostility.

Issues and Challenges in Parenting

Various concerns and issues in parenting make it so stressful and challenging no matter how prepared one feels for it. In the absence of any formal training, it is taken for granted that it will come (the skill of parenting) once one becomes a parent. Typical issues revolve around differentiating between the bad behavior of the child and bad child, do parents need to influence the child or to control the child, is discipline equivalent to punishment (positive discipline), being a friend to the child or staying as a parent to the child and so on. Many times, one fails to distinguish the child as an individual in his/her own right and the behaviours or actions displayed by them. For instance, if a child has stolen a pencil from another child in his class, it does not mean that the child is a thief or the child is bad, but it is that particular behavior of the child - stealing that is bad and needs to be addressed. So, there is a need to be mindful about it and accordingly not equate a particular behavior of the child with the whole of the child's being. Similarly, one needs to be mindful about equating discipline only with punishment. Positive discipline sets clear guidelines and draws on the strengths of the child. It respects the child's individuality and does not humiliate the child. Rather, it tries to guide the child by providing constructive criticism. This requires being mindful of parenting practices that seek to influence the child in a positive way rather than controlling the child or exercising power over the child.

In addition to these broader issues related to parenting, there are also specific concerns that create stress in parents: (a) the normal stresses arising out of the growing up of children. These are related to the developmental tasks they need to carry out at each stage for smooth development and transition to the next stage of development; (b) mental disorders in children, as well as the parents themselves, affect the child-parent relationship. It creates stress meeting the practical demands related to the mental disorders and also affects negatively the expectations, communication and bonding between the parents and child; and (c) the stress arising out of the modern-day living and the socio-cultural changes in the present society affecting the family system, marital relationship and the parent-child relationship.

Mindful parenting can help one to deal with these issues in an effective manner. Mindfulness integrated into parenting brings about a personal transformation in the parents and creates a fulfilled parent-child relationship. Thus mindful parenting involves accepting the child, bringing in awareness to the interaction between the parents and the child, managing the emotional tensions and extending compassion towards the child as well as one's own self. As Kabat-Zinn and Kabat-Zinn (1997) put it, "Mindful parenting is an ongoing creative process, not an endpoint..... it includes: (a) greater awareness of a child's unique

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nature, feelings and needs; (b) a greater ability to be present and listen with full attention; (c) recognizing and accepting things as they are in each moment, whether pleasant or unpleasant; (d) recognizing one's own reactive impulses and learning to respond more appropriately and imaginatively, with greater clarity and kindness” .

Evolutionary Perspective on Parenting Stress

The importance of bringing in mindfulness to parenting can also be realized from an evolutionary perspective (Bogels & Restifo, 2014). Parenting requires a large number of resources both in terms of quantity as well as quality. Availability, accessibility, coordinating and effectiveness of such resources are important factors that can help reduce parenting stress. Earlier it was the whole community that shared the responsibility of raising the child in one or the other way. As the African proverb goes, ‘It takes a village to raise a child’, indicates the huge resources that the parents, especially the mother, need to bring up the child. In the absence of such resources through shared care in the present modern times, and having the images of idealized parent, specifically for motherhood, there is parenting stress leading to feelings of guilt and inadequacy, and anger. Mindfulness can help here by making the parents realize the evolutionary sources of their stress that will help them not to blame themselves or the child but to put the stress in a proper perspective. Instead of feeling guilty that they are bad parents, they can start thinking about what else they can do to bring balance and have resources for their child care. Further, the modern-day notion of being individualistic and the situational demands of being a nuclear family results in the reality that the parents only take care of their child; however, this is not consistent with our evolutionary history. The shared care of the earlier times allowed mothers especially to have time to take care of themselves also, thus resulting in less stress to themselves and consequently better interaction and relationship with their child.

Another point that highlights the evolutionary source of parental stress and why mindful parenting is the requirement today is our affect regulation system that includes the drive system, threats system and the contentment/affiliation system. Drive system reflects our motivation to achieve, strive for things, resources and pleasure. It served the need for survival in evolutionary times. However, the modern individual is constantly on overdrive trying to achieve and prove oneself in this competitive world, with a pressure of time and resources. As a result, one feels inadequate, self-critical, low self-value and constantly stressed. Our threats system was activated in evolutionary times to protect us from real physical dangers. However, in the modern days, our threats are constant not in the form of physical threats, but social and interpersonal threats. So, the threats system gets continually activated resulting in stress and other negative emotions. The contentment/affective system is marked by calm, peacefulness, safety and security that comes from bondings. The oxytocin released by this system has a calming effect on the autonomic nervous system activated under threats. However, given the modern-day demands of life, there is less time and energy for occasions of bonding and this system remains under activated.

Thus the three circles/systems of affect regulation (Gilbert, 2009) – threats, drive and contentment/affiliation – have their evolutionary significance. But with the changing nature of threats, being on constant overdrive and under activated contentment system, human beings are constantly feeling stressed and are more reactive in nature. Mindfulness practice can help the parents bring a shift from ‘doing mode’ to ‘being mode’. Mindful parenting will allow the parents to pause and be aware of the reasons and take a compassionate view of oneself. It will help them to reflect on the resources and balances they can bring into their life. So, they will have the choice to respond differently to our inherited automatic reactions.

Further, strengthening of the contentment system through mindfulness meditation will activate positive emotional states in the brain (Davidson & Begley, 2012). Siegel (2009) has also postulated that mindful awareness promotes positive changes and well-being through altering brain functions.

SOLUTIONS AND RECOMMENDATIONS

A Model of Mindful Parenting

Duncan, Coatsworth & Greenberg (2009) have developed a model of mindful parenting based on the application of the concept and practices of mindfulness to the social context of the parent-child relationship. The model envisions relationship between parent and child as a social context which requires focus on the interpersonal relationship itself to make it more effective and fulfilling relationship. Mindfulness practices can help create this awareness of the dynamics of parent-child relationship. It can lead to higher quality parent-child relationships and more effective parenting practices. Further, it can allow for the cultivation of more open and trusting family relationships and parenting styles that will promote the healthy psychosocial development of the child (Baumrind, 1989).

The model of mindful parenting draws from the concepts and practices of psychological mindfulness (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006; Brown & Ryan, 2003), mindfulness-based interventions (Kabat-Zinn, 1994, 2003), and contemporary theoretical and empirical writings about parenting. It encompasses five dimensions of mindful parenting relevant to the parent-child relationship: (a) listening with full attention; (b) nonjudgmental acceptance of self and child; (c) emotional awareness of self and child; (d) self-regulation in the parenting relationship; and (e) compassion for self and child.

Listening with Full Attention

It involves paying undivided and full attention while listening to the child. This helps create an authentic parent-child relationship as the child perceives that they are being truly listened to with complete attention by the parent. It also enables the parent to understand the child and facilitates effective interaction.

Non-Judgemental Acceptance of Self and Child

Interpersonal relationship and interaction among human beings are always influenced by their beliefs, attitudes and values, and this is no exception for parent-child interaction. Parents' beliefs about their child affect their perception, expectations and behavior towards the child which in turn influences the child's behavior. For example, if the parent believes that the child is lazy, s/he will expect accordingly that the child will not be able to do the work and consequently, the parent will not ask the child to do that work; further to it the child will also believe that s/he is not capable of doing that work. Mindful parenting involves a non-judgemental acceptance of both the self and the child. It is fundamentally accepting the child with whatever abilities, skills and traits s/he has, that is, accepting the child as s/he is. It may be noted here that acceptance does not mean approving. Mindful parents clearly convey the rules and boundaries and express disapproval in case of non-compliance behavior of the child.

Emotional Awareness of Self and Child

As pointed by Dix (1991), the parent-child relationship is greatly influenced by parents' affective activation, engagement and regulation. Strong emotions generated in the parent-child interaction can lead to automatic thought processes and behavior. To prevent this chain of automatic processes triggered by strong and heated emotions, parents need to be emotionally aware of their internal states as well as the child so that they are able to gain perspective and respond appropriately to the situation.

Self-Regulation in the Parenting Relationship

Along with full attention and emotional awareness, parents need to self-regulate also so that they are able to exhibit appropriate behaviours to their child. This also serves as a role model for effective social behavior for the child. Thus in a heated discussion with the adolescent about the night curfew (right time to return home in the night), the parent needs to pay full attention to what they are saying, and what the adolescent is saying and not saying also; notice the emotions on both the sides and regulate their own emotions to have a successful parental interaction.

Compassion for Self and Child

The parent also needs to have compassion for the child by being open and accepting the child for who s/he is and extending love, care and support for the child. This helps the proper development of the child. All parents sometimes feel incapable in parenting and fail to achieve the desired goal in their interaction with the child. Compassion towards self in such situations will prevent self-criticism and a personal sense of failure. Many times parents judge themselves as good or bad parents based on society's standards and values. Self-evaluation when negative, affects parenting to a great extent (Teti & Gelfand, 1991). Hence parents need to accept themselves for whatever their parenting outcome is and instead appreciate their effort at it. Here, compassion for self will enable the parent to avoid self-blame, to be kind towards oneself and continue to engage with the child.

Thus mindful parenting reflects an approach to parenting that has positive influence on the key aspects of the parent-child relationship such as parenting, parental well-being, child management practices, and parent-child affection. The Model of Mindful parenting, parent-child relationships and youth outcomes (Duncan, Coatsworth & Greenberg, 2009) envisages mindful parenting having a dual focus on (a) parents themselves, aiming at their own well-being, and (b) their ways of parenting. These in turn affect positively their relationship with the child as well as the disciplinary and management strategies they use with the child. It leads to a calm, warm, and nurturing tone in the parent-child relationship. Parental interaction with the child is characterized by more positive affect, flexibility, effective coping, reduced stress and improved well-being for both parents and child. The outcome is marked by reduced problem behavior and increased positive behavior and well-being.

Mindful parenting, based on the principles of mindfulness which is derived from the eastern traditions has been found to play a significant role in effective parenting by reducing parenting stress and frustration and improving parent-child relationship quality, thereby increasing happiness. Sondhi (2017) has explored the relevance of mindfulness-based approaches within the Indian culture, specifically with adolescents in India. Various studies have indicated the benefits of mindful parenting. Mindfulness improves physical as well as mental health (Sharma & Singh, 2016). It has various health benefits such

as reducing pain (Song et al., 2014; Bawa et al., 2015), decreasing anxiety and depression (Hoffman et al., 2010), substance abuse (Tang et al., 2015), and various physical illnesses (Aucoin et al., 2014).

Mindfulness reduced parental negative reactions to information and adolescent perception of parental over-control; it positively impacted the affective aspects of relationship and improved the mother-adolescent communication (Lippold, Duncan, Coatsworth, Nix & Greenberg, 2015). Mindful parenting supports children's social decision-making (Wong et al., 2019). Studies also report improvement in emotional well-being of early adolescents with mindfulness (Kang et al., 2018). Further, it has been found to increase parent-child relationship quality, greater relationship satisfaction and less relationship stress (Coatsworth, Duncan, Greenberg & Nix, 2010). Mindfulness has also been applied to facilitate parenting after divorce with an aim to enhance interpersonal and emotional connection in the parent-child relationship (Altmaier & Maloney, 2007). When parents or caregivers practice mindfulness, it is reflected in better performance of their school-age children, more positive relationships, greater flexibility and adaptability, and healthier self-esteem in the children (Placone, 2011; Singh et al., 2007).

The effectiveness of mindful parenting programme has been evidenced in the field of mental health care related to a wide range of child, parent and family variables (Bögels, Helleman, Deursen, Romer & Meulen, 2014). Improvements occurred in the internalizing and externalizing psychopathology symptoms of both parent and child. Studies have been conducted to understand the mechanisms underlying how mindfulness and parenting are associated with child internalizing and externalizing behaviors (Han et al., 2019).

Further, parents benefitted from a practice of mindfulness when managing children with developmental disabilities (Singh et al., 2007). It resulted in lesser parenting stress, increased positive interactions and parental satisfaction. Mindfulness training also reported increased satisfaction of mothers of Attention deficit and hyperactive (ADHD) children in the parent-child interaction and happiness with parenting (Singh et al., 2010). It reduced aggression and increased social behaviors in typically developing children (Singh et al., 2006) and children with developmental disabilities (Singh et al., 2007).

Studies have also found that mindful parenting training was effective in reducing behavioural problems (including disturbed and distractive behavior, aggressive behavior, anxiety and hyperactive behavior) in the pre-school children as well as youth behavioural problems (aggression and substance use) and promoting their effective psychological adjustment (Srivastava et al., 2011; Geurtzen et al., 2015; Parent et al., 2016; Coatsworth et al., 2018).

In another study (Wang et al., 2018), on 168 mother-child dyads, it was reported that mother's mindful parenting decreased adolescent emotional problems through mediation of variables such as adolescent's perceived maternal warmth and adolescent dispositional mindfulness. Infusing mindful parenting activities into existing empirically validated parenting programs can enhance the quality of parent-youth relationships (Coatsworth et al., 2010).

The six dimensions of mindful parenting (listening with full attention, compassion for the child, non-judgemental acceptance of parental functioning, emotional non-reactivity in parenting, emotional awareness of the child, and emotional awareness of self) have been studied with regard to their role in the dynamics of the parent-child relationship (Geurtzen, Scholte, Engels, Tak & Zundert, 2015). The dimension of non-judgemental acceptance of parental functioning was found to be significantly associated with adolescents' internalizing problems. The essential elements of mindfulness, namely being aware of one's moment-to-moment experience with non-judgmental acceptance, have been thought to lower levels of psychological distress by reducing rumination, anxiety, worry, and negative emotions, and increase levels of self-compassion, reflection, and well-being (Lykins & Baer, 2009).

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Thus mindfulness has been found to be effective when applied to the social context of the parent-child relationship. Mindful parenting interventions bring mindful attention directly to parent-child interaction and have an interpersonal rather than intrapsychic focus (Sawyer Cohen & Semple, 2010).

Mechanisms of Mindful Parenting

How does mindful parenting operate? What are the mechanisms underlying the effectiveness of mindful parenting practices? Bogels, Lehtonen & Restifo (2010) discuss six possible mechanisms through which mindful parenting may bring about change in parent-child interactions in the context of child and parent mental health problems. These mechanisms are hypothesized to be mediated by the effects of mindfulness on parental attention by,

1. Reducing parental stress and resulting parental reactivity. Parental stress creates a barrier to engage in effective parenting practices. When parents themselves are under stress, they are limited in extending warmth and support to their children, and become reactive in their dealings with children. They also fail to be compassionate towards self and the children. Mindfulness, by bringing their awareness on the present moment, and shedding the bondage to expectations and beliefs, enables parents to manage their stress and improve their parenting.
2. Reducing parental preoccupation resulting from parental and/or child psychopathology. Parental preoccupation resulting from mental disorders or mental health conditions either in parents or children prevents parents to effectively engage with their children. Their feeling of lack and doubting their capability to handle the child with developmental disorders such as autism etc. coupled with the guilt factor leads them to carrying grudge and regret. Mindful parenting will help them to approach it with an unbiased and non-judgemental way, accepting the self as well the child as it is.
3. Improving parental executive functioning in impulsive parents. There is a focus on improving the parent's executive functioning, freeing it from the sensory-thought-emotions reactivity chain (Bluth & Blanton, 2014). Being mindful helps parents notice their thoughts in the moment which results in less impulsivity and reactivity, thereby enabling the parent for effective interaction with the child.
4. Breaking the cycle of inter-generational transmission of dysfunctional parenting schemas and habits. The dysfunctional parenting patterns and schemas continue from generation to generation in the absence of any formal training in parenting. Mindfulness makes the parents aware about these maladaptive patterns in the parent-child interactions and avoids these.
5. Increasing self-nourishing attention. Mindfulness brings in self-compassion and self-nourishing attention. Being hugely demanding, parenting involves lack of attention and care to one's own self. Neglecting oneself, however, will cost the parent-child interaction negatively. Hence parents need to be mindful of their own self and nourish themselves to provide better and effective parenting to their children.
6. Improving marital functioning and co-parenting. Mindful parenting also leads to effective co-parenting which means that parents support each other and do not negate each other before the child, whether the other parent is present or not before the child. Further, it helps improve marital functioning by reducing conflicts and reactivity between parents.

Thus mindful parenting addresses these six domains to bring in effective parenting and improved parent-child relationships.

FUTURE RESEARCH DIRECTIONS

Given the importance of mindful parenting as evidenced through the research studies cited above and understanding of the mechanism through which it exerts its effect on a variety of aspects related to health, parent-child relationship, behavioural problems, developmental disabilities, psychopathology, etc., it is crucial that mindfulness is built into the parenting attitude and practices. Mindfulness as a concept has informed various psychotherapies resulting in Mindfulness-Based Stress Reduction (MBSR) therapy, Mindfulness-Based Cognitive Therapy (MBCT), and forms a major component in other therapies such as Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT). Intervention studies have also been conducted supporting the significance of the mindfulness components in contributing to effective parenting practices (e.g., Coatsworth et al., 2018; Bogels & Restifo, 2014). Evaluation regarding the effectiveness of mindful parenting intervention programmes across socio-cultural contexts will make these universally applicable.

Mindfulness has emerged as a concept having wider reach and significance in almost all areas ranging from health, education, personal to professional context and workplace. It has a significant impact on parenting also. Here it may be noted that one can focus on two main aspects of mindful parenting while discussing the ways of being mindful in parenting. These are (a) mindful to one's self – self-care, and (b) mindful in relation – relational mindfulness. Further, two main stakeholders in mindful parenting are the parents and the child. Practicing mindfulness helps the parent to be more self-aware, attentive, patient, resilient, accepting, non-judging, responsive, efficient in regulating emotions, empathetic, and taking a proper perspective. When the parents bring all these into the context of the parent-child relationship, it generates understanding and brings in efficiency in parenting. Future studies may examine how dispositional mindfulness in parents contribute to greater well-being of their children.

Mindfulness applied to the self transmits to mindfulness in relation. Thus instead of seeking compliance or trying to exercise control, the parent focuses on the needs of the child at the moment. This is *being mindful of the parent-child relationship itself* rather than taking parenting as a task and *acting in this relationship*. It reflects operating through a 'being mode' than 'doing mode'. As Pearce (2004, p.10) states, "the true nature of children – their complexity and open-ended possibilities – place them well beyond our attempts to predict, manipulate and control. Eventually, every parent and educator discovers this obvious fact, much to their dismay".

Thus, mindful parenting starts with being mindful of oneself first. One needs to be aware of one's own thoughts and emotions first. The simple reason being that these are under one's control rather than trying to change others or situations. There is a need to discipline oneself first before going out to discipline the child. Hence, there is a need to shift from the conventional discipline-oriented, punitive-based, compliance and control approach to parenting to a mindful and transformative approach of parenting. The adult is transformed by the child as much as the child is transformed by the adult (Pearce & Mendizza, 2004, p.ix).

With a focus on being mindful of oneself and the parent-child relationship itself, Jon Kabat-Zinn has mentioned seven attitudes of mindfulness that can be practiced to develop a mindfulness being. These are (1) Non-judging – one needs to develop a non-judging attitude by just observing the flow of thoughts as

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it comes to the mind without attributing any value judgement to it; (2) Patience – it involves accepting the things as they unfold without getting overly agitated, irritated or frightened or depressed; (3) Beginner's mind – Adopting a fresh perspective in everything without having any pre-formed assumptions or biases; (4) Trust – Believing in oneself, developing trust in one's intuition, and accepting feelings. It involves connecting with one's inner self, and letting one's true self/intuition guide rather than always depending on others; (5) Non-striving – it refers to just being oneself rather than striving for or aiming at something. When the individual says s/he want to get better or want to be relaxed, it connotes that they are not okay at present. But eastern traditions put forth that one is already whole and complete. The idea of being something, reaching someplace or where one should be undermine the reality that one already is at present. Hence, one needs to practice mindfulness by paying attention to the present moment awareness; (6) Acceptance – Developing acceptance of persons, things and situation as they are because one cannot control them. When there is denial or resistance of things instead of accepting, it leads to anger, resentment and unhappiness. Acceptance opens up new possibilities in life; and (7) Letting go – Taking the experience as it is and detaching oneself helps focus on the present moment thoughts and feelings. One needs to be aware of the thoughts, feelings and experiences, observe them and then let it go. Research can focus on the interrelationship and dynamics of these attitudes.

Mindfulness can also be developed through enhancing awareness of one's self and emotional self-control and mindful breathing exercises. Self-awareness can be increased through the following: (a) be present - being in the moment, (b) body scan - observing the entire body and noticing any sensation, (c) thought watching - observing and noticing the thoughts coming, (d) knowing one's feelings - noticing and being aware of the feelings and emotions that one feels, and (e) being aware of one's breath -paying attention to one's breathing, both inhalation and exhalation, this will increase the mental faculty of attention and enable one to be more aware. Thus awareness of one's self is enhanced by giving one's full attention and awareness to the present moment experiences and listening mindfully. Parent's mindful listening can have significant implications toward the relationship between the parent and the child (Sondhi, 2017). Each child is unique and consequently provides unique challenges to parenting. Hence one needs to be compassionate not only towards the child but also to the self. Self-care needs to form an integral part of parenting.

Emotional self-control involves the act of responding rather than reacting. Instead of reacting immediately, one needs to take the thoughts and feelings as it is, just thoughts and just feelings, and do not overidentify with them. Thus one needs to practice self-regulation of the emotions. For this, one needs to be aware of one's emotions and then regulate them. Self-regulation also involves accepting one's emotions besides being aware of them. It requires one to be focus on the present.

Future research can focus on the evaluation of each component of mindfulness for the target group and accordingly design interventions. The interventions need to take into account the specific objectives and the context of parenting. Further, studies need to focus on the impact of the varied socio-economic background, behavioural and emotional problems, developmental disorders, mental disorders, disadvantaged background, etc. on mindful parenting. It would also be pertinent to understand the existing parenting styles and practices followed and how they interact with mindfulness practice. Any difference in practice of mindfulness by mother and father and resultant impact on their relationship with the child can also be examined. The family type, marital status and dynamics of marital relation, the home environment also need to be taken into account in any parenting training programme incorporating the mindfulness component.

CONCLUSION

Mindfulness is an approach to life that can be developed and it has far-reaching implications in parenting. Cultivating a mindfulness-based approach to parenting will yield a responsive rather than a reacting mindset, a being rather than doing mindset. Parenting is not just a task or responsibility to be carried out, but it is the awareness of the parent-child relationship and focusing on this relationship that will lead to effective parenting. It is an ongoing process which requires mindfulness to bring in specific intentions and attitudes such as kindness, compassion, generosity and equanimity (Grossman, 2013, 2015). It also involves a greater awareness of thoughts, emotions and responses to stimuli, in contrast to habitual automatic reactions to them (Chambers, Gullone & Allen, 2009), leading to effective parenting.

Studies have pointed out that an activity-based approach, connecting parents in co-creating new parenting paradigms, helped parents listen attentively and communicate more mindfully with their children while supporting them with stress-reducing tools (Wit, Adithy, Chakranarayan, Bunders-Aelen, & Regeer, 2018). Thus as Sondhi (2017) has stated, incorporating a mindfulness-based approach within our parenting styles can be instrumental in reducing the expression of negative affect and altering the nature of responsiveness in the parent-child relationship, thereby lessening conflict and stress in the relationship. Adopting a mindfulness approach equips the parents to understand the nature of this relationship which enhances the well-being of both adolescents as well as parents.

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KEY TERMS AND DEFINITIONS

Automatic Pilot: The state of the mind at a particular moment or duration when the individual is not aware of the thoughts or feelings within her/him.

Emotional Awareness: The ability to know about the feelings and emotions within oneself in the moment and also in the other individual.

Mindful Parenting: Use of mindfulness process and practices in one's parenting approach and parent-child relationship.

Mindfulness: The ability to pay attention to the experience in the moment without attaching any judgement to it.

Mindfulness-Based Interventions: Interventions that use the principles and process of mindfulness, e.g., Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy, etc.

Non-Judgemental Attitude: Having an open and flexible attitude without bringing any beliefs and values to a particular thing, object, situation, individual or idea.

Parenting Approach: The behavior patterns and viewpoints held by a parent regarding parent-child relationship and the parenting practices used by a parent.

Parenting Stress: The stress that arises in the process of child rearing and in the relationship between the parent and child.

Positive Parenting: Parenting behavior and practices employed by the parent to communicate mindfully, being responsive to the child's needs and aiming at the well-being of the child.

Chapter 4

Mindful Eating: A Novel Therapeutic Tool

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ABSTRACT

The chapter is an attempt by authors to highlight the scope of mindful eating as an adjunct therapeutic tool. There is a close link between emotional states and eating, specifically intense emotional states and unhealthy eating practices. Mediating factors such as an individual's perception of food-related cues, changes in cognitive control, and eating as an emotional coping strategy influence the relationship between emotion and eating behavior. Mindful eating can be utilized as an adjunct in therapy by helping clients to practice cognitive control and by breaking the cycle of unhealthy coping strategies like emotional eating. Similar to other mindfulness techniques, mindful eating involves paying attention to the food intentionally, in the moment and without judgment. The chapter covers various approaches to mindfulness eating. Authors have compiled guidelines for therapists on how to introduce mindful eating as an adjunct in therapy settings for clients who have unhealthy eating patterns along with anxiety and depressive symptoms as well as for those suffering from eating disorders.

INTRODUCTION

Mindfulness is an intentional practice of focusing one's attention on the present moment without any judgment. It is a deliberate act that involves regulating one's attention through the observation of thoughts, emotions, and body states (Black et al., 2009). The practice of Mindfulness has its roots in Buddhism. The practice of Mindfulness has recently gained popularity among mental health practitioners. A much secular version of mindfulness is practiced in clinical settings. The trend of using mindfulness in therapy began with the Mindfulness-Based Stress Reduction Program (MBSR). John Kabat-Zinn developed the MBSR Program in 1991. Mindfulness meditation was a major component in the MBSR program

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(Kabat-Zinn, 2013). Practicing mindfulness has helped many individuals live an intentional life and learn skills necessary to manage problems such as chronic pain, sleep disturbances, anxiety, and depression. (Chambers et al., 2009). The general goal of practicing mindfulness is to achieve a state of alertness and focused relaxation. This state is attained by deliberately paying attention to thoughts and sensations without judgement, which helps in focusing the mind on the present moment. There are various techniques used to practice mindfulness. Techniques such as mindful breathing and body scan meditation are some of the most popular methods used in current therapy settings. Along with the techniques mentioned above, some therapists also encourage their clients to be more mindful in their day-to-day activities such as eating, walking, cleaning, etc. (Baer & Krietemeyer, 2006). Even though not very often used, being mindful while carrying out day-to-day activities in life is helpful in reducing the symptoms of disorders such as anxiety and depression (Fuchs et al., 2016).

Mindful eating is one of the less used methods to practice mindfulness. It is a practice in which the individual brings one's focus on the sensations experienced when they are eating as well as their general experience of food. Similar to other mindfulness techniques, mindful eating involves paying attention to the food intentionally, in the moment and without judgment. Here 'paying attention' refers to focusing on the process of eating and at the same time being aware of one's thoughts, feelings, and memories that come up at that moment. It is also important to be aware that the mind is wandering as this awareness is essential to bring back focus (Baer & Krietemeyer, 2006). Albers described the first step of mindful eating as noticing all sensations experienced while eating. This involves all the physical sensations as well as emotions and memories. The second step is to identify habits such as eating mindlessly or eating while multitasking. Being aware of the ways in which one mindlessly eats will help change those habits and practice a more mindful way of eating. The third step is to be aware of what triggers the initiation and stopping of eating. This will help to understand and work on emotional or cognitive triggers that lead to mindless eating (Albers, 2008).

There is a close link between emotional states and eating, specifically intense emotional states and unhealthy eating practices (Kandiah et al., 2006). Uncomfortable emotions such as sadness, anger and fear tend to increase the tendency to eat impulsively, although with a reduced feeling of the pleasantness of food and of satisfaction. On the other hand, pleasant emotions such as joy increases the pleasantness of food and thereby encourages the individual to consume healthier foods (Macht et al., 2002). There are several mediating factors that influence the relationship between emotion and eating behavior in an individual, including the perception of food-related cues, changes in cognitive control and eating as an emotional coping strategy.

Emotions induced by food-related cues affect food choice and eating behavior. Stimuli that are related to appetitive food can induce craving, which is a strong desire to eat. These cravings occur along with various autonomic body responses, which differ from individuals to individuals. Such autonomic responses can lead to binge eating in many individuals. When emotions and food-related cues occur in a contingent manner, emotions become a conditioned stimulus and can elicit the response of eating behavior just like food-related cues (Bongers & Jansen, 2016).

Variations can happen in cognitive control of eating behavior as a result of changes in the intensity of emotions. An increase in the intensity of experience of negative and positive emotions impairs cognitive control, thereby leading to increased food intake. Meals eaten while an individual was experiencing a positive or negative mood were significantly larger in quantity than meals eaten when the individual was in a neutral mood (Patel & Schlundt, 2001). According to Restraint theory, negative emotions disinhibit an individual's cognitive control and thereby lead to increase in food intake (Herman & Polivy, 1984).

Similarly, individuals tend to consume more food and indulge in hedonic eating when experiencing positive emotions such as joy and happiness (Macht, 1999). The pattern of consumption differed across various negative emotional states as well. Higher consumption of food was reported during anger, boredom, depression and fatigue whereas lower food intake was reported during fear, tension and pain (Macht, 1999; Patel & Schlundt, 2001).

Eating is also resorted to as a method for emotional coping. An individual tends to resort to emotional eating while going through negative emotional states in order to regulate the emotion by the act of eating. As a result, it enhances the intake of sweets and high-fat foods. The core assumption of Emotional Eating Theory has been viewed from a learning perspective, in which negative emotions act as eliciting stimuli, eating acts as operant behavior, and its consequence, the eating-induced reduction of negative emotions, acts as negative reinforcement (Booth, 2009). This is a very likely scenario especially in Indian households where eating behavior in childhood, mostly beyond the needs of the child, is positively reinforced and lauded as an achievement. Food thus represents a reward for such individuals, which further supports their positive valence of food, thus influencing the choice of food type and quantity of consumption. This false sense of reward makes them resort to emotional eating to cope with their negative emotions (Furst et al., 1996).

There are several theories that explain emotional eating. Physiological theories propose that positive reinforcement of palatable food is due to its effect on brain serotonin and dopamine levels and reduction in the functioning of Hypothalamic-Adrenal-Pituitary (HPA-) Axis and central Corticotropin-Releasing Factor (CRF). On one hand this behaviour results in short-term benefits in decreased negative emotions, while on the other hand it leads to long-term negative impact on physical health (Gibson & Desmond, 1999). Attachment theories have also tried to explain emotional eating behavior. Bowlby, Ainsworth and Main and Solomon are prominent theorists who have explained the attachment theory. They have described secure and insecure attachment patterns and how individuals with insecure attachment resort to unhealthy coping mechanisms. An individual develops secure attachment from early relationships with adults who are nurturing and are sensitive to signals of distress and responds adequately. Absence or lack of such early relationships lead to insecure attachment patterns. This emanates from a parenting style that is not sensitive to the infant's emotional state. Various behaviours like overeating can take on the function of regulating effect when more adaptive, attachment-based strategies are not available. Attachment theory thus may be particularly helpful in understanding the dynamics of stress and emotional eating (Maunder et al., 2017).

Understanding and utilizing this strong connection between emotional states and eating behavior, the authors looked into the possibility of consciously changing the eating behavior and thereby causing a change in the emotional state. From reviews of various studies as well as experience from clinical practice, the authors would like to explore the potential use of mindful eating practices as a novel therapeutic tool in the current clinical setting as a supportive strategy in regular therapy.

MINDFUL EATING

The concept of mindful eating was always present in various cultures in their regular eating behaviour. However, the concept of mindful eating as a therapeutic practice was introduced by John Kabat-Zinn. In his MBSR program, Kabat-Zinn described a technique called “Raisin Exercise” for practicing mindfulness. “Raisin Exercise” is one of the most popular activities for practicing mindful eating. In

this exercise, the individual is given some raisins and asked to pick just one from it. Then the person is instructed to examine its surface and notice all peculiarities such as the ridges, dull part, and shiny part. The person is encouraged to examine everything slowly as if seeing a strange object for the first time. Here, he tries to help the person to be mindful of the object through the sensation of sight. Later, he moves to the sense of smell. Following this, the person is instructed to feel the weight of the raisin, try to roll the raisin between fingers. After this, the focus is shifted to the sound it makes and its stickiness while being rolled between fingers. Then the person is instructed to place the raisin between the lips, hold it there for a few moments and then roll it into the mouth. Here, Kabat-Zinn specifically instructs not to chew immediately, but to notice if there is any taste before chewing and to feel the changes in the mouth. After experiencing the feel of the raisin inside the mouth, the person is instructed to bite into the raisin just once, observe the taste, and slowly chew until it completely liquefies inside the mouth and then to swallow. After swallowing, one is instructed to take some time to notice the resultant experience of the action (Baer & Krietemeyer, 2006).

This exercise can be done either by reading the guidelines or listening to audio guidelines. The raisin exercise is a good model to understand the process of mindful eating. This exercise encourages one to focus on the moment-by-moment experience of the action. The focus on the sensations of sight, sound, smell, touch, and taste brings about full awareness of the food in the moment. This process does not tell the person what should be experienced; rather it gently suggests to a person to notice his or her own experience. The exercise exemplifies mindfulness meditation by incorporating many of the attitudes that are practiced in each meditation (Baer & Krietemeyer, 2006).

Kabat-Zinn explained the following attitudes associated with mindful eating and living mindfully:

Non-Judging: The first hurdle an individual needs to overcome in this activity is their automatic thoughts of judgement such as whether they like raisins or not etc. To start the process of eating by keeping aside one's previous experience and judgement of food is the primary challenge. Being aware of one's judgments is one of the critical elements of mindfulness.

Patience: The key aspect of practicing mindfulness is patience. Bringing awareness to each moment of the experience takes time. The natural instinct of any person is to throw a handful of raisins into the mouth. However, in this exercise, only one raisin is put in the mouth and it has to be chewed a few times and swallowed only after it completely liquefies. The process of eating here is slowed dramatically for the complete experience, letting the experience unfold rather than racing through it.

Beginner's Mind: While eating mindfully, one is encouraged to experience it just as a baby does - involve all the senses. This allows one to experience them in a new way and to be open to however it unfolds in the here and now.

Trust: Full awareness of one's own experiences and its acceptance as it is leads to self-trust. An individual's experiences are their own; it does not resemble another person's experience. By being aware of and accepting what one feels about different foods and how differently one responds to each, an individual becomes more appreciative of themselves and therefore more trusting.

Non-Striving: An individual as an eater is free to be in the moment and to fully appreciate the experience as no specific outcome is measured. There is no expectation of a particular outcome.

Acceptance: In this exercise, one is encouraged to accept whatever the experience is. It can be the amazing taste of just one raisin or their dislike for raisins that are placed between the lips. The willingness to develop acceptance enhances mindfulness.

Letting Go: Letting go of whatever the individual has become attached to allows them new experiences in the immediate present without judgment based on experiences. For example, letting go of past expectations such as the resentments about being made to eat raisins as a child (Nelson, 2017).

These attitudes are closely connected and are important in the practice of mindfulness. They form the basic foundation of mindful eating. Eating mindfully is about bringing full awareness to each plate or bite of food. It starts with the first thought about food and lasts until the final bite is swallowed and the result of the entire event is experienced (Nelson, 2017).

Another proponent of mindful eating is Thich Nhat Hanh. He is a Vietnamese Buddhist Monk who emphasized on mindful eating in everyday life in his books *Savor: Mindful Eating, Mindful Life* (Hanh & Cheung, 2010). He takes a more spiritual angle to mindful eating. He advises looking deeply into the food one eats. According to him, the everyday eating experience can be made into a mindfulness exercise through the seven practices of a mindful eater:

1. Honor the food: Have positive contemplation about the food we are about to eat.
2. Engage all the senses: Focus on all sensations touch, smell, sight, taste, and sound.
3. Serve in modest portions: Serve small portions on a small plate and only have one helping.
4. Savor small bites and chew thoroughly: Chewing slowly helps slow down and experience the meal fully.
5. Eat slowly to avoid overeating: It helps identify when one is full and prevents overeating.
6. Avoid skipping meals as it will lead to hunger pangs, which will make it difficult to practice mindful choices about food.
7. Eat plant-based foods.

He also explains mindless traps that one should be careful about. They are speed eating, overeating large portions, emotional eating, etc. He also describes various ways in which one can prevent falling into these mindless traps. Taking small bites and chewing thoroughly help in slowing down eating. Using smaller plates and avoiding distractions will help in preventing overeating. Relying on mindfulness techniques to differentiate physical hunger and emotional hunger, practicing better-coping strategies and if required consulting a professional will help to overcome emotional eating (Hanh & Cheung, 2010).

Intuitive eating is another practice that is very similar to mindful eating. Evelyn Tribole and Elyse Resch developed this approach in 1995. This approach is a non-diet approach to being healthy. It helps an individual tune into the signals from one's own body and thereby develop a healthier relationship with food. All are born as natural intuitive eaters. Children innately balance out their food intake, eating when they are hungry, and stopping once they feel full. Some days they may eat a lot of food, and other days they may not eat anything. But as children grow older they are bound by several rules and restrictions that are set around food. Due to this, individuals lose their inner intuitive eater. They learn to finish everything on the plate rather than to eat according to one's needs. Intuitive eating is about bringing back the focus to one's internal cues (intuition) like hunger, fullness, and satisfaction, and moving away from external cues like food rules and restrictions. Intuitive eaters give themselves unconditional permission to eat whatever they want without feeling guilty. They rely on their internal hunger and satiety signals and trust their body to tell them when, what and how much to eat (Tribole & Resch, 1995).

As proposed by Tribole and Resch (2017), Intuitive Eating can be practiced by following ten core principles as given below:

1. Rejecting the Diet Mentality: The diet mentality is designed to fail, as restrictions trigger craving.
2. Honoring one's Hunger: Hunger is a normal, biological process. If one tries to suppress one's feeling of hunger and not eat adequately, the body reacts with cravings and binges.
3. Making Peace with Food: Restricting oneself from having a certain food, will eventually make one feel deprived. It is highly likely that this deprivation will lead to uncontrollable cravings and eventual overeating.
4. Challenging the Food Police. The thoughts that declare an individual as "good" for eating certain kinds of food that is generally portrayed as healthy such as salads and "bad" for eating food that is generally considered unhealthy such as sweets and fast food are referred to as the "Food Police". It's important to keep such thoughts in check.
5. Listen to Body Signals of Fullness and Satiety: Pay attention to signals that indicate fullness and satiety. Pause midway through a snack or a meal and check with the body. This can bring more consciousness and awareness of the meals.
6. Discovering the Satisfaction Factor: It is possible to be physically full but not satisfied. When an individual eats what they really want to eat, the satisfaction and pleasure they experience will help them to be content (and very often with a smaller amount of food).
7. Coping with Emotions without Using Food: Using eating as a way to avoid experience of emotions is a commonly seen coping strategy. Learning relevant adaptive coping skills is an important part of intuitive eating.
8. Respecting One's Body. Learning to respect one's body for how it is at this moment is an important tenet of intuitive eating.
9. Exercise and Feel the Difference: Intuitive eating encourages individuals to focus on and practice the type of movements that feels good to them rather than focusing on exercise one "should" be doing.
10. Honoring one's Health with Gentle Nutrition. Along with some principles of mindful eating, Intuitive Eating also emphasizes the importance of rejecting the diet mentality and encourages one to focus on respecting one's body more (regardless of physical features). It also emphasizes coping with emotional eating, gentle movement and nutrition, and remaining non-judgemental. Both mindful eating and intuitive eating can be useful tools to help in overcoming mindless, unhealthy eating practices (Tribble & Resch, 1995).

Research done until now has mainly focused on the effects of mindful eating practices in lifestyle disorders such as obesity and diabetes. It is often considered as an alternative for dieting. Unlike dieting, mindful eating is a process-oriented approach and advocates changes in the way one eats and not the amount of food. Many studies have explored the influence of mindfulness-based therapies and negative emotions in clinical conditions such as depression and anxiety (Hofmann et al., 2010). However, no studies specific to mindful eating practice and its effect on anxiety and depression were available in published literature.

Given the current scenario, the authors would like to look into the possibility of using mindful eating practices as a therapeutic tool in helping clients suffering from various mental health disorders. There is no current research available regarding the efficacy of this method, but could very well be taken up by upcoming researchers. The authors have put together some guidelines and suggestions for therapists to incorporate mindful eating as a therapeutic tool in clinical settings, compiling various eating principles

put forth by Kabat-Zinn, Thich Nhat Hahn, Evelyn Tribole, and Elyse Resch. Some practical suggestions were also included from the clinical experience of the authors.

HOW CAN YOU INTRODUCE THE CONCEPT OF MINDFUL EATING IN THERAPEUTIC SETTING?

The concept of mindfulness can be introduced to a client as a way in which an individual can focus in the present moment by being fully aware and non-judgmental. Explain about various methods through which mindfulness is practiced as well as its benefits. It is advisable to start by practicing mindful breathing if they are unfamiliar with the concept of mindfulness. Once the individual is comfortable with the concept of mindfulness, the raisin exercise can be introduced to practice mindfulness while eating. The raisin exercise can be done initially by the client with the therapist guiding or the client listening to audio guidance in the presence of the therapist. After each practice session, clients should be allowed to explain how they felt, elaborating on the physical sensations, thoughts as well as emotions. The same activity can be given as a home task and their experience can be written and later shared with the therapist. This will help the individual pay more attention and observe the sensations, thoughts, and emotions that they experience. The same exercise can be done with any other edible food, but it would be better to use something small and preferably just one so that it is easier to completely focus on it.

How Can You Mindfully Eat a Daily Meal?

Mindfully eating a daily meal can also be suggested to a client along with the raisin exercise, or as a next step or on its own from the beginning. The therapist can recommend the client to mindfully eat at least one meal a day. Mindful eating involves:

- *Eat without distraction:* Keep away the phone, laptop and books and avoid watching television. Stay away from any kind of distraction that takes away an individual's attention from food. Instruct the client to sit at the dining table or a designated area for having food, away from the distractions mentioned above.
- *Having meals on time:* Skipping meals will increase the craving for food, which may eventually result in mindless overeating. Hence, instruct the clients to have meals on time.
- *Serving small portions:* Serving large portions, again, may lead to overeating. Hence, it is better to serve small portions and slowly eat and be aware of bodily satiety cues.
- *Involving all senses:* By being away from distractions, one will be able to completely focus on food using all the senses and being aware of all the sensations the food is creating, which will help an individual to be completely in the present. This will include noticing the color, smell, taste and texture, as well as the sound of chewing.
- *Eating slowly:* Consciously slowing down eating will help an individual's brain and body to communicate efficiently and to understand when one is full. The awareness about bodily satiety cues comes much later (Ferriday et al., 2015). Hence, if a person eats very fast, there are higher chances of overeating as they only realize that they are full much later when they start to have physical discomforts. Increasing the number of chews results in the consumption of a smaller portion (Fontana et al., 2015). Instruct the client to take small bites and chew thoroughly while practicing

mindful eating. One effective way to do this is to notice how many times one chews one bite of food on an average and later increase the number of chews.

- *Engage in the process of making food:* If it is practically possible, instruct the clients to make a dish or help with the process of cooking such as cutting vegetables or arranging required ingredients, or at least washing dishes later. Engaging in activities that are associated with mealtime make the individual more involved with the meal and eventually help become more mindful.

Introducing Mindful Eating to Overcome Unhealthy Eating Patterns

Mindful eating to tackle unhealthy eating behaviors targets several aspects such as identifying food-related cues, enhancing cognitive control and overcoming emotional eating.

Identifying Food-Related Cues

Being aware of food-related cues plays an important role in overcoming unhealthy eating triggered by these cues. Food cues include viewing or smelling of food stimuli, advertisements, or any cues or situations associated with food-related memories. These cues serve as conditioned stimuli that elicit food-related responses and subsequent food intake (Martin-Soelch et al., 2007). These cues accompany psychological (e.g., craving, urge) and physiological changes (salivation, hormone secretion), along with brain reactivity (Yokum et al., 2011) that promote subsequent feeding behaviors (Jansen, 1998). These food cue-induced changes mobilize the appetitive system and increase motivation toward food consumption. As a result, highly palatable food cues often facilitate food-seeking even in a state of satiety and is regarded as an important risk factor for obesity (Boswell & Kober, 2016).

Making the client understand how food-related cues induce craving is the first step in overcoming it. Firstly, the individual needs to identify which are the cues that trigger craving in them. It can be advertisements, smell of food, sight of food, break time or company of certain people, among other things. Once they are able to identify the triggers, they can prepare themselves to be more mindful during situations where such triggers may be present. Using mindful eating techniques described above, the individual can slowly learn to regulate the amount of intake.

Cognitive Control while Experiencing Intense Emotions

As described earlier in this chapter, experiencing intense emotions, such as anger and joy, can impair cognitive control, leading to dysregulated eating patterns. While negative emotions such as anger and stress lead to impulsive eating, pleasurable emotions such as joy leads to hedonistic eating. It is important to identify what type of emotion creates dysregulation in cognitive control in clients while eating. Once the therapist is able to help the client identify the pattern, the mindful eating strategies described above can be used in such situations. Initially, the client may be able to identify the behavior once it has happened. But with practice, the client will be able to become aware of it while experiencing intense emotions as well.

Overcoming Emotional Eating

Another important aspect is to make the client understand emotional eating. As discussed earlier, there is a strong connection between negative emotional states and unhealthy eating. When an individual is feeling low or anxious, they may resort to food as a distraction or for self-soothing. For some, this mindless eating later may turn into an additional problem resulting in overweight and other physical and physiological discomforts associated with it (Stifter & Moding, 2015). Hence, when an individual feels like having food, it is important to understand whether it is due to actual physical hunger or it has been triggered by negative emotional states. The therapist can help clients understand the difference by giving the following guidelines.

- Before reaching for food automatically, encourage the clients to think if they are truly hungry or if they are stressed, unhappy, or worried.
- Think about how much time has passed after the last meal and what was eaten.
- Identify situations or triggers where the individual feels the craving to resort to comfort food.
- Think about the ingredients in the food and the process it has undergone before it reached your plate. Think about how nutritious it is.
- If one is unable to stop oneself from eating unnecessarily, try to follow mindful eating strategies such as eating very slowly, chewing more times, and engaging all senses. This will help to be more aware of bodily satiety cues and thus reduce cravings and the urge to eat mindlessly.
- Once the triggers for unhealthy eating are identified, the therapist can discuss various adaptive coping strategies the client can use.

MINDFUL EATING AS A NOVEL THERAPEUTIC TOOL

Mindful eating as an adjacent therapeutic strategy is likely to help in the following ways.

- *Being in the present moment:* Most individuals with clinical conditions such as anxiety have trouble focusing on the present moment. They are either preoccupied with thoughts about past mistakes or how things should have been or worried about how the future would be. In this scenario, mindful eating like any other mindfulness meditation works as a grounding technique that helps an individual bring back his/her awareness to the present.
- *Non-judgmental:* Mindful eating like any other mindfulness technique encourages individuals to observe the experience without any judgement. Practicing non-judgment is a very basic activity that helps in other life situations.
- *Self-awareness:* Practicing mindful eating also makes an individual more likely to be aware of the present, especially through using all the senses to be aware.
- *Self-acceptance:* Like any other mindfulness technique, mindful eating also enhances the acceptance of both self and others. When an individual accepts them and others for what they are, it promotes well-being and good interpersonal relationships.
- *Compassion towards oneself and others:* Acceptance also enhances compassion towards oneself as well as others.

- *Processing emotions:* Mindful eating also helps an individual to take it slow and give them time to process thoughts and emotions, which will in turn result in healthier responses.
- *Cognitive flexibility:* Mindful eating practice helps an individual exercise control over unnecessarily following a thought, rather than just observing and letting go.
- *Self-control:* Mindful eating practices help an individual gain control over a basic activity like eating. This also enhances their general sense of control of self.
- *Easy to implement:* As a therapist, it is easy to instruct a client to eat mindfully, as they do not require additional resources, nor would they need to set aside any time for it. Mindful eating can be easily practiced every day during any of the meals. The effect it has on oneself and on the approach to food and experience of food can be easily observed by an individual.
- *Practical:* It can be done anywhere without attracting attention. It can be done by a person anywhere when he is having a meal or snack.

Because of the benefits mentioned above, the authors would like to highlight the potential of this technique as an adjunct in psychotherapy for various clinical conditions where the core problem is related to emotional regulation and cognitive flexibility. It can be used as a supporting technique in the therapy of people with disorders such as anxiety and depression. As it also focuses on the process of eating, it can also be utilized in the treatment of individuals with eating disorders. Another important group of clients who may benefit from the mindful eating strategy is individuals with a borderline personality disorder. Mindful eating has the potential to help individuals with borderline personality disorder to develop more self-awareness as well as more compassion towards themselves, regulate emotions, and thereby gain a sense of self-control. Mindful eating may be used as an initial strategy before starting intense interventions, as this method is very non-threatening and is easier to implement in a practical sense.

SCOPE FOR FUTURE RESEARCH

The current chapter includes suggestions and guidelines by the authors based on a review of literature and experience from clinical practice. More systematic studies and controlled trials are required in the specific area of the therapeutic effect of mindful eating practices in clinical conditions like anxiety and depression.

CONCLUSION

Mindfulness is a practice that has recently gained popularity among mental health practitioners. Mindful eating is a practice in which the individual focuses on the sensual awareness of food and their experience of food. Similar to other mindfulness techniques, mindful eating involves paying attention to the food on purpose, moment by moment, and without judgement. Research done until now has mainly focused on the effects of mindful eating practices in lifestyle disorders such as obesity and diabetes. It is often considered as an alternative for dieting. Unlike dieting, mindful eating is a process-oriented approach and advocates changes in the way one eats and not the amount of food. As this is a much-under explored area of study, the efficacy of the same has to be evaluated by future research.

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KEY TERMS AND DEFINITIONS

Binge Eating: It involves frequently consuming large amounts of food very quickly. Learn to distinguish between binge eating and overeating.

Craving: The desire for more of a substance or activity (for example, drug of abuse, sex, eating) consisting of a desire to experience the euphoric (or other) effects, as well as the desire to avoid the withdrawal aspects of abstinence.

Emotional Eating: Emotional eating is the practice of consuming large quantities of food usually “comfort” or junk foods in response to feelings instead of hunger.

Mindfulness: A mental state achieved by focusing one’s awareness on the present moment, while calmly acknowledging and accepting one’s feelings, thoughts, and bodily sensations, used as a therapeutic technique.

Mindfulness Meditation: A form of meditation or induced relaxation that focuses awareness on breathing and encourages positive attitudes to achieve a healthy, balanced mental state. It is advocated for reducing reactions to stress by inducing the relaxation response, lowering the heart rate, reducing anxiety, and encouraging positive thought patterns and attitudes. Practitioners of mindfulness meditation aim to cultivate self-awareness, and a non-judgmental, loving, kind, and compassionate feeling toward themselves and others.

Mindfulness-Based Stress Reduction Program: It is a healing approach that combines meditation and yoga. Developed by Dr. Jon Kabat-Zinn in the 1970s, it aims to address the unconscious thoughts, feelings, and behaviors thought to increase stress and undermine your health.

Restraint Theory: Restraint theory is a cognitive explanation for obesity proposed by Herman and Mack (1975). Restraint theory suggests that restraint (or trying not to eat) actually leads to overeating.

Chapter 5

Mindfulness–Based Acceptance and Commitment Therapy: A Practitioners View

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ABSTRACT

Acceptance and Commitment Therapy (ACT) is one of the latest mindfulness-based behavior therapies shown to have compelling evidence and efficacy with a wide range of clinical conditions. ACT is so hard to categorize that it is often described as an amalgamation of existential, humanistic, cognitive-behavioural therapy. ACT is often referred as process-based CBT and is one of the ‘third-wave’ of behavioural therapies. It is currently the fastest growing evidence-based therapy in the world, with currently at least 304 Randomized Control Trials (RCTs) being recorded all over the world. It has proven effective in different cultural contexts with a diverse set of clinical conditions, from depression, Obsessive-compulsive disorder, chronic pain, grief, loss and terminal illness, anxiety, and workplace stress.

INTRODUCTION

Acceptance and Commitment Therapy (ACT) is one of the latest mindfulness-based behavior therapies shown to have compelling evidence for a wide range of clinical conditions. As all behavioral therapies, in ACT as well, there is a major emphasis on taking action, and hence, the standard way of pronouncing ACT is to say the word “act” as a whole, and not as the initials A-C-T (Harris, 2009).

The last twenty years has been a steady rise for third wave behavioral therapies with a lot of prominence on acceptance and mindfulness strategies. In ACT, through the usage of mindfulness-based experiential exercises, people begin to get in touch and make contact with their internal events: thoughts, feelings, memories, and body sensations, and learn to take action guided by their values. There has also been special focus on process-based approach as the core modality, and hence ACT, being a part of this third-wave is commonly referred to as process-based CBT (Hayes & Hofmann, 2018).

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PRIMER ON THE THREE WAVES OF BEHAVIOURAL THERAPY

First Wave

The first wave came about during the 1960s with the popularity of B.F. Skinner's operant conditioning, and other behaviorists like Ivan Pavlov's classical conditioning. This era is marked with principles that were investigated through work with animals and then taken on to be tested successfully with human beings. Cutting-edge methodologies were developed to treat clients with phobia such as systematic desensitization and even till today it is safe to assume that these have a stronghold as being evidence-based approaches. This era of behavioral psychology paved the way for preciseness and deep accurate work.

The first wave died soon because there was less emphasis placed on human cognition, thoughts, and feelings (Harris, 2009). In fact, in 1957, Skinner wrote a book 'Verbal Behavior' in which he laid the foundation for development of language in human beings. Interestingly, Steven Hayes, the originator of ACT, further developed this concept, because although Hayes was captivated by this book and its ideas, he also found a lot of limitations.

Second Wave

The cornerstone of second wave was about including human cognition as a vital strategy for behavioral change (Harris, 2009). This 1970s era also saw the rise of famous cognitive therapists like Aaron Beck and Albert Ellis. Cognitive Behavior Therapy (CBT) had many evidence-based successful outcomes. However, focus on cognition seemed to have its own limitations.

A famous CBT study, where children stayed in the dark longer when they watched a video that trained to help them self-talk in a more positive light such as "I am a brave boy and I can stay in the dark!" was debunked when Steven Hayes and his team tested it out with an additional social context added in. Incidentally, when the children knew that the experimenter had access to watching them, they stayed longer, but when they were hoodwinked into thinking that the experimenter was not watching them, they did not stay longer. So, although CBT placed a lot of emphasis on the content of thoughts, this testing proved that the social context also was important (Hayes, 2019).

In the next discussion of third wave, there is a fundamental shift from content to context. It turns out now, in the 2020 era, CBT does not in fact work because of its cognitive disputation strategies, but because of its behavioral component (Hayes, 2019).

Third Wave

The fundamental transformation from second wave to third wave is to look at cognition not through content, but through *how you relate* to the content. So, it is about stepping back, noticing the function of thoughts and feelings, rather than what the thought in itself is about. A famous cognitive defusion strategy from ACT is, adding a label of "I notice I am having the thought..." (Harris, 2009). Accordingly, if clients are presenting with "I am a loser", they are encouraged to say, "I notice I am having the thought that I am a loser".

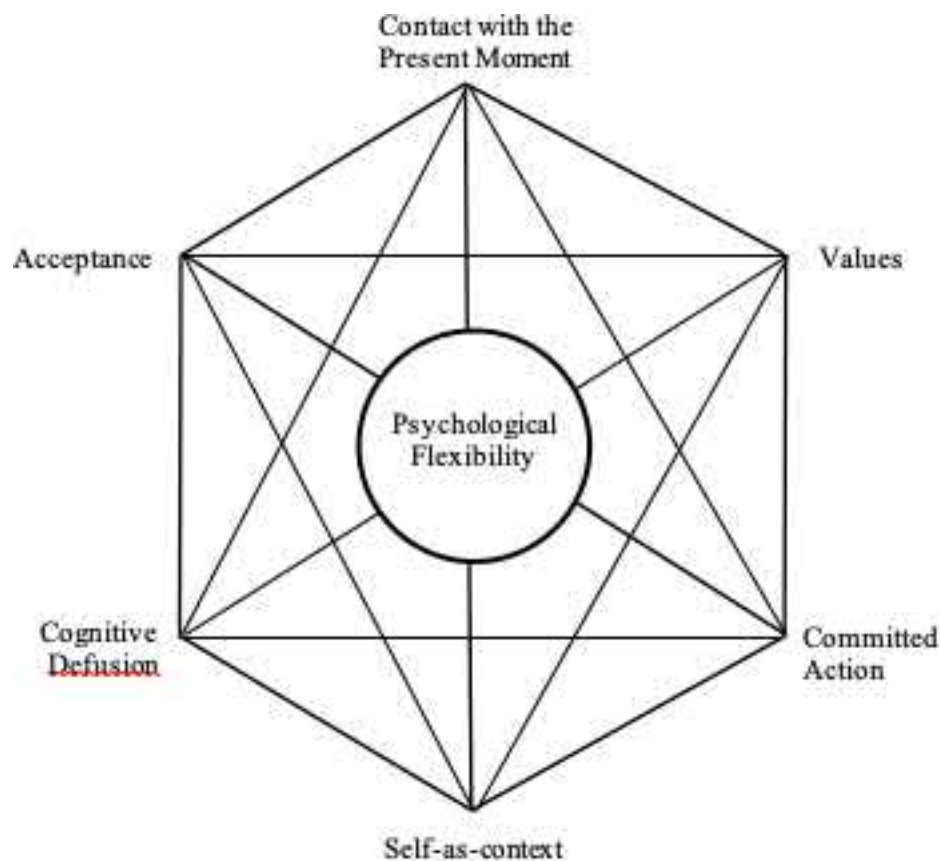
The envisioning of anxiety during second wave was based on one basic piece of information – that anxiety is toxic and getting rid of it was the sole goal. Control strategies such as practicing relaxation, positive self-talk, taking tranquilizers, safety measures like having a friend around, and taking your

mind off of the worry through listening to music are commonly seen therapeutic interventions during the second wave (Hayes, 2019). But none of these seem to help in the long-term. On the contrary, ACT instead of focusing on controlling anxiety, it places significance on stepping back and opening up to what we are experiencing as a key strategy. This links to the aspect that anxiety in itself is not damaging, but how you relate to anxiety is the focus in clinical work.

THE SIX CORE THERAPEUTIC ACT PROCESSES

The six core therapeutic processes in ACT are defusion, acceptance, contacting the present moment, self-as-context, values, and committed action. These six processes are represented as an interconnected 'hexaflex', as seen in the Figure 1.

Figure 1. Psychological flexibility, copyright Steven C. Hayes, used with permission



Below is a brief description of the six core processes.

Cognitive Defusion

Cognitive defusion, also referred as defusion means learning to separate from our cognitions: thoughts, images, memories. Purpose of defusion is to catch self-defeating thoughts that tend to dominate our behavior, and reduce their dominance. A metaphorical equivalence is something like standing on the footpath and noticing the traffic pass by without getting caught up in the chaos.

Acceptance

Acceptance means emotions are explored with curiosity, and felt more openly without defence. Purpose of acceptance is to sit with our painful feelings, open up and make space for inner feelings, body sensations, and urges (Harris 2009). A metaphorical equivalence is something like willingly allowing oneself to have the thorn, in order to have the rose.

Contacting the Present Moment

Contacting the present moment is about intentionally bringing your attention to the *here and now* aspect of the present moment (Harris, 2009). Purpose of contacting the present moment process is to train your ability to be aware of the internal experiences while also simultaneously engaging in a task related to the outer world. A metaphorical equivalence is something like a child running away from eating food, but you keep bringing the child back to feed food.

Self-as-Context

Self-as-context means to connect with our transcendent self, or the observing self. The purpose of self-as-context is to make contact with a sense of self, through which we can observe our ever-changing internal experiences. A metaphorical equivalence is something like, noticing that a chessboard has ever-changing red and white pieces on it, that go back and forth as the game progresses, but self-as-context is about noticing that there is a part to us that is akin to the chessboard.

Values

Values are qualities that we bring in to or behavior. The purpose of the values process is to help clients connect with what is important to them, what matters to them deep in their heart, so that they can use their values as a guide to create meaning and purpose in their lives. A metaphorical equivalence is something like if you want to climb a mountain, what are some qualities you want to embody while on this journey? Self-compassion, courage, bravery, perseverance? These are termed as values that you will use to guide your actions while you start climbing.

Committed Action

Committed action means taking useful action, driven by your values towards your goals. The purpose of committed action is to go ahead and take action with our hands, feet, arms, legs and mouth, by aligning

your behavior with your values. A metaphorical equivalence is something like noticing that the mountain climbing is getting tough, and yet you move ahead and do what it takes, using perseverance as the value.

It is noteworthy to mention that the six processes of ACT are not distinct from each other. As Figure 1 shows, all the six processes come together with *psychological flexibility* in the middle. As a therapist, the goal of using ACT is to apply all the six processes fluidly, so as to achieve psychological flexibility in your clients. Psychological flexibility is defined as the ability to stay present, open up to our difficult feelings, unhook from our difficult thoughts, and take values-guided action towards the kind of life that you want to build. To simplify this further, Russ Harris (2009) mentions psychological flexibility as the ability to “be present, open up, and do what matters”.

Relational Frame Theory

Speaking to the specifics of technical details, ACT is built on the theoretical underpinning of Relational Frame Theory (RFT). As mentioned before, B.F. Skinner’s behavioral account on language called verbal behavior was developed further by Steven Hayes to create RFT. This neo-Skinnerian account of human language and cognition, has immense empirical data to support the comprehensive understanding of acceptance and commitment therapy (Dymond & Roche, 2013). RFT is further based on the philosophy of functional contextualism. The way we learn language gives an understanding of *how and why* our thoughts are so powerful and persuasive (Hayes, 2019). In addition to direct methods of learning through classical conditioning and operant conditioning, we also have *indirect learning* happening through relational frames. According to RFT, we human beings have the ability to derive relations among events in arbitrary ways. For example, two random words such as pencil and lamb when presented to a human being, using our language abilities we can derive multiple relations between them, such as using the pencil to draw the lamb, or imagining the lamb eating the pencil.

A clinical example of RFT is for instance in Obsessive-Compulsive Disorder (OCD) sufferers, where in the context of thoughts functioning as rules, there are numerous relational networks formed between unrelated events. For example, if a religious OCD sufferer believes in a rule-governed thought such as, “If I don’t pray hundred times, when I hear someone talks disrespectfully about god, then something bad will happen to my family.” Let’s say a friend of this OCD sufferer mentions something along the lines of “my YouTube channel is named ohgod”, then YouTube gets added to the relational network and more rituals are going to happen when watching videos on YouTube. And then let’s say that the OCD sufferer hears his brother say the word *holy shit*, the relational network starts to relate *holy* to *god*, and the OCD sufferer will pray more for the forgiveness of his brother *committing a sin*.

Language has its own advantages, but it also has drawbacks. RFT gives us a lot of important explanation on the compelling nature of human thought to be so real (Hayes, 2019). It is termed as blessing, since we use language to build resourceful inventions, and use it to problems solve. At the same time, language is also a curse, since we can at any moment dwell on a painful memory or get tangled up with negative self- judgments.

Living a full life entails going through a full range of emotions: fear, disgust, frustration, hardship, boredom, joy, love, curiosity, guilt, shame, pain, and shock. The objective of ACT, is to help people build meaningful, fulfilling lives, while they are learning to respond effectively to inner obstacles, by developing mindfulness skills (Harris, 2009).

What is Mindfulness?

Mindfulness has many definitions all over the world, since it is an age-old concept found in eastern religions such as Buddhism, Taoism, and Hinduism. Russ Harris (2009) defines the core of mindfulness as “paying attention with flexibility, openness, and curiosity”. In other words, it’s hitting the pause button and opening up to the present moment.

Mindfulness in ACT, involves three parts:

- Paying attention with flexibility: This means that mindfulness is an experiential, attentional process. We can have thoughts about mindfulness, but we can only know what mindfulness is when we experience placing our attention on a task we are doing, or broadening our attention to our surroundings.
- Paying attention with openness and curiosity: This means that mindfulness requires us to turn to our internal experiences or external surroundings, with openness and childlike curiosity.

In ACT, mindfulness is done both from a formal way (such as, when the therapist says, “let’s do a mindfulness exercise now”), and an informal way (such as, when the therapist says, “do you notice your posture”, “do your notice what your mind just said”)

The Six Core Pathological Processes

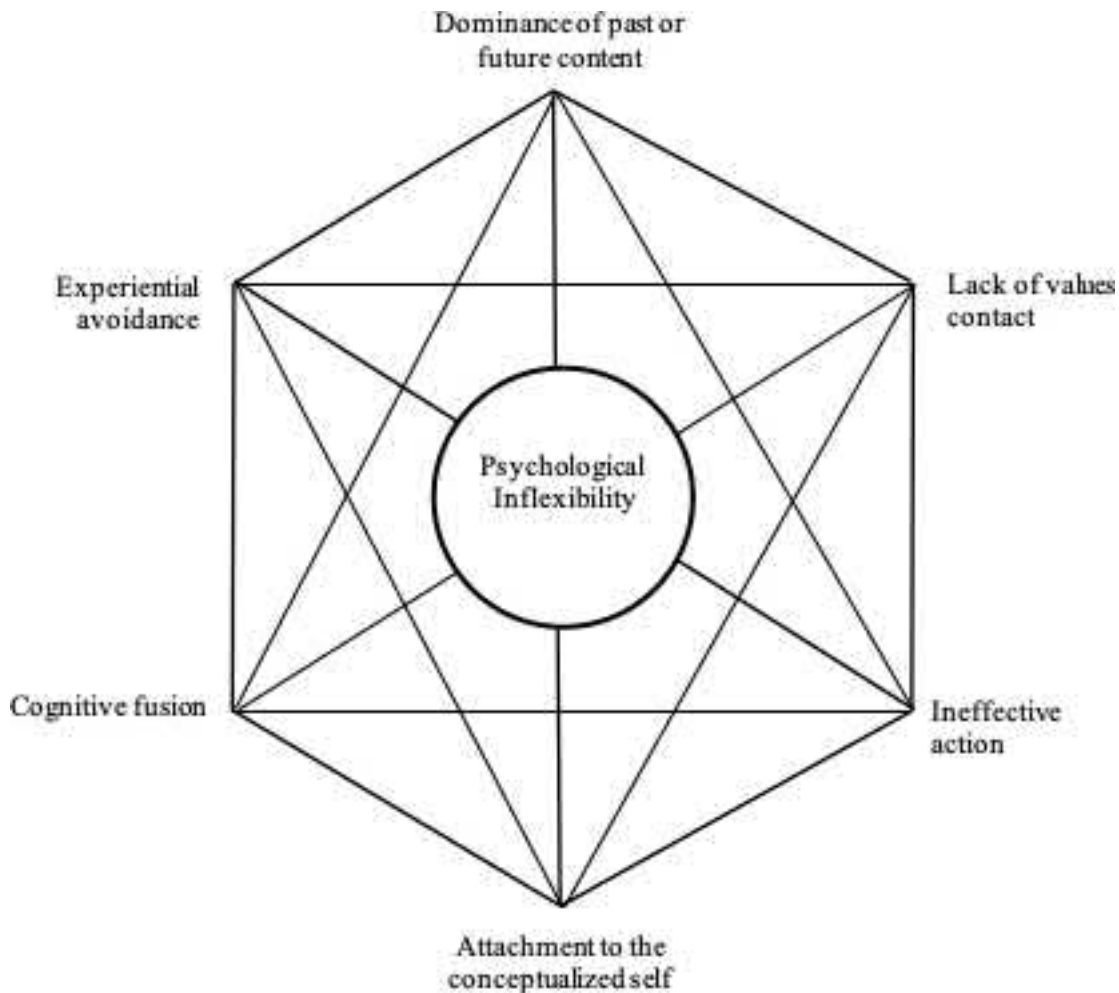
Psychopathology, from an ACT perspective is psychological inflexibility, as seen in Figure 2. As evidenced by RFT, human language and cognition has the ability to make human beings relate to their internal events with rigidity.

The six core pathological processes in ACT are cognitive fusion, experiential avoidance, dominance of past or future content, attachment to the conceptualized self, lack of values contact, and ineffective action. Countermeasures for these psychopathological processes are psychological flexibility process. As seen in the previous section, each of these processes is written down here with their countermeasures in Table 1.

Table 1. Psychopathology and psychological flexibility for each ACT process

Psychopathology	Psychological Flexibility
Cognitive Fusion	Cognitive Defusion
Experiential Avoidance	Acceptance
Dominance of past or future content	Contact with Present Moment
Attachment to the conceptualized self	Self-as-context
Lack of values contact	Values
Ineffective action	Committed Action
<i>Note.</i> Adapted from ACT Made Simple, by Russ Harris, 2009, California: New Harbinger Publications.	

Figure 2. Psychological inflexibility, copyright Steven C. Hayes, used with permission



Cognitive Fusion

Fusion on the whole means it is joined. When things fuse with each other, they intermingle. Cognitive fusion thereby suggests that we get fused or hooked by our thoughts. There is no distance or sense of separation between people and their thoughts when they are fused with their thoughts. And it is not just thoughts; it is any kind of cognition – images, memories, verbal statements, voices in people’s heads, and beliefs. Generally, the phrase getting *lost in thoughts* can mean that the person is caught up in their thoughts or hooked by their thoughts or fused with their thoughts.

In ACT, referring to *our mind* generating thoughts, is metaphorical. As discussed before in the RFT section, *mind generating thoughts*, is a metaphorical way of describing human language and cognition. It is important to note that human beings relate to the world based on two different kinds of experiences.

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1. The five senses part of experience: hearing, smell, taste, and touch. For example, reading this chapter indicates using sight to notice the shapes of letters, the smell of the sheet of paper, the feel of the book through our hands.
2. The mental part of experience: For example, inside of our heads, we can be figuring out concepts of fusion and defusion and planning on how to use this in therapy work.

Fusion makes us get absorbed in what our minds are saying, so much so that people lose their ability to connect with their direct experience. For example, a mother caught up in her worries about her mother-in-law's interference can lose being present with her child while playing with her child. In the context of fusion, thoughts can dominate over people's behavior so much that it can be hard to find fulfillment from life, because our behavior is narrowed in the context of fusion. In the above example, the kind of mother the woman wants to be is someone who is available, fun, playful, and present with her child. She is unable to be this person, and instead can be very withdrawn and demotivated while being with her child, since worries have shown up in her mind, and she is fused with the worries.

Changing the Context from Fusion to Defusion

Defusion as an antidote to fusion uses mindfulness to help a human being to stand back and notice thoughts for their true nature: that thoughts are strings of words, or changing pictures.

1. Vignette of a Client-Therapist Interaction

Client: I felt so useless at work today.

Therapist: Sounds like your mind is really beating you up today. That must be painful to have the thought that you are useless.

The therapist is providing empathy for the client's negative thought.

Client: Yes, I feel so sad and depressed just by thinking how useless I was at work this week.

Therapist: I was wondering if you were willing to try something out with me? An exercise?

The therapist is asking for permission before starting an experiential exercise.

Client: Yeah. Okay.

Therapist: Before we start, I was wondering, could you tell me, how dominated you feel by this thought right now? On a scale of 0-100, if 100 is, this thought is dominating me a lot, and 0 is, I am not dominated by these thoughts, it's just a bunch of words popping up.

Instead of debating with the client's negative thought, the therapist is asking for how much impact the thought is having over the client.

Client: Like, a lot. Like maybe, 80/100.

Therapist: That sounds tough. Can we imagine this sentence "I am useless", on a computer screen? And then look at it with lots of gaps in between the letters? Like I am useless.

The therapist has started a classic cognitive defusion exercise.

Client: Yeah.

Therapist: And now can we imagine this sentence to having a different font? One of those kiddish fonts?

The therapist is continuing the exercise.

Therapist: What is happening as we are doing this? Do you notice any difference?

The therapist is asking the client to notice what is happening to the impact of the thought as the exercise is proceeding.

Client: It looks a little silly. I think it is not dominating me so much.

Therapist: What is the rating like now?

The therapist is utilizing ratings as a strategy to assess the reduction of impact of the thought.

Client: Like about 40.

Therapist: Okay. So, you notice a sense of separation or a sense of unhooking from this thought?

The therapist is emphasizing on separating oneself from the grip of thoughts.

Client: Yes, I am not hooked by it so much.

Therapist: You know what we are doing now, is to see these words in a different way. We are seeing thoughts for its true nature. That they are set of letters stringed together. Thoughts dominate us easily. When we look at thoughts as letters and words, they lose their ability to dominate us.

The therapist is providing a rationale for doing the exercise, so that the client can contact a thought as a thought, rather than buying into the literality of the thought.

An Important Note on Functional Contextualism (also known as Workability)

ACT is built on the philosophical model of functional as is the case with Applied Behavior Analysis (ABA) and Dialectic Behavior Therapy (DBT). It is important to note how functional contextualism helps in ACT comprehension. This model, of looking at behavior through the lens of *function* helps individuals build rewarding and meaningful lives.

The cornerstone of functional contextualism is to do functional analysis of a behavior with keeping in mind the context in which it occurs. Context implies observable behaviors and the situation in which the behavior occurs. An ACT therapist is interested in the function of the behavior, rather than the behavior in itself.

Distinguishing Between Function and Form of Behavior

A behavior is something that can be observed (overt behaviors). For example, if an individual is talking in a louder voice, this ‘talking in a louder tone’ becomes the observable behavior. However, it is important to distinguish between the form of the behavior (also called as topography), and the purpose of the behavior (also called as function of the behavior). This person could be talking in a louder voice for multiple reasons:

- To get someone’s attention
- To feel relief from pain and anger
- To scold someone
- To make an announcement
- To test the volume of a microphone

All of these reasons listed, refer to the function of the behavior. The same form of behavior (talking in a louder voice), can serve multiple functions.

It is noteworthy to mention that behaviors that cannot be observed on the outside, also called covert behaviors, can also have different functions attached to it. For example, an adolescent is studying for his upcoming exam. He could be analyzing a problem in his brain. This is the topography of behavior. The functions could be:

- Analyze over and over to stop feeling anxious about exams
- Analyze with the purpose of deducing different methods of solving the problem
- Analyze with the intention of revising the subject
- Analyze repeatedly to teach his friend more effectively
- Analyze over and over again to keep reassuring oneself that he is a capable student

Once, the function is zeroed in, it can be easier to help the clients see the importance of this concept of *workability*. That their behaviors are either working to give a more fulfilling, rich, rewarding life, or that their behaviors are instead taking them towards more stuckness. The concept of workability is tied closely to creative hopelessness, which is covered in detail in the next section.

With regard to functional analysis, in ACT, the point of therapy in addition to look at the function of behavior, is also to look at function of thoughts. The content of the thoughts actually is not important, but rather the interest is more on the function of thoughts. If the thought is “I am a failure”, in ACT, the question boils down to, “does getting preoccupied with this thought take you in the direction of the kind of life you want or away from the kind of life you want?”. An ACT therapist wouldn’t really work on changing the content of the thought “I am a failure” to “I am not a failure” or start a debate with clients to make them conclude that this is an irrational thought. This is illustrated below in Table 2.

Experiential Avoidance

Experiential avoidance, as the name implies, is an attempt to avoid or escape from experiencing unpleasant psychological experiences such as thoughts, feelings, emotions, body sensations and memories (Harris, 2009). As a matter of fact, experiential avoidance is a natural human response – we are by our experience,

Table 2. Some distinctions of looking at function of thoughts versus content of thoughts

Example thought: "I am a loser"	
Function	Content
Is this a helpful thought?	Is that really true?
Does getting absorbed in this thought motivate you to do things that make your life enriched – like exercising and eating well?	Instead of this, let's repeat a positive affirmation like, "I am a capable person".
Does this thought take you towards struggle and suffering or fulfilment and meaning?	Think about the times when you were not a loser. And remind yourself of that again and again.
If this thought becomes the guide for your actions, is it life-enhancing or life-worsening?	Does scoring a D grade, make you a loser?
<i>Note.</i> Adapted from ACT Made Simple, by Russ Harris, 2009, California: New Harbinger Publications.	

a very avoidant species. If an individual is bored, they immediately look for something to excite them. If an individual feels physical pain such as headache, they want immediate relief in the form of medicines. However, the problem is when experiential avoidance becomes excessive, it becomes an obstacle to live a life filled with meaning, purpose, and fulfilment. The most common example is alcoholism. Most individuals who take to alcohol, do so to get rid of painful feelings. They start to feel pain, they want immediate relief, they start drinking and feel better temporarily. However, it's not too long before the painful feelings come back again. They do more drinking and find themselves becoming addicts.

Another example, is anxiety. Anxiety is an emotion that all of us feel but people who suffer from anxiety disorders try as many strategies as possible to get rid of feeling anxious. It is that unpleasant and unwanted. Someone with social anxiety stops going to board meetings because it helps them temporarily escape from the dreadful anxiety. Someone with OCD, does compulsions to get rid of the fearful thoughts. More often than not, fusion and avoidance go hand in hand. Someone with depression can notice getting caught up with the thought, "I am a big failure", and trying hard to get rid of the unwanted memories of disappointment by binge-watching TV shows and oversleeping.

Changing the Context from Experiential Avoidance to Acceptance

The acceptance process uses mindfulness strategies to shift a person from using autopilot experiential avoidance strategies. It helps a person to feel their emotions with more openness and less struggle.

2. Vignette of a Client-Therapist Interaction

Client: I felt so useless at work today.

Therapist: Must have been disappointing for you. Let me ask you this. What are you feeling in your body right now?

The therapist is helping the client contact the physical experience of emotions.

Client: I have these knots that I am feeling in this moment.

Therapist: If these knots could have an emotional name, what would you call it?

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The therapist is asking the client to not just notice their emotions but also name their emotions.

Client: Anxiety, I guess? and disappointment.

Therapist: I was wondering if you are willing to place your attention on this feeling for just a few moments more?

The therapist is encouraging contacting emotions by placing one's attention over it.

Client: Yeah, okay.

Therapist: I am going to ask you to connect with your breathing, and give these knots in your stomach, lots of breath. Imagine that your breath can flow into these feelings.

Waits for 5 seconds

And as you are breathing into it, imagine that you have this ability to expand around this feeling. Like as if you can open up to this feeling...like as if you open wide and make some space for these feelings to be here inside of yourself.

Waits for 5 seconds

And as you are breathing and expanding, can I ask you to allow yourself to feel this feeling with more openness...like as if you can inhale these knots and this anxiety and this disappointment.

Waits for 5 seconds

The therapist has started the experiential acceptance exercise.

Client: Okay.

Therapist: Can we do a little rating now? At the start of the exercise, how much were you struggling with this feeling on a scale of 0-10, If 10 means, I don't like or want this feeling and I was struggling with this feeling a lot, 0 means, I don't like or want this feeling, but I am not struggling with this anymore.

The therapist is utilizing ratings as a strategy to assess the reduction of struggle the client has over their emotions.

Client: At the start, it was about 8. I was struggling a lot. Now, it is about 4.

Therapist: Okay. You know what we are doing now? We are practicing this skill called opening up to our inner world experiences. When we open up to our feelings fully, then it doesn't bother us so much. And we can then do something that is more important to us, like, having a more meaningful day at work.

The therapist is providing a rationale for doing the exercise, so that the client can contact and make space for an emotion, without getting into a power struggle with our emotions.

An Important Note on Creative Hopelessness

To put the experiential avoidance process in perspective, it is fueled by this attempt of trying to control our psychological experiences – our inner private events. In order for individuals to be more motivated to try different processes in a therapy setting, a primary strategy is to highlight the costs of these avoidant strategies.

Creative hopelessness is a commonly misunderstood term. This process is not about making a person feel hopeless about life, but to creatively maneuver a conversation into helping individuals see the hopelessness in control strategies. This creativity stems from using metaphors. In ACT, a major emphasis is placed on the usage of metaphors in session. A popular metaphor is the tug-of-war metaphor (Harris 2009):

Therapist: Assume that you're in a tug-of-war with a big anxiety monster. You are on one end, holding on to the rope, and the anxiety monster is on the other end, holding on to the other end of the rope. Imagine that instead of a central line, in the middle of you both, there's a huge, deep pit. You're working really hard and dragging the rope as hard as you can, but the monster is very strong and drags you closer to the pit. What's can someone do in a situation like this?

Client: Put more effort and pull even more hard.

Therapist: That sounds like a natural response. However, the monster is very strong in this case. The more you pull, the more the monster pulls. You're stuck. And you are struggling. What else can you do here?

Client: Drop the rope?

Therapist: Yes! When you drop the rope, notice that the monster has not gotten eliminated. He is still there, but it is important to see here that you are no longer struggling with the monster. Instead, you can in fact go ahead and take action towards the kind of life that matters to you!

As mentioned before, creative hopelessness is done side by side with workability. For the person suffering from alcohol, it could be to ask questions on how drinking is working for the client in the long-term? For the client with social anxiety, it could be to ask the costs of missing the board meeting. For the person with depression, it could be to ask the individual about how workable is this in taking the client towards the kind of life they value.

Consider the person suffering from depression. As soon as possible in a therapy setting, it is important for an ACT therapist to go through the *backend* processes,

Step one: Identify the function of behaviors. The purpose/function of lying in bed the whole day is to escape the pain of facing the world.

Step two: Workability. How is lying in bed working out for you? Is it taking you towards struggle and suffering, or towards a rewarding life? How has this worked in the long run?

Step three: Creative hopelessness. Use a metaphor to enhance the awareness of an individual about control and struggle with our inner events being an ineffective strategy.

Dominance of the Conceptualized Past and Future

Cognitive defusion and experiential avoidance can lead an individual to lose contact with the present moment – the here and now experience (Harris, 2009). Minds are wonderful time traveling machines,

and when we have thoughts and feelings about our past, whether it is going back and reliving some old moments or ruminating on old hurt and pain, it is referred to as dominating thoughts of conceptualized past. When we have worries about future or fantasies about what our future holds, it is referred to as dominating thought of conceptualized future. Fusing with conceptualized past and future is what pulls us away from the present.

Dominance of conceptualized future is commonly seen in clients with Generalized Anxiety Disorder, where they have constant worrying thoughts about what is going to happen next. Dominance of conceptualized past is commonly seen in clients with Clinical Depression, where the individual is seen fusing with painful memories from, with themes of failure.

Changing the Context from Dominance of Conceptualized Past and Future to Contacting the Present Moment

Contacting the present moment uses mindfulness to shift a human being from living in their minds (the world of language) to bringing them to the world of five senses experience (the world of direct experience). This is a useful skill for an individual to learn in therapy, often seen as classic formal mindfulness exercises that generally show up in in other therapeutic approaches such as Mindfulness-based Cognitive Therapy (MBCT). Contacting the present moment exercises helps with grounding and connecting with the outer environment, and also our inner psychological world.

3. Vignette of a Client-Therapist Interaction

Client: I felt so useless at work today.

Therapist: Sounds like you had a terrible day!

The therapist is empathizing with the client.

Client (looking down on the floor): Yeah.

Therapist: I notice that your gaze has shifted down to the floor. Today was one of those days that is really weighing you down. Can I ask you to do something with me here?

The therapist is noticing and calling out the shift in behavior that the client had, and additionally asking for permission from the client before starting the experiential exercise.

Client: Yeah. Okay.

Therapist: Can I ask you to push your feet on the floor, and take five slow, deep breaths. Slow down your breathing and focus on it.

Pauses for 5 seconds

Notice the inner sensations of your abdomen raising and falling down as you are breathing.

Pauses for 5 seconds

See if you can look at your thoughts like as if they were ongoing traffic on the street. Just coming and going and you standing on the footpath, watching it come and go.

Pauses for 5 seconds

Now, I am going to ask you to notice your breathing and your body. See if you can do this at the same time: noticing your breathing, along with your body. Then look around the room and notice what you can see with your eyes: point a few interesting objects in this room. Also, notice if you can hear a few sounds around you, in addition to my voice.

The therapist has started the expansive awareness exercise.

Therapist: What is happening as we are doing this? Do you notice any difference? Do you feel more engaged and present with me?

The therapist is asking the client to notice the difference the exercise has over the client. When we expand our awareness, we don't get caught up with our thoughts and we are able to act more effectively even in the presence of difficult thoughts.

Client: Yes, I do feel like I can focus better on what you are saying.

Therapist: You know when difficult thoughts show up, we get pulled away from being present. If we are not present, it gets difficult for us to address our problems effectively. I was wondering if you would be willing to practice this back at home? I will give you an audio recording?

The therapist is providing a rationale for the exercise.

Client: Sure, I will give this a try.

Attachment to the Conceptualized Self

Conceptualized self means the story that we have about who we are. This story can be related to our name and age, for example, "My name is Ramesh and I am 22 years old", or to other factual details such as, cultural background and job roles, for example, "I am a psychologist from India". It can include descriptions about how we are, such as, "I don't like going out to meet people. I prefer staying at home", or self-evaluations such as, "I am a shy and introverted person." It is normal to have a self-story. All of us have it. However, the problems stems from attachment (another word for fusion) with the self-story. For example, a negative self-statement such as, "I am not good enough" in the career context, when fused with, can lead to the person limiting themselves in growing in their career. Interestingly, a positive self-statement can also be a problem, if an individual gets fused with it. For instance, if someone considers themselves as "I am very strong, I have never cried in my life", can end up not handling failures well in their lives.

Changing the Context from Attachment to Conceptualized Self to Self-as-Context

Self-as-context is the process that is used to work with attachment to conceptualized self. In other words, when the self-story, “I am not capable enough” shows up, changing the context to being an observer of this statement, helps loosen the attachment to this self-statement (Harris 2009).

4. Vignette of a client-therapist interaction

Client: I felt so useless at work today.

Therapist: Looks like your mind is throwing some self-judgments today!

The therapist is providing empathy.

Client: But I am really so useless. I didn’t do anything at work today and spent the whole day wasting and being lazy.

Therapist: Okay. For the next thirty seconds, I was wondering if you wanted to just sit here with me, silently, and tune in to what your mind is saying. And if you notice your mind being exceptionally quiet, intentionally start thinking about how today was like for you. And I will bet that an onrush of thoughts is going to come in.

Waits for 30 seconds.

Reflect on this statement for a second. Are you the thoughts running in your head, or are you the one noticing the thoughts running in your head?

The therapist is providing a emphasizing the process of self-as-context by helping the client contact their observer self.

Client: Seems like I am the latter.

Therapist: Isn’t this interesting? Seems like there are three selves to you. Your physical self, which is your body that has different feelings and sensations. Your thinking self, your mind, that talks and chatters for most part of your day. Sometimes, this chattering is very judgmental, sometimes; it’s just random pleasant thoughts. And, notice this, there seems to be this observing self: this part of you that just notices what is happening in your body and your mind.

The therapist is providing a distinction between different selves.

Client: Okay. This is a bit confusing.

Therapist: Yes, it is quite confusing, because we are so used to using this thinking self, that we forget to notice that there is also an observing self - it’s like we have the ability to zoom out and notice. Let me ask you this. Is it easier to make space for challenging thoughts and feelings to come and go, when you look at it from the place of being an observer?

The therapist is acknowledging that this process is puzzling, and at the same time, she is placing emphasis on the observer self.

Client: Yes, I think I get what you are saying.

Lack of Values Clarity

When fusion and experiential avoidance start to become the guide for behaviors, life can lose vitality and fulfilment. For example, for someone with depression, if they continue to lie in bed because they get fused with the thought “I am a loser. Everything is so pointless. Why bother”, they will continue to withdraw from the world and lie in bed the whole day. So, using this thought to guide behaviors end up taking them away from what they truly value and want out of their lives – which is to have fun with friends, be productive, contribute and make a difference, and learn a new hobby. Individuals in the presence of fusion, lose contact with their values. For some individuals, it can also be hard to understand what they want from life – so, values clarification needs to be a starting point here. When values are not clear, it can be hard to have behaviors that are aligned with values.

Changing the Context from Lack of Values Clarity to Clarifying Values

A helpful point in therapy is to start conversations about values as early as possible. If an individual is encouraged to defuse from their challenging thoughts or make room for their difficult feelings, it is always for a reason. The reason is to connect with values. For example, “I am willing to open up to my anxiety, because it is important for me to attend the business meeting. I value growing in my career.” Or “I am willing to unhook from my thoughts, because being productive is what I value.” Hence, all the above process is always in the service of living by values.

5. Vignette of a Client-Therapist Interaction

Client: I felt so useless at work today.

Therapist: I can hear you being really disappointed.

The therapist is providing empathy.

Client: Yes, this is really not the kind of life I was hoping for in my 20s.

Therapist: Okay. Let me pause you for a second here. Let’s say, I can do magic, like the fairy, Son Pari. And let’s say, using my super powers, I took all these painful thoughts and made them powerless, like as if they had no power over you. As a result, imagine that you had the best day at work today! Like the kind of day that made you feel extremely fulfilled. And you were being the kind of employee you wanted to be like. Describe how this day would look like and how you would be like?

The therapist has started a values exercise.

Client: Well, the best day would be where I am finishing tasks on time and my boss is praising me. Also, it would also mean that I am chatting with my co-workers at tea break.

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Therapist: It sounds to me like, you value being committed at work and socializing with your co-workers.

The therapist is voicing out values by naming it out loud.

Client: Yes, when I was in college, I was a very social guy.

Therapist: So, if our work would be about living a life where you find meaning, where you are this person who is social and committed at work, would that be useful?

The therapist is motivating the client to work on building a more values-driven life.

Client: Yes, for sure!

Unworkable Action

Actions and behaviors that are self-defeating and unworkable come under this process. To give the example of a person with depression again, withdrawing from the world and lying in bed the whole day are unworkable patterns of behavior. They don't help the individual to move towards a fulfilling and meaningful life. Unworkable action in fact, are counterproductive. They keep an individual in a vicious loop of struggle and suffering. Sometimes these unworkable behaviors are the only behaviors that the person knows, for instance, eating junk food to get relief from pain. Sometimes, the individual knows that these unworkable actions are ineffective and yet the person is doing that again and again, because it is fueled by fusion and experiential avoidance. The best example is procrastination. An individual is aware that procrastinating is not something they want to do, and yet, they continue doing it, because fusion with "This task is too tough", and avoidance of boredom continue to drive this behavior of procrastination.

Changing the Context from Unworkable Action to Committed Action

Helping an individual take committed action guided by values is a vital process to unworkable patterns of behavior. It is important to note that when values become clear and individuals start to behave guided by these values, they start to notice that life feels fulfilling, meaningful, and filled with vitality and a sense of purpose. Values and committed action go hand in hand.

6. Vignette of a Client-Therapist Interaction

Client: I felt so useless at work today.

Therapist: It sounds like having a useful day at work is important for you.

The therapist is clarifying values.

Client: Yes, it is important for me to be productive, but all I ended up doing is browsing my phone.

Therapist: Okay. I heard you say productive there. So, it seems like you value being productive and hard-working. Can we use this as a guide to your behaviors? What I mean by that is, what is a small little behavior you could do in the next 24 hours, that would mean being productive and hardworking?

The therapist is helping the client commit to an action that is more workable.

Client: Well, I don't know. Maybe, do like all the tasks at work diligently?

Therapist: Seems like we are stretching the goal a bit too much. Let's break it down to smaller steps.

Would tomorrow morning, when you enter into office, checking all your emails instead of directly moving towards browsing your phone, mean productive for you?

The therapist is making workable action more specific.

Client: Yes, I guess so. But after that, I would just waste the whole day. I am sure of it.

Therapist: Okay. The key here is to start taking smaller steps. And then build up on that. I am going to set up bigger goals in sessions as we go along. For now, is the ten-minute checking email, something you would do tomorrow in the service of being productive?

The therapist is asking for commitment to practice outside of the session.

Client: Yes.

CHALLENGES AND ISSUES

A major challenge of working from the ACT modality is to merely view this as a therapeutic approach filled with technique. ACT is backed by the theory of language and cognition (RFT), and stands on the philosophical underpinning of Functional Contextualism. Missing these core methodologies, can make a candidate in ACT therapy feel like they are just learning techniques and nothing else. Therapy can feel mundane and too structured.

The other challenge is this common misconception of confusing tolerance and acceptance. Even experienced ACT therapists can get this concept wrong. Tolerance is putting up with something. Acceptance is fully opening up to something. ACT never advocates tolerating feelings, but feeling feelings more openly.

Another important point is that acceptance is a concept related to psychological events, not to outer events. For example, a woman going through domestic violence would never be suggested to accept her situation, but instead, she would be helped to accept/open up to her feelings of shame and pain, so that she can get the strength to leave her husband, and protect herself well in the midst of her crisis.

SOLUTIONS AND RECOMMENDATIONS

A strong therapeutic alliance is vital for effective therapy. Applying ACT on oneself to notice fusion with thoughts about clients, or being more present with clients and connecting with values of helping are important. Building on skills in ACT outside of sessions is vital.

A frequent therapist problem is to *talk* about ACT, rather than experientially *doing* ACT. It is important to let clients know that ACT is not a form of talk therapy, but a form of *talking and working* approach to therapy. Sessions might look like having at least one mindfulness exercise, and if the client

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does not like formal mindfulness exercise, then sessions can look like they are filled with fun, playful exercises such as singing your thoughts to a tune (Hayes, 2019), or writing exercises, such as the choice point (Harris, 2019).

When therapists are new to ACT, they might end up reinforcing the process of experiential avoidance, by teaching an ACT tool with the sole purpose of symptom reduction (Harris, 2013). For instance, a client who after practicing an acceptance exercise, might say, something like, “Wow! This is awesome! I feel like anxiety just went away”. At this point, therapists need to exercise caution, and say that although anxiety going away is great, that is not the main intention of the exercise. The exercise intends to develop a new way of looking at our emotions: with openness, and feeling anxiety with no struggle. It is important that the therapist is well-versed in ACT exercises, and is fully aware of the function of introducing an exercise to the client in session.

FUTURE RESEARCH DIRECTIONS

ACT is currently the fastest growing evidence-based therapy in the world. As of January 2019, ACT has at least 304 Randomized Control Trials (RCTs) being recorded all over the world (Association for Contextual Behavioral Science, 2019). More importantly, it has proven efficacious in a wide variety of cultural contexts, from countries such as Iran and Israel, to Australia and Malaysia. It is also used in a diverse set of psychological conditions, such as depression, OCD, chronic pain, grief and loss, anxiety and Post-Traumatic Stress Disorder (Association for Contextual Behavioral Science, 2019). It is noteworthy to mention that in the field of chronic pain, Acceptance and Commitment therapy has performed remarkably well, so much so that neurological functional Magnetic Resonance Imaging (fMRI) studies show a decrease in brain stimulation in just a span of four weeks (Aytur et al., 2020).

CONCLUSION

Using ACT as a main therapeutic modality strengthens the way we therapists work with our clients. It helps us to build powerful therapeutic relationships through usage of metaphors, and formal and informal ways of employing mindfulness exercises in sessions. This makes therapy work overall more experiential. It's non-pathological because the focus of therapy shifts to helping clients create fuller, meaningful, purposeful lives rather than merely working on handling the symptomology.

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KEY TERMS AND DEFINITIONS

Context: Context refers to an environmental setting in which events occur. When we look at an assorted bowl of fruits, the fruits constitute the *content*, and the bowl constitutes the *context*. Context come in two types: external context which involves things we can touch, taste, smell, taste and hear; and internal context which involves thoughts and feelings.

Experiential Exercises: Activities that is based on someone's experience. ACT is a therapeutic approach that involves using exercises, tools, and techniques to facilitate positive psychological change.

Hexaflex: A hexagon-shaped model that contains all the six key ACT processes.

Metaphorical Equivalence: Using a metaphor or an analogical comparison to explain a concept.

Psychological Flexibility: The ability to act effectively and do what is important, even in the face of adversity. Psychological flexibility is facilitating using ACT processes and it is a vital component of therapy work.

Relational Frame Theory: This is a behavioral theory of human language of cognition. Relational frame theory claims that using language and verbal skills, human beings can relate two different discrete things. This process is termed as relational framing, and can consist of many different types of framing such as coordination, hierarchical, and deictic.

Chapter 6

Mindfulness and the Elderly

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ABSTRACT

With growing life expectancy, age-related mental health issues are rising in the elderly. Whether normal aging or pathological senility, mindfulness practices are useful, economic, and accessible. The elderly experience many forms of anxiety with varying severity. There can be stress, anxiety, depression, and negative emotions. Quality of life and sleep, cognitive impairments, chronic pain, decreased social contacts are common concerns of the elderly. There is growing evidence that mindfulness practices mitigate their suffering. This chapter covers details on mindfulness-based tools for the elderly, their practices, exercises, and techniques. The recommended techniques are group-based, participatory, age-appropriate, and reflective. Given the vulnerability of the elderly, the chapter cautions about latent medico-legal and ethical issues in using mindfulness for the elderly. They must be blended with cultural, religious, moral, and spiritual elements to derive optimum benefits for the individual or small groups of such persons. A future road map is given.

INTRODUCTION

Life expectancy in India was around fifty years in the 1980s. Currently, it is close to seventy in the country and 85 years in Japan and Singapore. Many nations are greying. Gerontology is a science for understanding the process of aging and the challenges encountered as seniors grow old. Some experts distinguish between the young-old (60-75 years), middle-old (75-84 years), and old-old (85+ years) (Paltasingh & Tyagi, 2015).

Mindfulness comes in various shades and concoctions. There is no standard universally accepted definition. Mindfulness is the practice of paying attention or observation in the present moment intentionally and with non-judgment, to one's thoughts, feelings, and body states. In the field of psychology, this moment-to-moment awareness of one's experience without judgment is a state and not a trait. Advocates of mindfulness list its benefits as increased objectivity, self-control, affect tolerance, equanimity, calmness, relaxation, enhanced flexibility, emotional, moral, and spiritual intelligence; management of pain, anxiety or depression; improved focus, attention-concentration, working memory, executive functions,

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and mental clarity; empathy, acceptance and compassion for others, reduced rumination, stress reduction, amelioration in coping skills, quality of life, general health and longevity, enhanced sleep, digestion, and appetite. There are some more, such as slowing down the speed of aging, especially in clinical conditions like Alzheimer's or other forms of dementia (Bishop et al. 2017; Gethin, 2011; Shapiro et al., 2009).

While the basics of mindfulness such as its origins and history, definitions, nature, working and types, merits, demerits, processes, techniques, and practices, are available elsewhere for interested readers—both, informal (Armory, 2013; Kabat-Zinn, 2017; Mercree, 2017; Peterson, 2018) and formal (Brown et al., 2015; McCown et al., 2016). This chapter restrict its discourse to the elderly. Rooted in the west, mindfulness practices with the elderly are claimed to increase their mental flexibility, promote healthy ageing, improve longevity, decrease loneliness, hostility, stress, somatisation, anxiety and depression, cope personal loss, overcome feelings of isolation and loneliness, improve physical health and self-esteem, teach skills to face and deal with life challenges (Alexander et al., 1989; Fountain-Zaragoza & Prakash, 2017; Parra et al. 2019). Above everything, the good news is that mindfulness can be taught to seniors singly or as community groups (Lindberg, 2005).

NORMAL AGING

Although changes occur in every organ system as one grows old, sensory changes, decline of muscle mass and strength, fat changes, decreased immunity, urologic changes, and slowed down physical functions are characteristic of normal aging. At the psychological or cognitive level, mild short-term memory loss, word-finding difficulties, and slower processing speed are normal parts of aging. Brain aging does not happen at a uniform rate for all the elderly. Genetic and social factors play a protective role in aging. Some common misconceptions about use of mindfulness techniques with elderly are given in (Box 1).

Box 1. Common misconceptions about mindfulness & aging

1. Brain power disappears gradually with age;
2. Aging takes away ones joys and happiness;
3. Older adults are lonely. Use of mindfulness in old age can make one more isolated;
4. Older adults have multiple health conditions;
5. Aging limits one's ability to learn or practice mindfulness;
6. Practice of mindfulness during old age can be tiring;
7. Mindfulness practice at the far end of one's life makes no sense;
8. Practice of mindfulness will gradually convert you into Buddhism;
9. Mindfulness is all about sitting still or quiet and emptying the mind;
10. Mindfulness is to do with finding a quiet location without distractions, assuming a posture, and focussing ones attention

Successful and positive aging entails the acceptance and coping with the inevitable changes or challenges of aging. There is limited research on promoting successful aging through skill training for elders. Therefore, it is pertinent to ask if mindfulness practices can be taught or will be accepted for benefit of the elderly. The effectiveness of adapted forms of mindfulness and self-compassion therapy in improving coping ability and adaptation to stressful situations in the non-institutionalized elderly living in a community was shown for improving resilience and coping strategies and reducing their anxiety and stress levels (Moss et al. 2015; Perez-Blasco et al., 2016). Another study using a non-experimental research

design showed mindfulness interventions optimised life satisfaction and spiritual wellbeing amongst the elderly (Bester et al., 2016). In an innovative Indian attempt, use of mindfulness techniques was combined with recitation of Gayathri mantra (a.k.a. Savithri Mantra), a highly revered verse from Rig Veda, for decreasing anxiety in the elderly (Candrawati et al., 2018).

Many types of anxiety are experienced during old age. At a superficial level, they may feel transient states of free-floating anxiety that appear and go away on its own. They can experience separation anxiety, death anxiety, fears of alienation, or social anxiety, panic and stress reactions with symptoms like shakiness, difficulty in breathing, dizziness, light-headedness, sweating, digestion problems, fatigue, irritability, scary thoughts, and resistance to leaving home, avoidance of activities, places, or persons. Of particular importance is the handling of death anxiety by elders through mindfulness practice. They are likely to feel dread, apprehension or extreme concern when thinking about the process of dying or detaching from life as well as what happens after death. The nature, content, or level of death anxiety may vary with the health condition, socio-cultural, and religious background of the individual. There are standardized death anxiety scales to assess this construct for research.

Kwon et al. (2020) attempted a preliminary review of mindfulness meditation programs for the elderly in Korea across available domestic electronic databases. Among the 16 articles were twelve clinical studies in the review. The frequency and duration of sessions varied with several reports on dropouts. The poor program compliance was attributed to conflicting schedules, physical illness, or a change of mind. The program results were either positive or mixed, but the mindfulness level of the participants improved. *Can mindfulness-based interventions influence cognitive function in older adults?* A review of six reports, including three Randomized Controlled Trials (RCTs), showed positive effects on memory, executive function, and processing speed. Although they had a high risk of bias and that their sample sizes were small (Berk et al., 2017).

A related concept called **Mindful Sustainable Aging** (MSA; Nilsson, Bulow, & Kazemi, 2015), which supports the physical, mental, social, and existential dimensions of the old life, is gathering attention. Mindfulness experience is understood in the background of various theories of aging (Box 2). If mindfulness practices can bring about changes in an aging brain, how do the theories explain it? It is claimed that there is a real-time increase in the brain's "grey matter" following 8-week Mindfulness-Based Stress Reduction (MBSR) classes (Holzel et al. 2011). There is another assertion that improvements occur in the immune system and brain (Davidson et al. 2003), and a decrease happens in cellular aging and disease protection by way increase in telomeres (Epel et al., 2009). The impact of 12-week yoga and meditation (not necessarily mindfulness-based) in healthy older adults showed improvements in biomarkers influencing cellular aging compared to baseline values, although the gains were not statistically significant (Tolahunase et al., 2017). There are counter-arguments that these changes are only modest and show no transfer effects of mindfulness practice on the aging brain (Prakash et al., 2014). There are many unanswered questions too. *Is mindfulness training associated with improvements in emotional and cognitive control in older adults? Just how much or how long training brings about the needed change? Does the mindfulness training bring about cellular, organic, molecular, neural, or structural brain changes?*

Box 2. Theories of aging

Issues like senescence, aging, longevity, and human life expectancy is an elusive and ever-evolving field. Aging is a universal, progressive, unstoppable, intrinsic, and deleterious process. An understanding of these theories is made the cornerstone for some people to indulge in anti-aging behaviors. Attempts are made to keep the body feeling as young as possible through eating foods loaded with anti-oxidants, exercising regularly, keeping cholesterol levels low, and maintaining mental fitness.

1. BIOLOGICAL:

This group of theories stresses on pre-programmed biological timetable regulated by gene expression that affects the systems responsible for maintenance, repair, and defense responses. Some of these theories acknowledge the role of environmental assaults in living organisms that induce cumulative damage. The wear and tear of the neuroendocrine system, cells, and tissues are linked to aging. As one grows older, the hypothalamus, for example, secretion of many hormones decline; they lose their precision, regulatory activity, and the receptors become less sensitive. If one theory implicates mitochondria, another contends that the accumulated effect of DNA damage over time or the undegradable by metabolism products results in aging. In this aspect, some neurological conditions like Alzheimer's are high risk for rapid aging (Jin 2010; Sergiev et al., 2015).

2. SOCIOLOGICAL:

These theories observe how increasing age is associated with changing roles, relationships, status and generational experiences which impact aging. One theory notes how there is **disengagement** or increased social withdrawal or lesser involvement of the persons with society as they grow old. However, this is not true with all persons across all cultures. Another theory stresses the value of **ongoing social activity**. Retirement in one role may not be so harmful if the person substitutes to maintain an active role in other spheres of life, such as family, recreation, and community service. Health and mobility are viewed as key determinants to quality of aging.

3. PSYCHOLOGICAL:

These theories explain aging as a function of factors like need, emotions, attitudes, mental processes, motivation, and personality. For example, older adults may search for life meaning and adapt to social and functional issues. According to Erikson (1959), the eight stages of human life resolve the crises between integrity and despair wherein every person is concerned with life review and finding meaning. The focus on non-reflection and non-judgmental paying attention in mindfulness can help in this process for the aged groups. Havighurst (1948) identified adjustments to physical, financial, and social decline, adapting to retirement and reduced income, coming to terms with the death of a spouse, maintaining social distance with people, assuming the role of guide for the younger generation, contemplating death, and developing a meaningful personal perspective towards the end of life as the critical developmental tasks towards the end stage of life. According to the Continuity Theory, older adults who thought they have not changed or are much the same person over the years, had stable personalities and lived better or longer. Robert Peck added three more tasks during old age: Ego differentiation vs. Work role preoccupation; Body transcendence vs. Body preoccupation, and Ego transcendence vs. Ego preoccupation.

4. EVOLUTIONARY SENESCENCE:

This theory predicts that delay in the age of reproduction should delay aging. Experiments on fruit flies denied or delayed for mating living longer has supported this notion. An ancient theory argues that each person has a predetermined number of breaths or heartbeats, and that once that count was used death ensued. In recent times, this theory is invoked once again as a kind of "cellular clock," beyond which times, it is stated that cells cannot replicate themselves.

CLINICAL CONDITIONS

Not every aging sign or symptom is to be viewed as pathological. There are several common clinical conditions in the elderly. Cardiovascular disease, osteoporosis, depression, and dementia top the list along with hypertension, diabetes, and mobility-related disabilities in what is described as "young-old" and the "old-old." In an attempt to use longitudinal mixed methods to investigate whether mindfulness practice can improve health outcomes of mild cognitive impairments, with a follow-up over one year, on a small sample of 14 older participants and with no active control group, it was found to be an efficacious non-pharmacological therapeutic intervention (Wong et al., 2017).

To begin with, most studies on the use of Mindfulness-Based Cognitive Therapy (MBCT) practices have targeted older people with anxiety-depression singly or as a combination (Smith, 2006; 2004; Smith et al., 2007). In a systematic review of ten studies on the theme, five used mixed methods, one non-controlled quasi-experimental study, one wait-list controlled quasi-experimental study, a collection of five single case reports and a RCT, results showed that they have multiple methodological weakness that limit their utility in clinical practice (Thomas et al., 2020). Mathur et al. (2016) used a series of case studies to show how 8-sessions of MBCT over eight weeks resulted in clinically significant improve-

ments in the severity of depression, acceptance, and overall quality of life. O'Connor et al. (2014) used MBCT in a controlled pilot study to investigate the effects of **depressive symptoms** in elderly bereaved people with long-term loss-related distress symptoms: their severity of depression, complicated grief, posttraumatic stress, and working memory. The authors recommended further studies in this population for firm conclusions. *The small size of the sample, absence of control groups, potential bias owing to the non-blinding of participants, and other methodological shortcomings were noted as the limitations in these studies* (Hick & Chan, 2010; Tsang et al., 2008).

The same therapy was found to be effective in altering core of life expectancy, depression, and death anxiety in both pre-test and post-test levels on an experimental group of older women (Saatchi, 2019). MBSR was tried by using a quasi-experimental pre-test, post-test control group design on depression among the elderly in residential homes, Bangalore. This study revealed significant reduction in clinical depression and increase in mindfulness for the experimental group (Kumar et al., 2014). A similar improvement in post-intervention depression scores was reported in inmates of homes for aged in Pune city following Mindfulness-Based Intervention (MBI), although there was no mention of what, where, when, or how long the intervening variables were introduced in this poorly designed study (Misal & Upendra, 2020). Thus, in attempting to gather empirical evidence on the effects of Mindfulness-Based Interventions (MBIs) on the elderly population, keyword searches on major databases showed a generic reduction of depressive symptoms, blood pressure, stress, and anxiety, acceptance of disease and disabilities, improvement in the quality of sleep, relief of dyspnea, control of pain, and attenuation of cognitive decline (Souza et al., 2019).

It is debated, whether inner-directed and introspective therapeutic mindfulness techniques are advisable for persons with Severe and Persistent Mental Illness (SPMI). In a review of articles on MBI for SPMI covering six RCTs, seven prospective studies, and one retrospective study, clinical improvements were observed on psychotic symptoms, depressive symptoms, cognition, psycho-social, and vocational factors. The study demonstrated the feasibility of using MBI in these patients, although larger definitive studies, using greater methodological rigor and thorough assessments of other psychiatric populations, were recommended before arriving at definite conclusions (Potes et al. 2018). *A question remains whether contemplative mindfulness practices might aggravate or trigger incipient and dormant pre-psychotic symptoms in the elderly.*

Mindfulness programs are shown to improve **quality of life and sleep**, and decrease depression and anxiety among the older women (Ahmadpanah et al. 2017; Black et al., 2015; Gallegos et al., 2018; Kim et al., 2014; Kitsumban et al., 2009; Naiken, 2019). Decker et al., (2015) reviewed literature on a non-pharmacological approach to interventions based on mindfulness for elderly **chronic pain**. Other similar studies using RCTs, qualitative techniques and have shown improvement in pain acceptance and physical function (Kabat-Zinn 1982; Morone et al. 2009a, 2009b, 2008a, 2008b, 2016). Klainin-Yobas et al. (2019) used RCT to study the effects of mindfulness and Health Education Programs (HEP) on the emotional state and cognitive function of elderly individuals with **mild cognitive impairment**. Results indicated that the HEP was more effective than a MAP, although both appeared beneficial in maintaining cognitive function. Kovach et al. (2018) used a cross-over design to study the effects of mindfulness interventions on individuals in moderate and severe dementia stages to find statistically significant short-term changes in agitation, discomfort, anger, and anxiety. Long-term changes in outcome were not found. Night time sleep did not improve, but the participants slept less during the day. Wetherell et al. (2017) used MBSR techniques on older adults to observe improvements in their excessive worry

and depression. Other clinical conditions that have been addressed using MBSR include urge urinary incontinence (Felsted & Supiano, 2019) and hypertension (Palta et al. 2012).

Latorraca et al. (2017) sought to assess mindfulness meditation's effectiveness and safety for **palliative care patients**. The authors noticed a high risk of bias in all the four reviewed RCTs for adult cancer patients (although not the elderly) in palliative care (Stevens & Brooke, 2019). None of the included studies analyzed the safety and harms outcomes. The study of mindfulness in elderly disabled with physical or sensory impairments and marginalized groups like lesbian, gay, bisexual, and transgender (LGBT) people is another relatively neglected area of research. Studies typically seek to exclude these persons from their sample to avoid contamination. Marques-Brocksopp (2014) used semi-structured interviews with **blind and partially sighted persons** who participated in regular mindfulness practice. Analysis of their narratives showed enhanced spiritual wellbeing by increasing their sense of interpersonal, intrapersonal, and transpersonal connectedness. Dehnabi et al. (2017) showed a reduction in the total score of social anxiety following MBSR in a group of **deaf individuals**. Many more marginalized clinical and non-clinical elderly populations, such as those with learning disabilities, multiple sclerosis, thalassemia major, sickle cell anemia, and others are yet to be studied. *A critical question not yet answered is whether mindfulness-based techniques or practices vary based on disease, disorder, or disability conditions?*

Attempts have been made not only to address stress management using MBI in the elderly but also on their **family caregivers** to record benefits like reduction in their depressive symptoms, burden, perceived stress, anxiety, and general health (Epstein-Lubow et al., 2011; Hou et al. 2014; McBee, 2003). Caregivers of older adults with dementia face many hardships. In their living with the dying, they need support, psycho-education, and behavior management skills along with mindfulness training. This is admittedly an ignored area of research (Mackenzie & Poulin, 2006). In a quasi-experimental study, the wives of patients with schizophrenia who underwent MBCT showed greater post intervention resilience scores than matched control group who underwent no intervention (Solati, 2017). Similar beneficial effects are reported with MBCT in mothers of deaf children (Soleymani & Jabari, 2017).

RESEARCH EVIDENCE

There is no undisputed evidence on the efficacy of MBI for the elderly. The mixed findings are explained as probably due to methodological flaws, study limitations, and inconsistent modification of protocols across studies. Based on a comprehensive literature search covering 285 research articles from standard databases, on use of MBI strategies with the elderly, after adopting rigorous exclusion criteria, only 15 studies were included for a review. The excluded 95 per cent of the articles were found to be wanting because they were just case reports, qualitative research, conference proceedings, had faulty study designs, or no standard definitions of mindfulness. There are numerous methodological and conceptual problems, no commonly agreed upon MBI duration or strategies in the included studies. Owing to the small body of literature to date on older adults, added with generally higher attrition rates (23-64%), mobility/transportation problems, death or illness in this population as compared to younger healthy adults (18%), conclusive evidence is unavailable (Geiger et al., 2016).

There are no specifically created MBIs exclusively designed for aged. Many of them are delivered in the community, targeted, and piloted for "positive aging" rather than treating disease, dysfunction or disorder. Does gender play a role in mindfulness practices or their efficacy? The indications are that women's negative moods decreased more compared to matched age group of men following the

practice MBIs. However, there is also a counter-argument that the differences are owing to gender per se. It may be that women improve more after MBI because of gender-based mechanistic differences in emotion regulation techniques or because the practice works on changing the habit of internalizing the response to stress. Probably, women avoid fixating on or overreacting to negative feelings and are less critical and more compassionate towards them. A combination of age and gender is found to be more favorable. After all, is not there a general impression that most of the monks who practice mindfulness are men (Alispahic & Hasanbegovic-Anic 2017; Kang et al. 2018; Katz & Toner 2013; Rojiani et al., 2017; Wang & Chopel, 2017)?

Unlike in the use of MBIs in research on children, adolescents, and adults, no manualized treatments for this population have been published. There are no exclusive written text-books exclusively on mindfulness in the seniors, aged, or elderly. There are some chapters on this theme found inside some books on geriatric medicine or psychiatry, clinical gerontological psychology, alternative medicine, aging, and ageism. This is an area that the research community in mindfulness and gerontology needs further engagement urgently.

MINDFULNESS TOOLS FOR ELDERLY

Despite unanswered questions on the definition, theoretical and conceptual issues on or about mindfulness, few research instruments have been developed for clinical use as measures such as, the Cognitive and Affective Mindfulness Scale, Freiburg Mindfulness Inventory, Kentucky Inventory of Mindfulness Skills, Mindful Attention Awareness Scale, Adolescent and Adult Mindfulness Scale, Interpersonal Mindfulness Scale, Philadelphia Mindfulness Scale, Southampton Mindfulness Questionnaire, State Mindfulness Scale, Comprehensive Inventory of Mindfulness Experience-beta, and Toronto Mindfulness Scale (Bergomi et al., 2013; Cardaciotto et al., 2008; Drouman et al., 2018; Erusand-Tekel 2020; Hill & Labbe, 2014; Lau et al., 2006; Medvedev et al., 2016; Ruimi et al., 2019; Tanay & Bernstein, 2013; Walach et al., 2006). Note that most of them do not address the elderly. In an exclusive literature review of existing mindfulness measures in older adults, only three studies had participants with a mean age of 50 and over, wherein the 5-Facet Mindfulness Questionnaire and Langer Mindfulness Scale were used (Jacobs et al., 2019).

MINDFULNESS PRACTICES

As mentioned, there are no standardised and manualized MBI techniques or tools exclusively for the elders. Different sources offer various combinations of mindfulness activities for seniors. They generally include: meditation, deep breathing, body scan, mind mapping, mood tracking, morning journal, mindful eating, meditation music, seated yoga stretches, mindful imagery, walking, spending time with nature, etc. Of course, there are apps and podcasts on mindfulness practices, such as, Headspace, Calm, The Mindfulness App, The One Minute Podcast, and many more. Use them if needed. However, never become a slave for them.

Mindfulness exercises (Box 3) can be practiced anywhere, any time and as long as ones desires. It can be undertaken indoors or outdoors, in sitting, standing position or while walking, with a mentor, guide and supervisor, or all alone or in small groups. A few precautions to be followed during mindfulness

practices with seniors are: using rails and hand grips in wet areas, getting and sitting or standing slowly, seeking assistance while lifting heavy objects, adhering to correct posture, never hurrying, spreading positivity, and others.

Mindfulness practices for senior can be augmented with additional alterations in the life styles of the elderly. They may encouraged once in a while to eat out, spend a movie night, take a family outing, go on road trips, shop, attend satsangs, make a pilgrimage, participate in local events, become a member of organizations, travel, visit the local market, track their nutrition, exercises, or explore new diets. They might track their steps, do yoga, go out for walks, get a massage, garden, adopt a pet, learn an instrument, write, maintain a fish tank, mentor or teach a child, play board games, solve puzzles or crosswords, listen to music, draw a family tree, indulge in art-craft work, set up a neighborhood library, do some part-time job, and so on.

Box 3. Mindfulness exercises for elderly

1. If undertaken in a group, the participants may take any particular **object** such as a fruit say an orange or an apple. Each participant must pay careful attention to how it looks, how it feels, how their skin responds to its manipulation, how it smells and tastes.
2. Another group based mindfulness activity suitable for the elderly is **body scan**. This 30-minute group work requires the participants to lie on their back, with their palms facing up and their feet falling slightly apart. This exercise can be also done by standing or sitting comfortably on a chair with feet resting on the floor. The participants bring awareness to their breath, notice its rhythm by inhaling-exhaling, simultaneously feel the texture of clothing against their skin, the contours of the surface on which their body is resting, the temperature of the body and the environment. They observe every little thing of their body from head to toe from forehead, scalp, back and top of head, nostrils, neck, hands, chest, abdomen, pelvic region, thighs, knees, to the sole.
3. In **mindful seeing**, be at a window with some kind of view of the outside world. One must then look at everything that there is to see. Avoid labeling or categorizing them. Instead of thinking about them as “tree” or “car,” one must try to notice their shape, color, texture, patterns or movements they make. Be observant, not critical. Be aware, but not fixated. If distracted, gently pull back the attention away from them and re-focus on the chosen object’s qualities.
4. **Mindful listening** is to do with hearing without preconceptions or judgments. If undertaken as a group activity, every participant has to take turns in sharing their story with the group at the end of it. Attention is to be directed towards how others speak, or they talk, along with what is said.
5. In the **five senses exercise**, the participant notices five things one can see, four things of what one can feel, three things of what you can hear, two things of what you can smell, and one thing related to taste. It is all to do with the current moment and is to be carried out without making any judgments.
6. In another **three-step mindfulness exercise**, the subject has to pause and bring awareness about what one is doing, thinking, and sensing at the moment. Start this exercise by taking a comfortable but dignified posture, noticing the thought that comes up, acknowledging the feelings, and let them pass. About five-six deep breaths may be taken to re-focus attention on one thing within the body. The last step is to expand awareness out of the body to the environment. Notice the shapes, textures, colors, and designs of the objects around. In the end, open the eyes and go about the activities of the day.
7. In the **mindfulness imagery technique**, one can visualize an everyday scene. For example, it could be an everyday activity like walking down a familiar street. Re-enact that scene mentally by even visualizing someone one sees across the street, wave, and see them wave back or not. Observe their dress, appearance, actions, or mannerisms.
8. **Internet Mindfulness Meditation Intervention (IMMI; Wahbeh 2018)** is a low-cost 6-week online, easily accessible, standardized, and structured home practice program using didactic instructions and discussions on stress, relaxation, meditation, and mind-body interactions.
9. Creating, maintaining and talking to an **invisible companion** is commonly used but rarely admitted strategy of mindfulness practice by healthy adults to beat stress and buffer adjustments. There is a thin line of distinction between this practice and falling into insanity. Talking to self within and in private is fine. If one starts seeing visions and hearing voices of the invisible companion then it becomes a dangerous mental health issue.

MINDFULNESS AND THE ELDERLY DURING THE PANDEMIC-ETHICAL AND MEDICO-LEGAL ISSUES

Irrespective of their use as a tool for clinical practice or for altering the daily lifestyles of the elderly, or as a theme for research, mindfulness raises important medico-legal and ethical issues that merit discussion. Ethical considerations and implications of MBI are less discussed. The implications of such practices with the elderly, aged, and seniors are never raised. One of the objections to the MBI, especially in the west, is that it violates their religious beliefs. *Are there certified practitioners of mindfulness?* It is argued that many patients are not informed about the religious provenance of the techniques, thereby violating the informed consent obligations owed to clients (Levin, 2019; Schwenkler, 2014). The credibility of mindfulness practices is in doubt. *Can mindfulness achieve so many things*, such as enhance one's awareness, ability to pay attention in the present moment, be non-judgemental, facilitate empathy, compassion, attention, and emotional regulation, reduce stress, change perspectives on the self is dubbed as stretching afar?

Further, *does it not need formal training and qualifications for its proponents in their use with the aged? What about accreditation to a professional body, following the code of ethics for its practice? Are there outlets for receiving or reviewing complaints, promoting benefits and avoiding harm, its use in an honest manner, with due respect for the senior client's rights and dignity* (Harrington & Dunne, 2015; Parrha et al., 2019)? A few institutions are in place both in the east and west who offer online or offline certificate level courses for mindfulness counselor, teacher, healer, or minister for nominal payments. Ruedy & Schweitzer (2010) noted that individuals high on mindfulness are less likely to be cheated, thereby demonstrating meaningful connections between mindfulness and ethical decision making.

Ethics related questions become pertinent when mindfulness practices are recommended or used for targeting clinical populations like elders with severe mental illnesses and neurodegenerative disorders (Berk et al., 2018). Mindfulness practices are embedded in a cultural context. Issues like informed consent, transparency, cultural relativism, and respect for cultural and religious diversity gather meaning and importance. Ethical considerations for research on mindfulness with the elderly are not limited to the usual, like informed consent, privacy, and confidentiality. Non-maleficence and beneficence are to be upheld.

An upcoming urgent concern is the predicament of the seniors, aged, and elderly during the ongoing pandemic. This population of people is frequently touted to be the most vulnerable. This leaves them anxious and fearful about their health during the crises. It is a much bigger fight for them, which they have to fend for themselves emotionally. Many of them would have seen the worst things-wars, cyclones, tsunamis, floods, blood-spilling riots, or earthquakes. However, none of them would have been like the present-a-house arrest, decreased social contacts, no hugs or kisses, masked faces, body distancing, and much more. There are risks of running out of contacts, connectivity, doctor consultations, medicines, or money during this crisis. There is growing talk of corona virus anxiety. Negativism and pessimism come naturally and contagiously to one and all, including the elderly, during these difficult times. This is the time to be positive, concentrate on breathing, or reduce stress, anger, and anxiety. It is the time to cultivate gratitude or a sense of thanksgiving for favors received. Here is an opportunity to put down mobile devices, switch off the television, and decrease screen time to the minimum. Instead, the focus should be on stimulating the brain through solving crosswords, Sudoku, reading, meditation, engaging in the senses, or simply sitting and doing nothing.

MINDFULNESS, CULTURE, RELIGIOSITY, AND SPIRITUALITY

Religiosity or religiousness is an umbrella term that refers to one's interest, involvement, or participation in religious activity, dedication, and belief. For many older adults, religiosity is a positively enabling or empowering experience. It gives them a sense of meaning or purpose in life. It gives a more remarkable ability to cope with illness and disability (Malone & Dadswell, 2018). Spirituality is about a boundary-less dimension of human experience involving seeking a meaningful connection with something bigger than oneself. It can result in positive emotions like peace, gratitude, contentment, and acceptance. It is about discovering one's inner awareness. For some, being spiritual is not necessarily being religious. Spiritual practices may include meditation, contemplation, asceticism, prayer, mindfulness, music, singing and mantra chanting, being the observer, undertaking pilgrimage, or selfless service. The combined use of mindfulness, religiosity, and spirituality in the aging is a powerful concoction to boost their health, longevity, and quality of life (Ahmad & Khan, 2016; Jackson et al., 2016; Klee & Robertson, 2015; Shukla, 2015; Zimmer et al., 2016).

A theme of particular interest emanating from the confluence of mindfulness, religiosity, and spirituality in the seniors are the notions of dying with dignity, physician-assisted suicide, death and dying. Reactions in the aged to death vary from shock, denial, anger, bargaining, depression, to acceptance (Pathath, 2016). In Jainism, for example, there is the concept of "Sallekhana" or "Santhara" a somber rite through which one fast unto death. The Jain tradition, close to the Buddhist ancestry of mindfulness practices-although different from it-is based on rites rather than rights. It shows how one can move without attachment to death rather than clinging to life. Old age is both a moment of reflection on the life lived and a made-choice to encounter and accept one's death. Jain meditation also mentions an inward journey, relaxation with self-awareness, perception of breathing, awareness of one's body, and auto-suggestions-having many similarities with mindfulness practices. Meditation, known as Simran, is needed to achieve spiritual goals alongside good deeds in Sikhism. Zoroastrian faith of the Parsi community believes in mindfulness practices as a daily way of life involving focussed attention and available monitoring methods. The virtues of silence and mindfulness have been recognized even in the Islamic tradition. The word *muraqabah* means "to watch, observe, regard attentively." It is a complete state of vigilant self-awareness between one's body, activities, heart, and mind (Thomas et al., 2017).

Culture refers to the unique way of life of groups of people. It separates a group of people from others through its actions. Culture is the "total of customs, arts, science, political, and religious behavior taken as an integrated whole that distinguishes one society from the other." Culture plays a critical role in the perception of aging. In some cultures, a senior is revered, respected, and regarded highly. Others may view them as objects of interference, burden, liability, or even a downright nuisance. An understanding of the aging phenomenon or the aged is incomplete unless one takes into account their culture. Culture is an essential factor in successful aging. A happy marriage, higher education levels, availability of social supports, social perceptions of the aged, quality of social relationships, and stereotypes about aging about their looks or appearance, authority, wisdom, respect, knowledge, and general life satisfaction counts. Highlighting a socio-cultural element in mindfulness practices, and despite poorly developed mental health systems, it is shown that Vietnamese Buddhist temples offer the needed buffer for mindful aging for its senior citizens (Nguyen, 2016). It is not merely the availability but also the basic acceptability of its practice to make it their way of life that marks its use by the elderly (Parra et al., 2019).

Despite this topic's growing popularity on spirituality vis-a-vis mindfulness, these constructs' measurement remains challenging (Kapusinski & Masters, 2010). A working definition of these terms is

beset with several disagreements, and many of these studies are surrounded by weak methodologies (Oman, 2013). Religious practices need not always have beneficial effects. Sometimes, it may promote excessive guilt, narrow mindedness, inflexibility, and anxiety. Naz et al. (2020) reported that institutionalized elderly were higher on mindfulness levels than non-institutionalized elderly with more serenity and religious coping. However, spiritual practices may be contraindicated for older people with OCD, bipolar disorder, schizophrenia, or psychoses. Those with gender or sexual identity problems are likely to feel isolated and alienated from faith communities.

FUTURE DIRECTIONS

The world is getting older. By 2050, it is projected that there can be older people above 65 in the world than children under five. The elderly are the future. Longevity is on the rise. What about the costs of adult health care and the quality of their life? What about their physical, mental, and emotional health? Contemporary and future societies are increasingly being driven by technology. Unless the elders are kept included, and in pace with the gadgets, they are likely to suffer exclusion, neglect, loneliness, and depression. More elders are moving out of their homes into group living and community care. All this can likely impact on mindfulness practices of the elderly in the future of humankind (Rogers & Mitzner, 2017).

CONCLUSION

An underlying and often questioned premise underlying mindfulness-based practices is that most of the ills in the individual are within themselves. Therefore, re-channelling or re-tuning their mind is a personal effort that can lead to positive experiences. It is often alleged that mindfulness has been oversold and commoditized, and reduced to a technique for just about any instrumental purpose. It has turned into a billion-dollar business. Mindfulness meditation is claimed to spark neuro-plastic renovations in the structure and functioning of the human brain. But, the questions are unanswered about just how much or how long these changes in brain activity is sustained. The criticism on mindfulness practices for children and adolescents elsewhere by the same author also hold for the elderly. A vigilant reader would have followed the severally italicised questions in this chapter that needs enquiry.

In sum, mindfulness practices cannot be understood as a stand-alone panacea for all the problems or issues during old age. The needs, tasks, concerns, challenges, and activities of people during this age or stage of life is far too many that can be solved only through mindfulness alone. The elderly have needs by which they want to be heard, respected, tell their story, wish to express their thoughts, feelings, or deeds, confess, and do so many other things. They need protection against abuse or victimization. They find solace in performing so many other activities too.

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KEY TERMS AND DEFINITIONS

Euthanasia: Also called mercy killing, involves the painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.

Gerontology: This is a science for understanding the process of aging and the challenges encountered as seniors grow old.

Life Expectancy: This is a statistical measure of the number of years a person belonging to a particular population or nation can expectedly live.

Palliative Care: This refers to the care for the terminally ill and their families, especially provided by an organized health service.

Quality of Life: This is a measure of the degree to which an individual is healthy, comfortable, and can participate and enjoy life-events. It is a relative term depending on one's context, culture, and value systems.

Section 2

Clinical Application of Mindfulness–Based Interventions

Chapter 7

Mindfulness–Based Interventions and Parent–Child Relationship in Parents of Children With Autism Spectrum Disorder: A Brief Narrative Review

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ABSTRACT

Mindfulness has been noticed in the domain of psychology and neuroscience for the last two decades. With the plethora of studies based on interventional benefits of mindfulness-based techniques in various populations, the present review assesses if parent-child relationship studies effectively use mindfulness-based interventions on parents of children with autism spectrum disorder (ASD). The children are in the age group of below 5 years. The aspects of ASD, mindfulness techniques, and parent-child relationship importance are explored, albeit briefly. One study could be reviewed and was assessed for its treatment fidelity. The conclusion was based on the need to conduct more mindfulness-based intervention studies for the parent population of children in the younger ages and with ASD. This review recommends such replication of studies on the parents of the Indian subcontinent as well.

INTRODUCTION

Which is one of the most sought topics for personality training, soft-skills training, decreasing day-to-day stress in various populations, or for medical interventions? The answer is “mindfulness”. It is the buzz word around. Though many systematic reviews have been published recently (Cachia et al.,

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2016; Mak et al., 2018; Tercelli & Ferreira, 2020), interventions for parents of young children with autism spectrum disorder (ASD) have been reviewed sparsely. Given the burden on parents of children (Picardi et al., 2018), a narrative and critical review are warranted. It needs to highlight the advantages of mindfulness-based interventions on parents of children with ASD to assist in emerging studies from the Indian sub-continent.

Hence, this chapter focuses on reviewing studies on mindfulness-based interventions in assessing the parent-child relationship improvement in parents of children below five years with ASD.

BACKGROUND

What are ASDs?

ASD is one of the most prevalent and complex conditions of Neurodevelopmental Disorders (NDD). NDD is a set of complex disorders with varied conditions under their belt. Each condition is characterized by different symptomatology, presentation, and differs in the age of onset. However, it is unified in its origin (generally during the developmental period) and often presented with overlapping symptomatology in conditions. Their etiological basis is genetic in nature. NDDs give rise to disabilities in children due to many impairments noted life-long. Impairments occur in the children's developmental domains, such as social, pre-academic, motor, speech, language, self-help, cognitive, and play skills (Jeste, 2015).

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM, 5th ed., American Psychiatric Association, 2013), ASD is featured with deficits in social communication, interaction, limited, odd patterns of behavior seen early in the child's development. On an average across the globe, one in 160 children is diagnosed with ASD (World Health Organization, 2013). It is the most prevalent among the NDDs worldwide and in India (Arora et al., 2018). With increasing survival rates and lowered mortality rates of neonates, the number of children with the risk of NDDs has also increased (Global alliance for vaccines and immunization for India [GAVI], 2019; Zaka et al., 2018). A pooled prevalence rate of 0.09 is reported in the ages of 0 to 15 years in a meta-analytic review on the prevalence of ASD from India (Chauhan et al., 2019).

Why Choose Parents of Children with ASD for Interventions?

Parenting is the process of enhancing, promoting, and strengthening a child's physical, emotional, social, and intellectual development from infancy to early adulthood. As research has put it, it is the rearing of a child apart from the biological aspects of the child (Bornstein, 2019). The good quality of a parent-child relationship is therefore critical for a child's healthy growth.

Parenting children with a disability is stressful compared to parenting children with typical development (Davis & Carter, 2008). Since children born with developmental issues can become disabled later in life, they are treated as a perpetual crisis for the family. This is especially so for the parents, as the whole family's life changes significantly (Merrick et al., 2011). In the sixty seventh-world assembly, the World Health Organization (2014) has noted that families with ASD from low-resource places face multiple challenges such as social stigmatization, isolation, and discrimination, resulting in poor social support.

Professional help is generally and often provided to children with NDD. In contrast, parents of these children also have needs usually missed by the professionals (Head & Abbeduto, 2007). Fernandez-Carriba

and Bradsaw (2018) argue that parents are the natural therapists to their children. Hence, their emotional and cognitive needs would become highly pertinent to explore (Iyer & Venkatesan, 2020). Substantial evidence has been gathered on parent-related distress among the mothers and fathers of children with NDD (Woodman et al., 2014). Among Indian parents, challenges and struggles are reported of raising a child with ASD (Desai et al., 2012). Mothers of children experience stress, depression, anxiety, poor health, resulting in poor parenting skills and parent-child relationships (Dyken et al., 2014; Green et al., 2021). Additionally, parental well-being-related factors and the syndrome-related-variation in parental well-being are also researched widely (Head & Abbeduto, 2007). Despite the disabilities presented by the child, parents play a crucial role in influencing them towards higher-level skills (Mink & Nihira, 1986). Such parental influence is imperative for good family functioning. Better family functioning and development of a child with disabilities are achieved by positive, engaging, and cohesive family relationships and environments (Head & Abbeduto, 2007). Negative or disengaged interactions with a family result in a compromise of parental functioning (Hauser-Cram et al., 2001), thereby impacting the child.

Since the child's developmental period is acutely essential both for the children and parents, it would be imperative for the parent-child relationship to function positively.

What is Mindfulness?

Mindfulness is understood as the “awareness of one's internal states and surroundings” (American Psychological Association, n.d.). A search on PubMed medical search headings (MeSH) browser for the term “Mindfulness” yields a definition of “a psychological state of awareness, that practices and promoted this awareness, a mode of processing information and a character trait.”

Mindfulness-based therapy/interventions (Kabat-Zinn & Kabat-Zinn, 1997/2014) incorporate mindfulness techniques. Though inspired by the ancient Buddhist tradition of meditation, our current understanding of the technique and its applications to varied populations has stemmed from Western psychologists and other medical professionals (Shapiro & Carlson, 2017). Mindfulness encompasses both the process and the outcome in it. Mindful awareness and practice are aspects that define “mindfulness.” Finding one's whole being, facilitating the healing of self and others around is the path offered by mindfulness (Shapiro & Carlson, 2009). Williams and Penman (2011) suggest that the practice of the technique is successful when trained for a period, though not necessarily time-consuming, and could be done anytime or anywhere.

As this technique forays into medicine, neuroscience, and psychology (Kabat-Zinn, 2003), one of the critical contexts of its practice is noted in the “parenting” or “involving-children” situations. Raising and nurturing children with the present-day challenges could be considered a daunting task to many parents or caregivers. Mindfulness incorporates adopting non-judgmental, detached, yet curious attitudes to experiences, thereby inviting acceptance towards one's experiences (Creswell, 2017). Therefore, mindfulness and its techniques should be used and cultivated to enhance our ways of relating to our children and various parenting strategies (Kabat-Zinn & Kabat-Zinn, 2021).

MAIN FOCUS OF THE CHAPTER

To review mindfulness-based interventions for the outcome of the parent-child relationship in the parents of young children with ASD.

Mindfulness and Improvement in Parent-Child Relationships for Parents of Children with ASD

Developmental psychology has firmly entrenched the need for a secure and strong attachment style in children's growing and formative years. An early attachment is first observed with the primary caregiver parent and the child, more often (Kerns et al., 2000). Therefore, one of the most significant relationships is the parent-child relationship (Pinquart, 2013).

Many have targeted mainly the outcome of mental health in parents of children with ASD. Some interventions such as cognitive behavior therapy, positive psychology, relaxation therapy, acceptance and commitment therapy, and biofeedback (Da Paz & Wallander, 2017) have been explored in this context. Mental health of parents is crucial as child-parent outcomes have improved when maternal mental health, such as depression, is well-treated (Wickramaratne et al., 2011). This is especially true in the mothers of younger-aged children. Since the age at which ASD is identified is below 36 months (American Psychiatric Association, 2013), the nature of the parent-child relationship and interaction becomes acute and crucial. When meaningful parent-child relationships are enhanced, especially in parents of children with ASD or other NDDs, the motivation to seek therapy for the children also increases (Yoshimasu et al., 2012). Thus, an early start at creating a harmonious and positive parent-child relationship and parenting experience could prove beneficial.

Along the same lines of intervention studies, mindfulness-based interventions on parents and their children with ASD are emerging to be promising (Benn et al., 2012; Fernandez-Carriba et al., 2019). Benefits for the programs based on mindfulness to the parents of children with NDD are found to be an increase in cognitive functions, mainly the executive functions (Short et al., 2016), emotional and behavioral improvements (Ridderinkhof et al., 2018), stress, and depression (Lo et al., 2017), quality of life and reappraisal of positive acceptance (Rayan & Ahmad, 2016), apart from parent-child relationship improvements (Duncan et al., 2009).

Many variations of mindfulness techniques are used in parents of children with NDDs, such as Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990), Mindfulness-Based Cognitive Therapy (MBCT, Segal et al., 2002), Mindfulness-Based Childbirth and Parenting (MBCP, Bardacke & Duncan, 2014), Mindfulness-Based Parent Training (MBPT, Ferraioli & Harris, 2013), mindful parenting (Bogels & Restifo, 2014), Mindfulness-Based Positive Behavior Support (MBPBS, Singh et al., 2020).

A few instruments measuring the construct of parent-child relationships are the parenting sense of competency scale (Gilbaud-Wallston & Wandersmann, 1978), parent-child relationship questionnaire (Peisah et al., 1999), parent-child relationship inventory (Gerard, 1994).

Such evidence-based mindfulness interventions have paved the way for significant implications for parent-child relationships, especially for children at important transitional ages. Hence families focusing on the parent-child relationship become a perfect context to extend the concepts of mindfulness (Duncan et al., 2009). Parent-child interaction/relationship is vital to any parent and more so in children with NDDs.

METHOD

A step-by-step approach and the Participant-Intervention-Comparators-Outcome (PICO) framework (Schardt et al., 2007) were used for the present review. This framework for this review refers to the following terms:

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- P = Participants refer to the parents of children with ASD, where the children are less than five years
- I = Mindfulness-Based Interventions of duration involving 8-12 sessions
- C = Comparators were either a typical parent's group or other parents' groups with children of other clinical conditions, or no intervention or cognitive behavioral therapy or parent training group or the same subject condition
- O = Parent-Child improvement in interaction/relationships

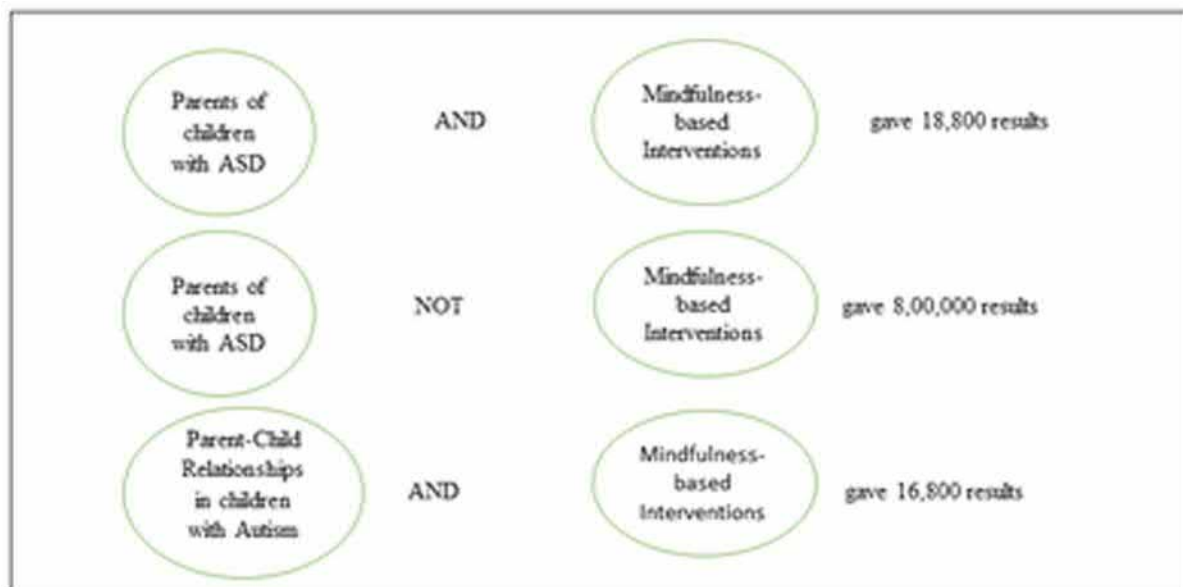
According to this framework, the research question raised in this review was, "Among parents of young children with ASD, compared to all other approaches, are mindfulness-based interventions effective for the improvement of parent-child relationships?" Accordingly, the search strategies and extraction of data from the articles were conducted.

Search Strategy

Boolean operators and fuzzy logic were used to search articles in search engines such as Google Scholar, PubMed, and JSTOR from 2011 to 2021. Table 1 shows the keywords used and the number of results obtained. On using fuzzy logic, the terms noted to have the highest yield of scientific papers in Google Scholar were:

Figure 1. Search words using fuzzy logic depicting its results

Note. The number of yields on using these particular search words in the search engines is provided in this figure.



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Table 1. The main key search words used in the search engines

Year	Search Engines	Keywords	AND/OR/NOT	Keywords	AND/OR/NOT	Keywords	No. of Results
2011 - 2021	Google Scholar	Mindfulness Interventions	AND	Parents	AND	Autism	17,700
	PubMed	Mindfulness Interventions	AND	Parents	AND	Autism	38
	JSTOR	Mindfulness Interventions	AND	Parents	AND	Autism	1406
	Google Scholar	Mindfulness-Based Interventions	AND	Positive Parent-Child Relationship	AND	Autism	4060
	PubMed	Mindfulness-Based Interventions	AND	Positive Parent-Child Relationship	AND	Autism	2

Note. The main keywords that were used to search and yield results are given in the table. The number of results changes as conjunctions of AND, OR and NOT is used along with the keywords.

Selection of Studies

On obtaining the articles from the search engines and hand searches, inclusion and exclusion criteria for the review are given in Table 2.

Table 2. Inclusion and exclusion criteria for the selection of studies

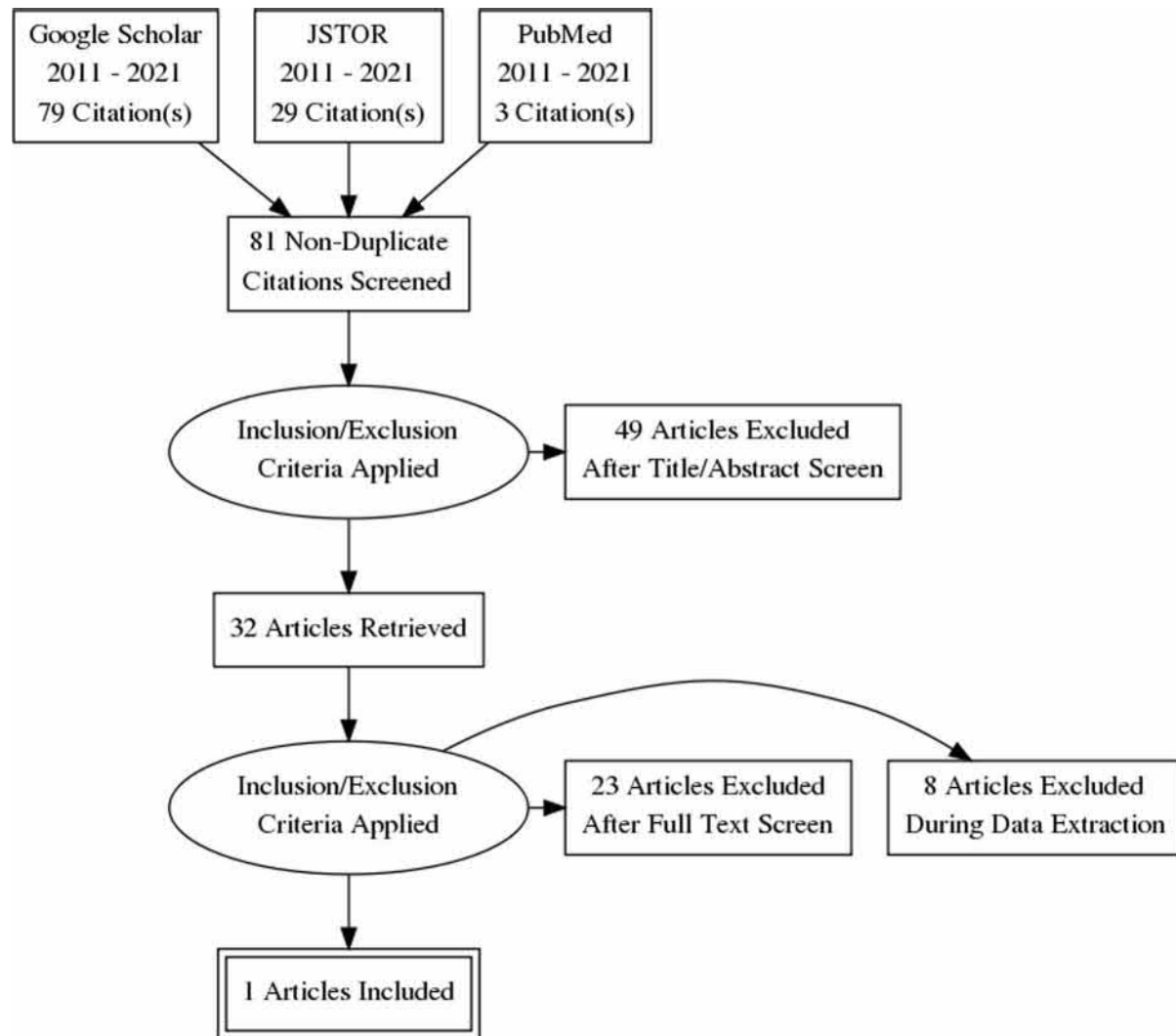
No.	Inclusion Criteria	Exclusion Criteria
1.	Only English language Journal articles and book chapters	Review and concept papers, research reports or opinion papers or in other languages
2.	Children less than five years only	Children above five years, adolescents, or adults
3.	Children with predominantly ASD or other co-morbidities associated with ASD	Children with other NDDs only apart from ASD, other mental disorders of childhood
4.	Intervention for parents of children with ASD only	Interventions for siblings/teachers/other caregivers of children with ASD
5.	Mindfulness-based Interventions only considered	Any other therapy/interventions
5.	Parent-child relationship as a dependent variable or a treatment outcome only considered	Other dependent variables or treatment outcomes

Note. The list is the criteria used to select the studies included in the review.

The PRISMA flow diagram (Moher et al., 2009) based on the criteria in table 2 is given in figure 2. This diagram was created using the PRISMA generator (Welson, 2021).

Figure 2. PRISMA flow diagram for the selection of studies

Note. The selection of studies in a flow diagram.



RESULTS

The following results were obtained on the selection of the studies using the inclusion and exclusion criteria. Only one study was obtained using the criteria in table 2. The study design, sample size, treatment/intervention details, and the result are given in table 3.

Table 3. Studies on mindfulness-based interventions on parent-child interaction in parents of children with ASD

Authors & Year	Study design	Age of the children (years)	Intervention type	Comparison Intervention	Sample size of parents	No. of sessions (weeks)	The measurement used for outcome	Findings
Weitlauf et al., 2020	Longitudinal RCT	<= 3	MBSR	P-ESDM	61	12	Parent-Child Dysfunctional Interaction from Parent Stress Scale	Significant improvement in parent-child interaction

Note: Studies on mindfulness training for parents of children with Autism spectrum disorder for the treatment outcome on the parent-child relationship. MBSR = Mindfulness-based stress reduction; P-ESDM = Parent mediated early start Denver model; RCT = Randomized control trial.

DISCUSSION

This review assessed to tabulate mindfulness-based intervention studies on the parents of young children less than five years of age with ASD. Only the parents were provided with the mindfulness-based intervention. The treatment outcome assessed was an improvement in parent-child relationship. With the inclusion and exclusion criteria used for this review, only one study could be selected. Nevertheless, many studies integrating mindfulness-based techniques in parenting techniques have been reported (Bogels & Restifo, 2014; Coatsworth et al., 2010, 2015, 2018; Duncan et al., 2015).

The present review has brought only one article fulfilling the inclusion and exclusion criteria. Weitlauf et al. (2020) compared two groups of parents in their randomized control trial study. One group had parents who got training in the Early Start Denver Model. The other group of parents focused on the Early Start Denver Model and MBSR training. The outcome data were taken at six points: baseline (before treatment), mid-treatment (6 weeks), end of treatment (12 weeks), and at 1-, 3-, and 6-months post treatment. The parent-child relationship has been measured by Weitlauf et al. (2020) using the parent stress index (Abidin, 1983). Parent stress index is a screening instrument that evaluates the parenting system. It identifies stress in child-parent characteristics and situational life stressors and assesses parent distress, child-dysfunctional interaction, difficult child, and total stress index. Parent-child dysfunctional interactions were observed to be improving significantly at all periods, during active treatment phases, and at follow-ups. This study shows the gains obtained from mindfulness-based stress reduction training in the relationships of parents and children with ASD.

Since many variations of mindfulness-based interventions are to be noted, the present review incorporated the assessment of treatment fidelity of the studies. This kind of assessment refers to aspects of treatment design, the providers' training, delivery, receipt of the treatment, and enactment of the treatment skills in the domain of health interventions are deemed necessary. Such assessment is needed to explain the findings and enhance replication (Borrelli et al., 2005) in other studies and settings. The results of the evaluation of fidelity are given in Table 4.

Table 4 only seeks to tabulate the treatment and design information of the results obtained in this review. Accordingly, the Weitlauf et al. (2020) study appears to have complied with the treatment design, provider credentials and training, and treatment delivery. These aspects are necessary for the results to be replicated and generalized to other settings.

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Table 4. Assessing treatment fidelity of the study/s

No.	Treatment Design	Yes/No
1.	Information about the Intervention model	Yes
	Length of contact sessions	Yes
	A module of the treatment	No
	Duration of each session	Yes
	Number of sessions (total)	Yes
2.	Provided Information about the comparison condition	Yes
	Length of contact sessions	Yes
	Number of sessions (total)	Yes
	Content of treatment	Yes
	Duration of sessions	Yes
3.	Credentials of the provider	Yes
4.	Theoretical model/clinical guidelines intervention is based	Yes
No.	Training Providers	Yes/No
1.	Description of how providers were trained	Yes
2.	Standardized provider training	Yes
3.	Measured provider skill acquisition post-training	No
4.	Described how provider skills maintained over time	No
No.	Delivery of Treatment	Yes/No
1.	Included method to ensure that the content of the intervention was being delivered as specified (e.g., manual, checklist, computer program)	Yes
2.	Included method to ensure that the dose of intervention was being delivered (e.g., record number of contact minutes)	Yes
3.	Included mechanism to assess if the provider adhered to the intervention plan (e.g., checklists, self-reports, an exit interview with parents)	Yes
4.	Assessed non-specific treatment effects	No
5.	Used treatment manual	Yes
No.	Receipt of Treatment	Yes/No
1.	Assessed parent's comprehension of the intervention during the intervention period	No
2.	Included a strategy to improve parent's comprehension of the intervention above and beyond what is included in the intervention	No
3.	Assessed parent's ability to perform the intervention skills during the intervention period	No
4.	Included a strategy to improve parent's performance of intervention skills during the intervention period (e.g., homework, handouts)	Yes
No.	Enactment of Treatment Skills	Yes/No
1.	Assessed parent's performance of the interaction skills assessed in settings in which the interaction might be applied	No
2.	Assessed strategy to improve parent's performance of the interaction skills in settings in which the interaction might be applied	No

Note. The study in this review is assessed against these skills to check on its fidelity. The table is adapted from "A new tool to assess treatment fidelity and evaluation of treatment fidelity across ten years of health behavior research," by B. Borrelli, D. Sepinwall, D. Ernst, A. J. Bellg, S. Czajkowski, R. Breger, C. DeFrancesco, C. Levesque, D. L. Sharp, G. Ogedegbe, B. Resnick, & D. Orwig (2005). *Journal of consulting and clinical psychology*, 73(5), p. 852-860. (<https://doi.org/10.1037/0022-006X.73.5.852>). Copyright 2005 by the American Psychological Association.

Since the results obtained are sparse in this present review, understanding the challenges of this domain becomes essential. Some challenges reported are small sample sizes, lack of active control groups, and difficulty obtaining a non-blinding outcome assessment. Furthermore, the use and measurement of formal and other informal mindfulness techniques during the active and post treatment phases in studies on mindfulness training warrants more input (Creswell, 2017). Another problem could be obtaining clinical service for the young children with ASD, which might take precedence for the parents. Recruitment of parents exclusively for the duration of mindfulness-based training could be challenging.

There is much support for mindfulness-based training helping parents improve their relationship with older children, adolescents, and adults with ASD (Benn et al., 2012; Fernandez-Carriba et al., 2019). Many of these studies have investigated the parent-child interactions using mindfulness-based interventions in these populations. For example, Rayan and Ahmad (2017) found that mindfulness-based interventions helped improve stress reappraisal in parents of children with ASD. Similar results have been obtained with mindfulness-based interventions on parents of very young children (2 to 5 years) with developmental delays (Lewallen & Neece, 2015; Neece, 2014). Again parent-child relationships have been explored in observational studies on mindfulness traits of parents of children with ASD (Corthorn & Milicic, 2016).

When the distress reduces, the parent-child relationship improves. Depression, anxiety, stress, perceived sense of incompetence in parenting, poor quality of life could be interrelated. They could become mediators of change in the parent-child relationship. In a similar systematic review on the quality of life among the parents of children with ASD from Asia, Vincent (2019) found positive reappraisal in parents as a mechanism of coping. This improved relationships in the family by providing a high sense of coherence. Relatedly, when maternal mental health is improved (Wickramaratne et al., 2011), the parent-child outcomes improve. Figure 3 provides a schematic representation of all the aspects that could improve parent-child relationships.

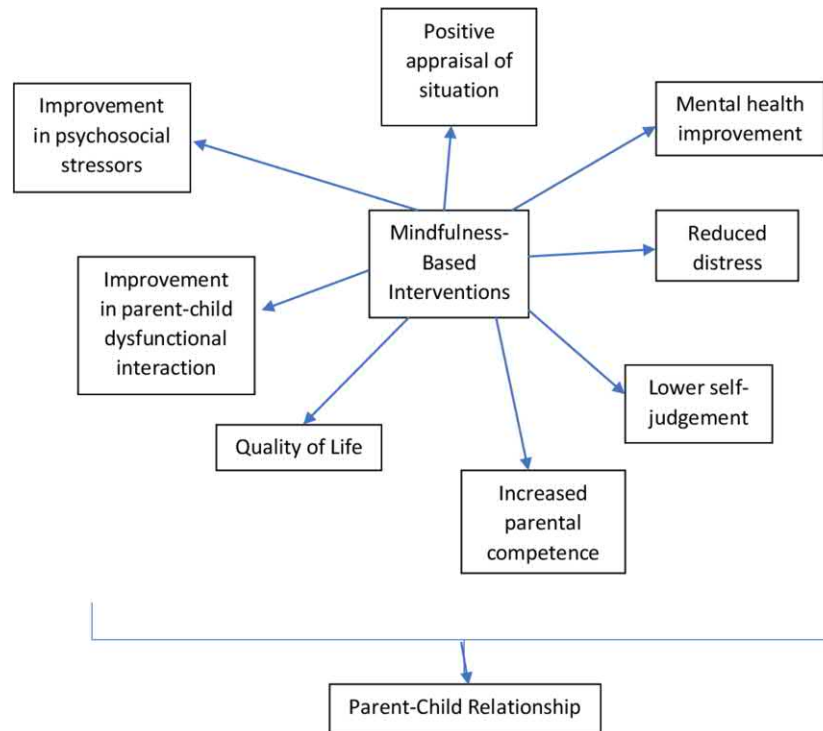
Neece (2014) suggests that as mindfulness techniques are continued to be used by parents in their interactions with children, they become conscious of their reactions, actions, and impulses. They pause before acting upon their actions, reactions, and impulses. Therefore, they slow down to carefully listen to their children or notice them in a relaxed and peaceful way. This could bring about a positive effect on their interaction and relationship.

CONCLUSION AND RECOMMENDATIONS

Mindfulness-based interventions and techniques to improve the parent-child relationship in the parents of children with ASD have been explored in many settings since the last decade. This chapter is a mere snapshot of the insufficient number of studies conducted on the parents of young children with ASD. Similar studies in our Indian population are much needed. Furthermore, such interventions could be directed towards older siblings and their parents of young children with ASD. The constructs of compassion, non-judgmental attitude, and acceptance towards the child with ASD could be explored. In an Indian setup, the use of other meditation techniques such as yoga, chanting, and recitation of spiritual texts or verses could be explored in conjunction with mindfulness-based interventions.

Figure 3. Various aspects to consider in mindfulness-based interventions and improvement in parent-child relationships

Note. The various mediators are possibly affecting the parent-child relationship in families with children with Autism Spectrum Disorder.



Thus, with so many factors present to be teased out to bring on the broad constructs, such as “mindfulness” and “parent-child relationships” into an empirical realm, much work is warranted. More so from our country, where more and more young children are diagnosed with NDD/ASD each year. Mindfulness-based interventions could help Indian parents cope with the struggles and challenges of raising a child with ASD and could enhance their relationship with their children.

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KEY TERMS AND DEFINITIONS

Autism Spectrum Disorder: A neurodevelopmental disorder that presents deficits or excesses in social communication, interaction, and behavioral patterns. Affects during the developmental period of five years and below.

Mindfulness: A state of being aware of one's thoughts, feelings, and emotions at a given time.

Mindfulness-Based Interventions: Interventions that use mindfulness techniques in a structured module.

Young Children: Children in the age group of five years and below only.

Chapter 8

Mindfulness–Based Interventions for Caregivers (Parents) of Children With Cerebral Palsy

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ABSTRACT

Families of children with disabilities often experience high levels of stress associated with taking care of a child with disability. The perceived stress by the caregivers may often lead to negative outcomes in day-to-day functioning for caregivers themselves as well as the child. Mindfulness as an element of consciousness has been acknowledged to promote positivity and well-being among individuals. It is a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations. This chapter focuses on the application of mindfulness-based therapies for caregivers (parents) of children with cerebral palsy. This chapter also entails in detail therapeutic techniques like Mindfulness-Based Stress Reduction (MBSR), its in-depth description, background, and applications as an effective approach for the intervention of caregivers.

INTRODUCTION

Mindfulness is a state of mind achieved by centering awareness of oneself on present moment, and at the same time addressing and accepting one's own thoughts, feelings, emotions, actions, sensory experience of the body as well as the environment that surrounds us. Mindfulness as an element of consciousness has been acknowledged to promote positivity and well-being among individuals. A non-judgmental practice of focusing our attention and awareness on the present moment, Mindfulness has its cultivation in the philosophies of Buddhism. Furthermore, it is also inspired from ancient Greek philosophy; Hinduism; Existentialism, and Naturalism in later Western European thought; Transcendentalism and Humanism in America (Brown et al., 2007). Originating mainly in eastern philosophy thousands of years ago, the ideas were borrowed by western societies in the late 20th century.

Mindfulness finds its core rooted in human experiences and the central activities of consciousness, that is, awareness and attention. Thus, mindfulness may be considered a combination of focused attention and enhanced awareness of present moment or current reality. The core characteristics of mindfulness are understood as open or receptive awareness and attention (Martin, 1997). The term mindfulness is an English counterpart of the word "Sati" from Pali language or "Smriti" from Sanskrit, borrowed from the concepts of Buddhism, reflecting the meaning 'remembrance, memory, reminiscence or recollection. Mindfulness, as a means of consciousness reflects "presence of mind" (Bodhi, 2000).

The pioneer of the contemporary concepts of mindfulness is John Kabat-Zinn, the founder of Stress Reduction Clinic, at University of Massachusetts Medical School in the late 1970's. Kabat-Zinn (2003) proposed that mindfulness encompassed the awareness emerging through paying attention purposefully and non-judgmentally, in the present moment to moment experiences. Kabat-Zinn brought the application of mindfulness practice into mainstream medical treatment and it was further encouraged that the employment of mindfulness will bring improved changes in physical and psychological symptoms and will also promote positive changes in behaviour and attitude towards health. The treatment procedure that was used with mindfulness as the core was established as Mindfulness Based Stress Reduction (MBSR) by Kabat-Zinn. Following this, researches were conducted to explore the applicability of Mindfulness based therapies which further became one of the central techniques used by practitioners to help clients reach "meta-cognitive awareness" or the awareness of the thought process (Segal, Williams & Teasdale 2012). Interventions designed on therapeutic approaches based on mindfulness have predicted relief and have been found efficacious in bringing about significant changes in well-being of individuals, as supported by various theoretical and empirical literatures.

Families with children having disabilities time and again experience increased level of stress owing to Emotional, Psychological, Physical, Social and Financial needs associated with taking care of a child with disability. The severity of stress may further be mounted if the nature of disability is severe, causing total to profound dependency on caregivers even for activities of daily living and survival. The perceived stress by the caregivers may often lead to negative outcomes in day to day functioning for caregivers themselves as well as the child, which may demand a need for intervention for caregivers' well-being.

The continuous process of caregiving for a family member with Cerebral Palsy often contributes to chronic stress, which can further have significant detrimental effects on various aspects of the lives of caregivers.

Cerebral Palsy

Cerebral Palsy is a neurological disorder of movement caused due to malformation or damage in one or more areas of the developing brain, most often before birth. It may include a group of conditions that affect motor activities (movement), posture, muscle tone and coordination, and body balance. In addition, it may also affect gross motor skills, fine motor skills, and oral motor skills. ‘Cerebral’ represents the brain while ‘Palsy’ refers to paralysis, weakness or loss of muscle control (Taylor, 2006). It is a permanent condition often leading to increased impairment, cognitive deficits, behavioral changes, and inability to function independently, thus eventually requiring round-the-clock caretaking by family caregivers.

As defined by the Surveillance of Cerebral Palsy Europe (SCPE), Cerebral Palsy is a collection of permanent disorders affecting movement and posture, causing limitations in activities, caused due to non-progressive changes in the developing fetal or infant brain.” Individuals with Cerebral Palsy may have problems such as weakness of muscles, difficulty in maintaining balance, stiffness, awkward posturing, which may vary from mild level of impairment to severe (Sharma & Rai, 2020).

As a collective term, Cerebral Palsy incorporates a cluster of symptoms and impairment that may lead to loss of functionality as well as disability. The conditions are interrelated but each individual with Cerebral Palsy may go through experiences and symptoms that are unique to the person. Since Cerebral Palsy is a neurological condition it cannot be cured completely, that is, it is not completely treatable. However, individuals with Cerebral Palsy can reduce the impact of the condition through treatment methods focusing on therapeutic intervention, specialized education, and use of advanced assistive aid which may help the individuals in coping with the condition as they grow up and may bring about noteworthy changes. Treatment may bring about significant improvement, but it does not lead to a permanent cure.

Caregiving often encompasses numerous biopsychosocial problems, which may include mental health concerns such as stress, depression and anxiety; emotional instability, deterioration in physical health, impaired immune function, social isolation and stigmatization (Ferrara et al., 2008; Pinquart & Sörensen 2007). The resultant chronic stress may have detrimental impact on the well-being as well as health of caregivers. It is becoming increasingly essential to design and promote interventions to help caregivers manage the stress associated with parenting in relation to Cerebral Palsy (Whitebird, 2013) and therefore it is important to understand in detail what is Cerebral Palsy and what are the challenges associated with it.

Caregivers of Children with Cerebral Palsy

A caregiver can be understood as an individual who attends to the needs or concerns of a person with any short- or long-term limitations resulting from illness, injury or disability (Collins & Swartz, 2011). In the context of Cerebral Palsy, caregivers have to play long-term multifaceted roles in the caregiving process (Chiluba & Moyo, 2017).

An individual with Cerebral Palsy experiences numerous challenges in different stages of life including functional limitations, difficulty in self-care and activities of daily living, accompanied by behavioural problems, seizures, cognitive impairment, sensory limitations, social isolation and emotional instability which remarkably affects their quality of life as well as increases their dependency on the caregivers. It is a challenging condition for the person with Cerebral Palsy, and is equally tasking for the family members and caregivers (Bajraszewski et al., 2008).

MENTAL HEALTH CONCERNS OF CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY

Caring for a child with Cerebral Palsy can have a significant impact on the family caregivers and their well-being. A large body of research reflects that parents of a child with any disability or psychiatric illness are likely to experience increased stress regarding parenting, compared to parents of healthy developing children (Sanders, John, Morgan 1997, Dowdell 1995). Additionally, the impact of stress varies with the nature and severity of the disorder across different age groups (Pousada et al., 2013). Likewise, the same disorder may exhibit diverse and unique challenges to the caregivers of the individual with Cerebral Palsy.

The caretaking process of a child with Cerebral Palsy or other disabilities demands extra efforts by parents, as the child usually requires additional care and attention (Gupta, 2007). Day-to-day family life and family relationships are likely to be seriously affected. Additional care-taking responsibilities like problems in interactions between parent and child, sibling and child, and increased levels of marital discord have also been reported (Vicentic et al., 2016). Family structure and economic stability are also important contributors. Khanna et al., 2015 suggests that an increased financial burden and social challenges have been observed among the caregivers of children with Cerebral Palsy as compared to other disorders. Perpetually having a child with developmental disabilities leads to increased financial responsibilities on the caregivers. These expenditures encompass health related expenses viz. medicinal requirements, availing physiotherapy, occupational therapy, speech therapy, special education and rehabilitative services. Often the child along with caregivers have to travel in order to avail these services which further adds to the economic burden. Limited or insufficient support by the government towards the above mentioned services further adds to the financial stress on the caregivers (Goudie et al., 2014; Vadivelan et al., 2020)

A greater challenge stands in the nurturing and growing process of the child where parents face difficulty in developmental stages of the child, in activities of daily living like eating, bathing, clothing, toilet training, searching for suitable schooling options, helping the child adapt to various social roles, and planning an independent future for the child. Though caregiving is a routine part of being a parent, but the role takes on a completely different implication when a child experiences impairment, functional limitations and a probable long-term dependence on the caregiver. One of the main challenges for parents is to manage their child's chronic health condition effectively and fit in this role with the necessities of everyday living. The social stigma faced by the caregivers adds on to the difficulties as on one end child may be exposed to rejection, mockery, unequal acceptance at various levels of the society due to a lack of awareness and years of prejudice, while the parents on the other end themselves may face insensitive remarks and rejection and may also be blamed for the condition of the child. Besides this many a times, parents also blame themselves for something they may or may not have done during the pregnancy or birth of the child (Sharma & Rai, 2020).

Eventually, caring for a child with complex disabilities at home might become overwhelming for caregivers. The provision of such care may establish unfavorable experiences causing a wide range of physical, psychological, emotional, social and financial problems leading to an increased responsibility on the caregivers making them emotionally, mentally, and physically vulnerable to various chronic health conditions like hypertension, diabetes, heart disease, as well as psychological conditions like distress, care giver burden, anxiety or depression (Sharma & Rai, 2020). The impact on the health of the caregivers can be observed through indications like frequent feelings of irritability, resentment, anger;

regular fatigue, physical and emotional exhaustion, disturbed appetite and sleep patterns, frequent mood swings, decreased interest and lack of motivation in everyday tasks or even leisure activities, neglecting one's own health physically, nutritionally and emotionally, withdrawal from social activities and feelings of sadness, helplessness and hopelessness. (Goudie et al., 2014; Ones et al., 2005; Raina et al., 2005; Vadivelan et al., 2020)

Cerebral Palsy in the child has been found to be linked to high prevalence of anxiety and depression among parents. The primary factors that exhibit an important role in the occurrence of mental disorders among parents include the severity of illness in the child, degree of functionality and dependency of the child, time spent in child's care-taking and socioeconomic conditions (Barreto et al., 2019).

It is also important to understand that while a child's disability affects a parent's condition, consequently, the mental health issues of parents may play an etiological role in child's disability. For instance, depression in a parent may contribute to separation anxiety in the child (Heiman, 2002). Furthermore, multiple genetic, neurobiological, psychosocial and environmental factors play a contributing role in the development of disorder in the parents as well the child; at the same time, the sibling of the child may also be vulnerable to the disorder. Studies suggest that risk of Cerebral Palsy increases with the degree of relatedness among the family members (Richer et al., 2011).

The distress and symptoms may fluctuate and increase or decrease with circumstances, but at the same time it is important to identify the severity and chronicity of these symptoms experienced by the caregivers. Henceforth it becomes imperative to address the mental health needs of the caregivers and provide them with suitable intervention facilities for improved well-being of the caregivers as well as the children having Cerebral Palsy.

MINDFULNESS-BASED INTERVENTIONS FOR CAREGIVERS

The psychosocial impact of taking care of a child with a disability, exposing caregivers to numerous physical and mental health conditions makes it a requisite to provide therapeutic interventions to cope with the distress caused. Mindfulness based intervention techniques have been found efficacious in the treatment of a spectrum of mental and physical disorders, as well as have been becoming increasingly popular owing to their wider applicability. The concept of mindfulness argues that the improvement of the two components of consciousness that is awareness and attention, catalyze good health and well-being in an individual (Brown & Ryan, 2003).

Likewise, mindfulness based therapies have been perceived to be effective and helpful in various mental health problems like depression, anxiety, addiction, stress as well as other mental health conditions which may emerge due to various physiological conditions (Brewer et al., 2010). On the basis of the principles of mindfulness meditation, different therapeutic approaches began to develop during late 20th century. Initially the therapeutic focus was groupbased approaches which later shifted to individual therapy modes. Mindfulness Based Stress Reduction (MBSR) pioneered by Kabat-Zinn in 1982, inspired the emergence of other approaches fashioned on the principles of mindfulness; these therapies majorly included Dialectical Behavior Therapy (Linehan, 1993), Acceptance and Commitment Therapy (Hayes et al., 1999) and Mindfulness-Based Cognitive Therapy (Segal et al., 2002). The mindfulness-based approaches, supported by an increasing body of evidence of efficacy are accounted in various literature reviews in the field (Bishop, 2002; Blennerhassett et al., 2005; Hayes et al., 2006).

Mindfulness based therapies initially emerged as a treatment modality for clinical population (individuals with physical conditions and psychiatric illness) with the premise that mindfulness will cultivate insight about physical, psychological and behavioral symptoms and thus facilitate enhancement well-being. Later the applicability of mindfulness therapies expanded to general population with minor to chronic physical and mental health related concerns. All mindfulness based therapeutic modalities are multidirectional applying the use of wide range of methods to augment mindfulness. The mindfulness approaches employ techniques that promote an attitude of acceptance of various experiences relevant to oneself, which will further facilitate the potential of a person to prolong awareness and attention to present moment, especially when it engages the individual emotionally and/or cognitively. The core feature of the therapy procedures is the expansion of a uniform, continuous awareness of the current behavior and experiences. The applicability of mindfulness based interventions for caregivers of children with Cerebral Palsy can further understood through a deeper understanding of the therapies as elaborated below.

Acceptance and Commitment Therapy (ACT)

Acceptance and Commitment Therapy was designed by Hayes et al. (1996) while training patients to dispose of dysfunctional thoughts and concentrate on awareness and acceptance of thoughts, feelings and emotions; to identify them without struggle, to be non-judgmental, and to concentrate on overt behaviours that direct towards positive conclusions. ACT emphasizes on observation of thoughts and feelings without reacting, that is, awareness of thoughts without an attempt to alter them; while at the same time the process helps in detachment from these thoughts. When the thoughts and emotions are separated from each other, the feelings attached to it subside and the person can thus rationally evaluate the situation and choose more adaptive thoughts and emotions. In ACT modality an individual is trained in mindfulness exercises in order to cultivate a greater sense of awareness of emotions, and to focus on staying in the present moment. The therapy can be implemented in both individual and group settings and the duration of the therapy varies from one day to sixteen weeks.

The application of ACT for parents of children with disabilities and developmental disorders have been found fruitful in producing positive and long lasting changes in mental health conditions of the parents. Studies reflect that providing ACT training to parents has shown significant decrease in stress level and depression, improved coping mechanism, as well as positive changes in well-being of the parents and the children. The ACT procedures further enhanced “psychological flexibility” indicating long lasting impact of the therapeutic procedure (Hayes, 2006; Reid et al., 2016)

Mindfulness-Based Cognitive Therapy (MBCT)

Mindfulness-Based Cognitive Therapy was developed on the grounds of Kabat-Zinn’s Mindfulness-Based Stress Reduction. MBCT was first established by Segal et al. in 2002, initially as a therapy for recurrent depression. The theoretical foundation for the development of MBCT is inspired from cognitive vulnerability model of recurrent depression which proposes that the relapse and (or) recurrence of an episode of depression increases with increased in the numbers of previous episodes of depression.

MBCT combines the modalities of Cognitive Behavioural Therapy and Mindfulness. The techniques used, helps an individual to develop an insight of the environmental stressors, recognize the negative thoughts associated with it and learn how to change the attitude associated with these negative thoughts, using mindfulness meditation and cognitive techniques. While major life stressors are a stronger predictor

of onset of depression, low mood and dysfunctional thinking patterns are considered better predictors of recurrent episodes of depression. As proposed by John Teasdale, theory of differential activation hypothesis maintains that repeated association between dysphoric mood and negative thinking patterns during episodes of depression lead to a higher likelihood of reactivation of dysfunctional thinking in subsequent low mood states. The process of MBCT helps in breaking this association between dysphoric mood and negative thinking patterns

The process involves straightforward instructions, like mindfully walking or eating. It emphasizes on sitting meditation along with movement-based meditation which enhances attention, sensory awareness, metacognitive skills and awareness of own behavior in everyday life. Mindfulness exercises by focusing on negative moods eventually promotes self-care by helping the person develop control on thoughts and develop a capacity to understand the sad mood states as well as focus on the present-moment condition. The theoretical as well as practical framework of MBCT explains its suitability for application in therapeutic intervention of caregivers of children with disability as it emerges as one of the most efficient therapy for distress and depression.

Mindfulness-Based Stress Reduction (MBSR)

Mindfulness Based Stress Reduction is a novel therapy grounded on the principles of mindfulness meditation embedded in philosophies, theories and psychology of the eastern world, emphasizing the prominence of experiential and meditative practice as a channel for personal growth and transformation. The curriculum of MBSR developed by Kabat-Zinn is based on the systematic and intensive training in mindfulness meditation and mindful hatha yoga. The program focuses in equipping the participants to learn to practice, integrate and apply mindfulness in their everyday lives. MBSR aims to build a structured pathway to relieve distress and improve wellbeing of individuals facing a host of challenges emerging due to numerous psychological and medical conditions. MBSR employs sitting meditation and movement-based meditative practices designed to enhance continuity and sustainability of attention, sensory awareness, metacognitive abilities as well as awareness of one's own behavior.

The MBSR curriculum, which is rooted within the framework of Mind-Body and Participatory Medicine, emphasizes on the experiential development of both “formal” as well as “informal” mindfulness practice as a source of acquainting self with awareness (mindfulness). The acknowledgement of an instinctive and innate awareness can be understood as the fundamental for the growth of positive health behaviors, resilience and a supreme sense of wellbeing that can be effectively nurtured and trusted upon across the adult life span.

The structural framework of Mindfulness Based Stress Reduction program endorses the conduction of therapy in group setting. Henceforth it is mostly practiced as a group-based therapy in which the program comprises of a series of classes covered in a period of eight weeks. The group members are tenderly and progressively trained to become more aware and approachable to their moods, feelings, and thoughts. The sessions gradually progress from developing awareness in the beginning to a step-by-step amplification of mindfulness based meditation during the eight week period. The group members are continually taught several cognitive techniques like breathing, writing etc, for an enhanced management of the thinking patterns.

The present chapter here onwards provides an elaborative emphasis on application of MBSR for Caregivers of individuals with Cerebral Palsy.

MINDFULNESS-BASED STRESS REDUCTION FOR CAREGIVERS

Mindfulness Based Stress Reduction have been found efficacious in management of numerous mental health related conditions and consequently MBSR program can effectively provide assistance and relief to caregivers by offering systematic strategies for self-care and considerable improvement in physical and mental health. Various techniques that can be utilized for intervention of caregivers of individuals with CP are discussed below:

Techniques used in Mindfulness Based Stress Reduction

Body Scan Meditation: The body scan technique is the base of the lying down practices employed in MBSR. This form of meditation has shown great efficacy in healing and have been proven to be extremely powerful. It involves systematically focusing attention to different parts of the body, customarily beginning from the toes of the left foot and then moving through the entirety of the foot towards the entire leg and then to all the other regions of the body. While practicing the body scan, the individual is supposed to systematically and intentionally move attention throughout the body, attending to the various sensations in the different regions. The aim of the entire exercise is to maintain a continuous awareness of the sensations of the body, focusing complete attention in the present moment.

Yoga: The practice of yoga, a powerful form of bodyoriented meditation, is applied in conjunction with mindfulness techniques. The techniques of yoga enhance musculoskeletal strength, flexibility, balance and posture; it also boosts inner calmness and relaxes and energizes. With continued training, an individual can adapt to paying close attention to the changing bodily states and its effects and learn to cultivate an insight of stress, tension or pain and thus develop an attitude of mindfulness.

Sitting Meditation: This technique involves practicing mindfulness by sitting still and focusing on body sensations, breathing, physical sensations and environment, non-judgmentally and in the present moment. Verbal Cues or sounds may be used to further enhance the process of attention and mindfulness.

During the course of meditation, an individual is not supposed to inhabit on the thoughts, feelings, or memories that one experiences at that existing moment, rather, the individual is supposed to only notice them and let them pass away. For instance, many techniques include noticing feelings like pain or anxiety and then turning the attention to the thoughts about those feelings.

Walking Meditation: Mindful walking emphasizes on slow walking and noticing every movement while taking steps. As an individual becomes more aware and mindful of movements, gradual shift is made to noticing and paying attention to physical sensations, thoughts and emotions during the process of walking.

Unlike sitting meditation, while walking an individual's eyes are open, the body is either standing or moving around, which needs coordination and interaction with the world outside. As the body is moving, it needs less effort to be mindful of the body sensations and remain attentive in the present moment; for this reason, many people find walking meditation easier than seated meditation (Kazmi et al., 2020).

Mindful Eating: Mindful eating emphasizes on being aware of what an individual is eating. It involves eating slowly, savoring all the flavours, eating in silence, not paying attention to any diversions like television or mobile phone, and knowing what one eats.

Steps of Mindfulness Based Stress Reduction

The MBSR curriculum is followed for a period of eight weeks usually. The session takes place once a week and each session lasts for a duration of two and a half hours to three hours.

Module 1: Mind-Body Medicine/Self-Regulation

It emphasizes on development of a learning contract with the participant. The process includes establishment of a theoretical framework of mindfulness included within the range of Mind-Body and Participatory Medicine and the self-regulatory skills, in context of the individual's stressors. Progressively, the individuals are experientially introduced to mindful breathing, mindful eating, some standing yoga stretches and body scan meditation. Practice work for home is assigned using initially the body scan meditation to make the participants familiar to mindful awareness of the body. The aim of the session is to build trust within the group, develop the feelings of belongingness and community, help individuals to apply mindfulness gradually in everyday life, and develop possibilities to begin exploring and acknowledging alternative perspectives

Module 2: Perception/Creative Responding

This session includes experiential mindfulness training and skill development, further helping in reflection on stress causing beliefs and role of perception and habituation in the evaluation of stress. The session focuses on one's own responsibility in positive development of adaptive behaviour patterns for betterment of mental and physical health. It helps in enhancing relationship with self, others and the world. Short periods of sitting meditation are introduced and body scan practice is home assigned for another week.

Module 3: The Pleasure and Power of Being Present

The session focuses on helping the participants become aware of the present moment and clear the mind, to help them feel more connected to self, others and the world. Participants are made to practice distinct yet interconnected prescribed mindfulness practices including mindful hatha yoga ending with a brief body scan, sitting meditation and optional walking meditation, at least for ninety minutes. This is followed by reflection of participants' experiences within the class and assigned home practices. It typically covers discussion on insight and challenges faced in formal practice and in integration of mindfulness into routine life.

Module 4: The Shadow of Stress, Exploring More Effective Means Responding to Stressful Situations

Participants engage in a combination of the hatha yoga, sitting meditation and body scan which was being practiced at home in the preceding three weeks. The focus in this session is on the improvement of concentration, competence to train and redirect attention, and ultimately, the systematic widening of the field of awareness. The target is to understand how stress is dangerous and affects health, relationships, mind and body, and how an individual can work to change it.

Module 5: Identification Conditioned/Self-limiting Behaviors (Option: Respond vs. React)

This session is the halfway point in the coursework of the therapy. The key element of this session is to expand the participants' capacity of stress tolerance and rapid recovery from the stress when it occurs. Further emphasis is on crafting strategies to attend to different physical and mental perceptions and to utilize this insight to purposely mediate in previously conditioned, maladaptive habitual behaviors and select more efficient mindfulness mediated stress responses.

Module 6: Mindful Communications

The session focuses on persistent growth of “transformational coping strategies”, that is, behaviour as well as attitudes which enhance resilience and positive coping strategies. Participants are further engaged in a comprehensive exploration of stress as a component of a communication, specifically involving challenging interpersonal interactions. The session orbits around utilization of previously learned skills and techniques of MBSR in different areas of communication.

Silent Retreat

This is a 5 hour long session that emphasizes on assisting participants to effectively use mindfulness practices across multiple situations of their live, beyond the boundaries of the program. It promotes cultivation of a sense of moment to moment awareness and openness to new experiences, pleasant as well as unpleasant, using mindful attention.

Module 7: Keeping up the Momentum

Silent retreat is reviewed and discussed in this session. The session intends to sustain the discipline of daily mindfulness practice, preferably without using recorded instructions, and further encouraging individuals to acknowledge and accept changing circumstances in their lives and to ask themselves questions like: “What is called for today/now?” or “What do I need to take care of myself now?”

Module 8: Wrap Up

The session involves a discussion on lingering doubts and enquiries regarding employment of varied mindfulness practices. The program curriculum is revised and reviewed, laying emphasis on the strategies learned and polishing the skills crafted during the entire program. The session further comprises of a fulfilling closure by graciously welcoming the termination of the program as well as the beginning of living one's life with mindfulness. Participants are also provided with an opportunity as well as encouraged to communicate to the group members, like they did in the past.

The application of MBSR might bring about the following transformation in the caregivers, promoting a positive health and well being.

- Participants are motivated to mindfully observe their thoughts, emotions and behavioral reactions, and accepting them without judgment or surrendering to the vicious cycle of stressful thoughts

Mindfulness-Based Interventions for Caregivers (Parents) of Children With Cerebral Palsy

- The practice of mindfulness empowers in responding to external and internal stimuli in a more reflective and a less reactive and impulsive way.
- Mindfulness training improves the range of attention and self awareness and utilization of coping skills through enhanced observation and self- reflection (Baer 2003).
- It helps in decreasing ruminative or repetitive thoughts about past or future events by focusing on awareness and acceptance of current moment (Borders et al., 2010; Jain et al., 2007).
- The skills help caregivers in effective management of their stress responses to the long-term challenges of caregiving (Li & Yuan, 2016).
- The approach of mindfulness training emphasizes on the fact that families and communities are architects of health and health care and not just consumers. Consequently, it empowers families and communities in creating health interventions for all.

Henceforth, it can be inferred, on the basis of theoretical underpinnings and various studies that nurturing a child with cerebral palsy (CP) produces multitude of challenges for the caregivers and family. A family with a special needs child is more prone to depression, suicide, financial strain, relationship challenges, divorce, and various other adverse psychosocial conditions. Owing to these factors, parents of children with cerebral palsy often experience excessive levels of stress. Along with this, parental mental health concerns may have an etiological role in contributing to the child's difficulties; for instance, a depressive illness in a parent may contribute to separation anxiety in a child (Heiman, 2002). Moreover, parents' functioning can also be affected by behavioral aspects of the child with CP. This emphasizes the importance of the development of specific interventions that support the family as a whole (Ketelaar et al., 2008). The behavioral problems of the child are important predictors of well-being of the care givers as it affects family functionality. Furthermore, the influence of social support provided by extended family, friends, and neighbors also have a direct impact on the health of caregivers (Raina et al., 2005). It is further suggested that caregivers of children with CP are at a greater risk of poor psychosocial well-being and lower satisfaction with life, in contrast to parents of children without a long-term health condition (Cheshire et al., 2010). Thus it creates an increased need to provide interventions for parental well-being.

It is foremost important to formulate strategies and techniques to support the daily functional activities as well as stress management of caregivers, in an attempt to optimize caregiver physical and psychological health. Thus, therapeutic approaches that are family centered, and not simply provide technical and short-term rehabilitation, should be developed and promoted, providing parents with effective strategies to manage their child's condition and have a potential to change caregiver health outcomes (Cheshire et al., 2010).

The efficacy of Mindfulness Based Stress Reduction has been reflected in numerous studies further endorsing its effectiveness in the management of concerns of caregivers. MBSR has been studied as an alternative therapy for stress and symptom management in a wide range of chronic medical conditions, including Pain (McCracken et al., 2007), Cancer (Ledesma & Kuman 2008; Lengacher et al., 2009), Rheumatoid Arthritis (Pradhan et al., 2007), solid organ transplant (Gross et al., 2004; Kreitzer et al., 2005), Severe Psoriasis (Kabat-Zinn et al., 1998), Insomnia (Gross et al., 2004) and diabetes (Rosenzweig et al., 2007, Whitebird et al., 2009). Furthermore, it has also been applied on caregivers of children with disability (Minor et al., 2006) which has reflected promising results (Kuyken et al., 2008). Consequently, studies of MBSR show decreases in physical and somatic symptoms; improved functioning; and reduced stress, anxiety, and depression (Fjorback et al., 2011; Grossman et al., 2004; Hofmann et al., 2010; Shapiro et al., 2003).

Furthermore, it is indicated that mindfulness meditation practices, like awareness of one's breathing, the body scan, walking and sitting meditative techniques and kindness meditation has helped caregivers in inculcating feelings of compassion for oneself; It has led to increased levels of mindfulness, well-being, improved awareness of one's own health and application of healthier coping methods. The changes found were more long lasting and applicable in day to day life in comparison to other intervention techniques. Thus, a range of supporting evidence highlight that the eight- week mindfulness course when applied for caregivers of children with disability leads to reduction in stress, improved well-being and transformational changes in their lives.

LIMITATIONS

A growing body of evidence suggests the applicability and successful implication of Mindfulness Based Stress Reduction for a range of conditions, yet there is a dire need of an increased number of supporting research work to broaden the scope of MBSR, specially its applicability for caregivers as well as children with disability. Furthermore, MBSR is a group-based approach and hence applying it as an individual therapy stands as a challenge and can be explored as a future outcome.

CONCLUSION

Mindfulness based therapies are a new modality and are emerging as a growing therapeutic approach with promising results in the treatment for a range of medical and psychological conditions. The core component of mindfulness, which advocates focusing attention and awareness in the present moment as quoted by Prof S. Z. H. Zaidi, "Do not recall past with tears and visualize future with fears rather concentrate on present with cheers", gives a fresh hope and belief to an individual in overcoming the hardships of different life situations.

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KEY TERMS AND DEFINITIONS

ACT: Acceptance and Commitment Therapy was designed by Hayes et al. (1996) while training patients to dispose of dysfunctional thoughts and concentrate on awareness and acceptance of thoughts, feelings, and emotions; to identify them without struggle, to be non-judgmental, and to concentrate on overt behaviours that direct towards positive conclusions.

Disability: A disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions).

MBCT: Mindfulness-Based Cognitive Therapy is a psychological intervention designed to reduce relapse in recurrent major depression. It incorporates as a central component mindfulness training.

MBSR: Mindfulness-Based Stress Reduction (MBSR) was developed by Dr. Jon Kabat-Zinn. It is a therapeutic approach that combines meditation and yoga.

Meditation: Meditation is a practice where an individual uses a technique—such as mindfulness, or focusing the mind on a particular object, thought, or activity—to train attention and awareness and achieve a mentally clear and emotionally calm and stable state.

Yoga: Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and science of healthy living. The word ‘Yoga’ is derived from the Sanskrit root ‘Yuj’, meaning ‘to join’ or ‘to yoke’ or ‘to unite’.

Chapter 9

Mindfulness–Based Interventions in Attention Deficit Hyperactivity Disorder

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is the most prevalent neurodevelopmental disorder in children and adolescents. It is marked with deficits in behavioral symptoms of hyperactivity/impulsivity along with cognitive deficits in the domain of attention, self-regulation, and executive function. Mindfulness-Based Interventions (MBI) have come up as an intervention of choice for various psychological disorders such as anxiety disorder, depression, substance abuse, and eating disorder. Mindfulness at its core is paying non-judgmental attention to the present moment. Despite the robust evidence for both of the treatment modalities available, the cognitive symptoms of ADHD still progress towards adulthood affect the individual's achievement and overall psychosocial adjustment. A number of recent studies have found preliminary evidence about the effectiveness of MBI as an adjunct treatment in ADHD. The chapter will discuss the evidence-based interventions that incorporate mindfulness.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common developmental disorder of childhood, with a tendency to persist into adulthood. Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5), describes ADHD as a disorder of inattention and/or hyperactive/impulsive behaviour which is inconsistent with developmental level and also causes impairment in socio-occupational functioning (Chimiklis et al., 2018). For a diagnosis of ADHD, it is necessary for symptoms to be present prior to age 12, persist for at least six months with significant impairment in socio-occupational functioning.

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The worldwide prevalence of ADHD is 5.29% as estimated by a systematic review and meta-analysis (Polanczyk et al., 2007). Children or adult with ADHD generally present with following clinical features:

Hyperactivity: Hyperactivity implies the inappropriate excessive motor activity including restlessness, fidgeting, and appearing to be “driven by a motor.” These behaviours are often first noticed in the initial years of development, but can be normal phenomenon before age four. The level of hyperactivity usually decreases with age, however, the inner sense of restlessness may continue into young adult life. Children with ADHD display sustained levels of high activity in different settings such as home, school, and playgroup.

Impulsivity: Impulsive actions occur without forethought about consequences and may be associated with desire for immediate rewards or to avoid delay. Impulsivity might be evident when the child engages in dangerous activities, yells out in class, or interrupts or intrudes others during games or conversation. Symptoms of impulsivity can persist into adulthood, even after hyperactive symptoms have diminished.

Attentional Difficulties: Inattention includes difficulty sustaining focus, poor organizational skills, and being easily distracted by extraneous stimuli (Posner, 1995). The symptoms of inattention often become prominent in primary school when the child is approximately 8 to 9 years old. Attentional difficulties are commonly seen in routine settings wherein the children with ADHD must sit and do repetitions task with low levels of reinforcement and external motivation.

Assessment Scales for ADHD

Commonly used outcome measures in most of the studies are described in table 1.

Table 1. Detailed description of rating scales for ADHD

Name of rating scales	Author/year	Age range	Items	Description
Behaviour assessment system for children (BASC-2)	Kamphaus, 2014	2 years - 21 years	161	Integrated assessment system that includes various forms such as parent form, teacher form, self-report etc. It utilizes variety of methods and modes to gather information about a children's emotions and behaviour to generate an interpretative profile
Connors - 3P and Connors 3 -SR	Connors, 2008	6 years – 18 years	108	It assesses ADHD and common co-morbid problems in children and adolescents as present in different settings such as home, social, and school
Youth Self Report (YSR)	Ivarsson et al., 2002	11 years - 18 years	112 items	Self-report measure designed for adolescents to assess the problem behaviour and behavioural competency
Child behaviour checklist (CBCL)	Achenbach, 1999	2 years -18 years	113 items	Most widely-used parent report measure in child psychology for evaluating the problem behaviours and emotional problems in children and adolescents

MINDFULNESS-BASED INTERVENTION IN ADHD

Mindfulness-Based Intervention (MBI) incorporate the components of non-judgemental attention to the present moment, based on Buddhist tradition of Zen meditation. These interventions focus on recogniz-

ing, and accepting the internal experiences including thoughts, emotions and bodily sensations of the individual. Alongside, the main target is to bring awareness/attention to these internal processes. Since attention is also a key to a positive outcome in ADHD, researchers have been curious whether MBI might prove useful for the same (Modesto-Lowe, 2015).

Most MBI utilize different meditative techniques such as body scan, sitting meditation, and mindful yoga with the purpose to help participants develop a non-judgmental and mindful awareness of present situation. These techniques have been implicated in improving the core symptoms of ADHD, especially inattention. The mechanisms behind the effectiveness of MBI in ADHD are found at both the behavioural and neuroanatomical levels. Literature reveals the role of three large neural networks at play- the default mode network, central executive network and salience network.

By enhancing attention, MBI holds the promise to improve core symptoms of ADHD, namely self-regulation, task completion, and impulse control. Posner model of attention comprises three components: alerting, orienting and conflict monitoring which can be improved with meditation (Posner, 1995). The brain areas involved in regulating these three components include the reticular activating system, parietal lobe and the anterior cingulate cortex. MBI has been postulated to work on these three attention processes which then help improve the symptoms of ADHD.

Carboni (2012) examined the association of mindfulness training, attention regulation, and hyperactive behaviour of children with ADHD. The study involved multiple baseline assessments of participants. The intervention included eight weekly sessions lasting 30-45 minutes per session, with a one-on-one mindfulness training programme adapted from the Mindfulness-Based Stress Reduction programme (MBSR). Results of the analyses revealed that mindfulness training was effective in decreasing the hyperactive behaviours of children with ADHD. However, the domain of attention did not reflect any significant change post intervention (Carboni, 2012).

Another study by Edel et al. (2017) compared a novel mindfulness-based training program with an established skills training to reduce ADHD symptoms and improve mindfulness and self-efficacy. Ninety-one adults with ADHD were recruited as participants. A two-hour session each week was performed for 13 weeks in both the groups. Results found small to medium effect size and similar reduction of ADHD symptoms (Edel et al., 2017).

An intervention was adapted from Mindfulness-Based Cognitive Therapy (MBCT) for 13 to 18 year-old with ADHD along with their parents. A total of 18 Adolescents and 17 parents participated in this study where they underwent parallel sessions on a weekly basis for 8 weeks each lasting 1.5 hours. The intervention was termed MYmind and was based on MBCT. Participants reported improvement in adolescent symptoms of ADHD along with their internalizing and externalizing problems. Other domains such as functional impairment, parenting stress, and mindfulness also improved with MYmind (Haydicky et al., 2015).

Most of MBI used for ADHD incorporate interventions broadly belonging to the mindfulness domain. However, programmes such as MYMind are specifically designed and utilized in studies to determine their feasibility and efficacy in ADHD. Module of MYmind is established based on MBCT and MBSR. The intervention is delivered through 8 weekly group sessions lasting for 90 minutes for children with ADHD and their respective parents. The themes for children are named “From Mars”, “My Body”, “My Breath”, “Distraction”, “Automatic responding”, “Up to now”, “Practice” and “On my own”, with each theme having mindfulness based exercises. Similarly, for parents the themes include “From Mars”, “My Body”, “My Breath”, “Automatic responding”, “Habits and Automatic responding”, “Communication

with your child”, “Accepting your child”, “On your own, letting go” along with corresponding exercises (Haydicky et al., 2015).

Components of the programme include various mindful exercises such as sensory awareness, mindful breathing meditation, body scan, yoga etc. MYMind also focus on communication between parent and child, acceptance and letting go during parent’s session (Chan et al., 2018). There are a proposed set of mindfulness exercises for an active control group on themes including problem solving, self-control, handling academic problems, understanding emotions, response to emotions, listening and conversational skills, perspective taking in social situations and handling social problems (Chan et al., 2018).

Schoenberg et al. (2016) in their study compared the efficacy of a 12-weeks intervention adapted from MBCT versus a waiting list group. Intervention included weekly 3-hour sessions for 12 weeks with 30-45 minutes’ self-practice per day. MBCT was found to be effective in reduction of ADHD symptoms and significantly improve in executive functions and mindfulness skills. However, no improvements were found for depression, anxiety, and patient functioning (Schoenberg, 2016).

A feasibility study of an 8-week mindfulness training program for adults and adolescents with ADHD was performed which included twenty-four adults and eight adolescents with ADHD as participants (Zylowska et al., 2008). The intervention included a mindfulness awareness programme, lasting 2.5 hour per week accompanied by daily at home practices. The participants reported high satisfaction with the training along with improvement in ADHD symptoms. The results also revealed improvement in performance on test of attention and cognitive inhibition post intervention. Symptoms of anxiety and depression also improved with intervention (Zylowska et al., 2008)

A meta analytic review on the effectiveness of MBI for ADHD was recently published. It included 10 studies for the analysis of inattention and 9 studies for the analysis of hyperactivity/impulsivity. Results showed that MBI significantly abated symptoms in both the domains. Effect sizes for the inattention group was at $d = -.66$ ($p < 0.001$) and for the hyperactivity/impulsivity group was at $d = -.53$ ($p < 0.001$). Sources of heterogeneity such as study designs, age of participants, role of mindfulness in parents warrant to read the results with caution (Cairncross & Miller, 2020).

Indian Context

ADHD research in Indian context is limited. However, researchers have started to understand various clinical and etiological aspects of ADHD from last two decades as highlighted by systematic reviews done to assess the current status of ADHD research in India (Satapathy et al., 2016; Kuppili et al., 2017). Few studies have utilized yoga and meditation as an adjunct treatment to the routine management of ADHD and found them to be effective but improvement was not sustained till follow up at 3 months and one year (Hariprasad et al., 2013; Mehta et al., 2012).

Mahesh and Kumar (2019) studied influence of mindfulness training on adolescent with ADHD. Results revealed significant reductions in symptoms of ADHD, inattention and hyperactivity, post 10 sessions of mindfulness training. Majority of the studies done in India have methodological limitations such as small sample size, lack of control group, cross sectional evaluations and varied tools used for assessment. Therefore, review articles recommended the need for more methodologically sound studies in the area of ADHD (Satapathy et. al., 2016; Kuppili et al., 2017).

OTHER TREATMENT MODALITIES FOR ADHD

Treatment modalities for ADHD include both pharmacological and non-pharmacological measures. Pharmacological options include stimulant and non-stimulant medications. Stimulant medications include methylphenidate and amphetamine, and are the first line drugs as per NICE guidelines (Mattingly et al., 2017). Clinically relevant non-stimulant medications include atomoxetine, clonidine and guanfacine. For ages 5 years and above, NICE guidelines recommend medications as the choice of treatment, whereas for ages below 5, behavioural treatment remains first choice.

Non-pharmacological and psychosocial treatment modalities for ADHD include Cognitive Behavioural Therapy (CBT), psychoeducation, parent training, organizational skills and social skills training to name a few (Evans et al., 2014). While 70% to 80% of patients respond to stimulant or non-stimulant medications, their clinical utility is restricted by their adverse effect profile leading to issues in tolerability and acceptability. Commonly faced adverse effects with one or more of the approved medications include insomnia, headache, growth retardation, weight loss, sedation (Chavez et al., 2009). Augmentation of pharmacological treatment with psychosocial measures have been shown to provide better clinical outcomes.

Meta-analysis has supported the effectiveness of behavioural interventions for children with ADHD. However the benefits of behavioural interventions are circumscribed to improving disruptive behaviour and interpersonal effectiveness rather than the core symptoms of ADHD (Weyandt & DuPaul, 2006). CBT for ADHD involves self-instruction, self-statements and self-reinforcement. Effects of CBT are promising but limited. The effectiveness of meta-cognitive therapies in adults with ADHD has also been documented (Solanto et al., 2010).

CHALLENGES AND ISSUES WITH THE CURRENTLY AVAILABLE TREATMENT MODALITIES

- Side effects of medications which limit their acceptability and tolerability. Hence, problems of treatment adherence remain a concern.
- Abuse potential of stimulant medications restrict a certain population from their use who are tentatively at a high risk for substance use disorders.
- Evidence shows limited role of psycho stimulant and non-stimulant medications on the co-morbid psychiatric disorders or internalizing symptoms of ADHD. Since co-morbid psychiatric disorders are prevalent in ADHD, this is a major area of concern.
- Medication acceptance in the childhood and adolescent population is a well-known concern. This limits the utility of pharmacological management of ADHD.
- Non-pharmacological measures such as behavioural therapy, CBT, and DBT have shown promising results for the core symptoms of ADHD. However, trained professionals and centres who can deliver the same are highly limited.

DISCUSSION

ADHD is a neurodevelopmental disorder with a high rate of persistence into adulthood (Meppelink et al., 2016). The impact of ADHD and its symptoms (inattention, impulsivity, hyperactivity) on daily life socio-occupational functioning is huge and yet remain overlooked. Though currently available pharmacological treatment modalities have been able to establish their effectiveness to control the symptoms but their use is restricted by a range of side effects and contraindications.

MBSR was the first introduced for patients with chronic painful states (Grossman et al., 2004). Its use has been expanded to other psychological disorders such as depression and anxiety since then. MBI in ADHD is in its emerging stages with few studies testing the feasibility and effectiveness of the MBI interventions in ADHD. However, considering the available literature the findings revealed promising results for MBI in reducing the core symptoms of ADHD as well as its co-morbidities (Cairncross & Miller, 2020). The mechanism of change through mindfulness-based interventions in ADHD reflect positive outcome for patients symptoms as well as their academic achievement. The basic component of paying attention on the moment helps individuals with ADHD to remain present on the task and thus improve the focus.

However, there remain significant limitations while interpreting the results of most of available studies. First, only a very few studies employ a randomized control trial design to compare MBI with existing modalities. Second, heterogeneity in studies arising from variables such as age of participation, adherence with MBI and only a few studies employing interventions including MBI for parents lead to significant issues in establishing consensus evidence. Third, tailoring culturally appropriate MBI to be able to be effective globally will be a significant challenge.

SOLUTIONS AND RECOMMENDATIONS

Meditation, a widely practiced spiritual technique in the eastern parts of the world since ancient times has been gaining popularity as an adjuvant measure of treatment for many psychiatric conditions in the past few decades. Meditation is defined as a set of attention practices leading to an altered state of consciousness and characterized by increased awareness and a more integrated sense of self (Krisanaprakornkit et al., 2010). Along similar lines lays the practice of mindfulness. MBI has gained popularity as effective treatment modalities for number of physical and psychological problems including ADHD. There exist studies and trials which report the benefit of MBI in children with ADHD with comparatively lesser evidence for the same on adults with ADHD (Khoury et al., 2013).

DIRECTIONS FOR FUTURE RESEARCH

Future research pertaining to MBI in ADHD needs more methodologically rigorous study designs, particularly adequately powered randomized control trials which would help in providing further evidence. Comparisons of child-only, parent-only and combined parent-child interventions will help decide which family member delivers greatest benefit relative to cost of the interventions.

Variables and characteristics moderating the beneficial effects of MBI in ADHD such as length of the intervention, adherence to homework assignments, training of therapist need more elaborative research.

Future studies will need to include standardized objective tests and behavioural questionnaires to assess improvements in different symptoms of ADHD. Studies also need to mention the details of the development of intervention. Lastly, whether MBI's are more effective for certain stages or subtypes of ADHD also remains a potential area of study.

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KEY TERMS AND DEFINITIONS

Attention Regulation: The ability to self-monitor one’s deployment of attention, which includes maintaining attention, ignoring distracting or irrelevant stimuli, staying alert to task goals, and coordinating one’s attention during a task.

Impulse Control: The ability to control an impulsive act or behaviour which is potentially harmful to self or others.

Mindfulness: Process of paying non-judgemental attention to the present moment.

Self-Regulation: The autonomous and conscious management of arousal or activity in attention, emotion, and stress response systems in ways that progress towards attainment of goal-directed actions.

Task Completion: The consummation of a given task with satisfactory standards within the stipulated time interval.

Chapter 10

Mindfulness–Based Interventions in Psychosis

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ABSTRACT

Individuals suffering with psychotic disorders face lifelong emotional dysregulation and may have impairments in their thought processes and perceptual experiences despite the availability to pharmacological treatment and good compliance. They feel extreme distress with their psychotic experiences that may result in avoidance of these experiences which may further warrant for residual symptoms and frequent hospitalizations. For a few decades literature has focused on exploring the possibilities of acceptance-based interventions in psychosis. Mindfulness interventions employ the strategies of direct use of meditation practice or combined use of meditation with acceptance-based or compassion-based practices. This chapter tends to summarize the various mindfulness interventions used for psychosis and review their feasibility in terms of evidence base and therapeutic specificity. Furthermore, it recommends the guidelines for protocol to be used with psychotic individuals and advocates the need for more methodologically rigorous evidence.

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INTRODUCTION

Mindfulness originated in Buddhist philosophy and meditation practice over 2500 years ago, but since few decades mindfulness can be seen seeking new dimensions outside the Buddhist context in health psychology where it is being employed as an intervention. Mindfulness Intervention (MI) can be helpful in easing the distress and disturbances associated with symptom of psychosis rather than controlling, restructuring or avoiding the symptom itself. These aid individuals to learn the skills to alleviate their distress, enhance positive affect, decrease negative affect and reduce maladaptive automatic emotional responses by using MI techniques. Many studies have reported significant improvements in patient's cognitive functions, emotional regulation, stress and quality of life after implementing MIs but the effect sizes were small to moderate as compared to treatment as usual or other treatments. Concerns have also emerged from the literature whether the application of mindful-meditation in psychosis will trigger or cure the psychotic episode if the individuals need to concentrate on their internal experiences without being judgmental. Thus, clinicians have serious concern with the implementation of MI. Therefore, it is important to critically evaluate and mention the components, outcomes and effectiveness of MIs. Hence, this chapter will throw light on clinicians' basic concerns about the modifications, implementation and benefits of MIs such as when and how can we start a MI and how it's going to be effective in psychosis? Can MIs provide a number of therapeutic benefits comparable to routine care? Are MIs as effective as CBT or alternative interventions? Can MIs be safe intervention for people with psychosis? etc.

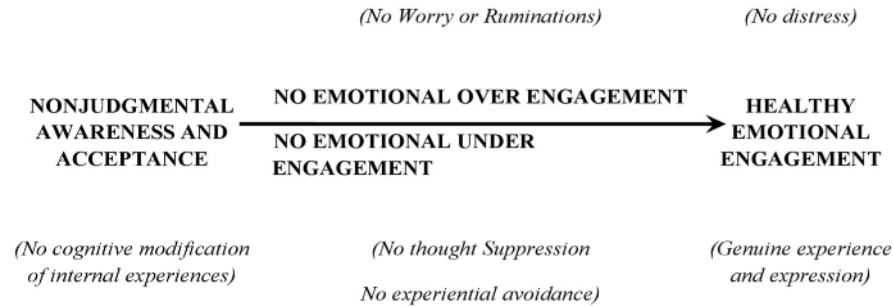
BACKGROUND

Mindfulness assumes that an experience is followed by some typical habitual response that may further cause distress to the individual opposing the prospect that experiences may direct lead to distress (Abba et al., 2008). Mindfulness is a mental training where an individual discovers the other ways to respond to experiences that alleviate the distress by changing the relationship that individual has with his or her emotional experiences (Ivanovski & Malhi, 2007; Kabat-Zinn, 2009). It aims at increasing one's moment-to-moment awareness and attention and simultaneously rejecting the need to change or modify one's internal experiences, such as emotions and cognitions. This kind of nonjudgmental awareness facilitates balanced emotional engagement (Bridges et al., 2004).

Mindfulness training and practice includes following elements:

1. An organized system of method which incorporates both the authentic recognized mindfulness practice (body scan, mindful walking etc.) as well as the informal mindfulness practice (Socratic dialogues).
2. An attitudinal framework characterized by curiosity, willingness and kindness. These are deliberately cultivated to become aware and present with exploration of experience of daily life during the practice.
3. An appreciation of human vulnerability that suffering is an inherent part of experience which can be recognized and there are ways to get rid of the habits to these experiences that subsequently perpetuate or add to it. This is developed by integrating the personal experience that is explored without judgment with the understanding of Buddhist philosophy around mindfulness practice. Figure 1 describes how these elements are integrated.

Figure 1.



Mindfulness as a Clinical Intervention

The ground behind mindfulness as clinical intervention in mental health is that an individual may feel less distressed and less disable even in the presence of symptomatic experiences just by learning to bring changes in the habitual responses to such experiences (Chadwick, 2014). Effectiveness of Mindfulness-Based Interventions (MBIs) is established in individuals with various psychopathologies when these are not acute or severe, particularly anxiety and depression. MBSR (Kabat-Zinn, 2009) utilizes mindfulness as an independent group intervention for people with diverse conditions, including heart disease, AIDS, chronic pain, depression and anxiety. MBCT (Segal et al., 2002) developed from MBSR. It was designed to curb the relapses associated with recurrent depressive disorder and is now recommended in NICE guideline on the treatment and management of depression in adults (National Collaborating Centre for Mental Health, 2010).

Need for an Approach Away from Cognitivism in Psychosis

Redefining the Symptomatology in Psychosis

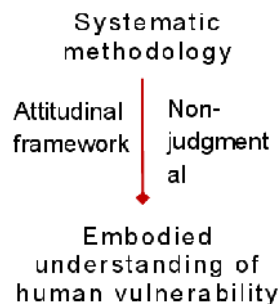
American Psychiatric Association (Edition, 2013) illustrates that a psychotic disorder can have positive psychotic symptoms like delusions and hallucinations, negative symptoms like alogia, affective flattening and lack of motivation, and cognitive impairments leading to impairments in psychosocial functioning. Current studies are exploring the construct of social mindfulness that is closely defined as an ability and willingness to be thoughtful and aware of the presence of other beings in that moment as well as considerate of their needs and wishes while making a social decision (Lemmers-Jansen et al., 2018; Van Doesum et al., 2013; Van Lange & Van Doesum, 2015). Social mindfulness has been reported to be reduced in the first episode and clinical high-risk patients who have reduced neural activation in the brain areas involved in social decision making (Gromann et al., 2013; Lemmers-Jansen et al., 2019; 2018).

Recent literature has also tried to define negative symptoms in terms of a reaction against psychotic experiences. These symptoms may be an attempt to experientially avoid or moderate the exposure to the positive symptoms or the consequences it may impart in the form of negative evaluations by others or the psychiatric treatment (Mairs et al., 2011). Furthermore, negative symptoms are perceived to be linked to the despondent beliefs about mastery and pleasure (Khouri & Lecomte, 2012).

Chadwick et al. (2005) have attempted to elaborate on the rationale for applying mindfulness in psychosis. The authors stressed that this distress supposedly results from a vague awareness about the experience of psychotic sensations. This leads to experiential avoidance where individual attempts to modify the content, frequency and the contexts of those experiences (Hayes 1994) in the anticipation of something harmful. This creates more confusion and is followed by the negative judgment of the sensation or the self or the both. They almost always judge the sensations experienced as “other” that is, a voice or a persecutor and get caught in rumination or confrontation because individual with psychosis are liable to get locked on sensations or stimuli that are difficult or have personal significance (Chadwick et al., 2005). Jacobsen et al. (2011) have also observed that the distress experienced as a result of positive psychotic symptoms may either lead to frequent engagement with avoidance strategies (suppression, distraction), or engrossment with the symptoms (rumination, confrontation).

Contrary to these, mindfulness involves choiceless attention, awareness and acceptance of psychotic experiences in present moment that are not facts or accurate reflections of reality by not indulging into vicious cycle of avoidance, judgment and fixation with the symptoms. This mindful experience of the psychotic sensations doesn't make these absent or less repulsive; however, the distress as a result of reacting against them is absent. Figure 2 has tried to redefine the psychotic experiences using the mindfulness concepts.

Figure 2.



Appraising the Established Approaches for Psychosis

Cognitive therapies are an effective treatment for psychosis. CBT for psychosis as recommended by national guidelines has shown changes in positive symptoms and other psychopathology with small to medium effect sizes. However, this effect was not reported stable for delusions after follow up period of 47 weeks (Mehl et al., 2019) with no improvement in quality of life and small benefits on distress in schizophrenia when not adjusted for publication bias (Laws et al., 2018). Cognitive therapy has not truly come out from cognitive science but from the work by Kelly (2003). Beck et al. (1979) and Ellis, Young and Lockwood (1987) also developed most of the strategies out of their own experiences with clients suffering from depression and anxiety, therefore primarily deals with positive emotions.

With antipsychotic treatment also, studies have reported poor response in around 36% of individual with schizophrenia (Liu-Seifert et al., 2005), and in schizophrenia and related psychotic disorders with frequent accompanying of depression and anxiety symptoms (Lewandowski et al., 2006). Moreover, in-

Mindfulness-Based Interventions in Psychosis

dividuals with psychosis who cope better usually pronounce the role of a more accepting attitude towards their experiences (Johns et al., 2002) probably using focusing techniques, and a capacity to disengage from them using distraction techniques (Nayani & David, 1996). Hence, the need for a new approach can be justified on the assumption that an approach is needed that should focus on the negative emotions and suffering rather than control of symptoms.

Following the emergence of third wave of cognitive therapies (Hayes et al., 2004), the concepts of mindfulness, acceptance and compassion have been incorporated into cognitive behavioural framework (Gilbert, 2009; Hayes et al., 1999; Kabat-Zinn, 2009; Linehan, 1993) sharing the same aim of alleviating the distress by enhancing motivation to enfold and accept present moment experience (Khouri et al., 2013).

Mindfulness Practices

Mindfulness practice has been imparted in various forms and contexts. It can be an independent mental training alternatively can be one of the techniques of a wider intervention where other constructs like

Table 1. Description of modules employing mindfulness training

Mindfulness-Based Stress Reduction (MBSR) (Kabat-Zinn, 2009)	§ Developed to manage stress related pain § Eight weeks group-based intervention § Focus is on choice less attention to sensory aspects of activity as opposed to activity on 'autopilot' that help in cultivating nonjudgmental awareness of mental events. § Exercises include mindful breathing and body scan
Mindfulness-Based Cognitive Therapy (MBCT) (Segal et al., 2002)	§ Developed to manage depression and relapses in depressive episodes § Grew out of MBSR § Eight weeks group based therapy § Focus is on changing one's reaction and relationship to thoughts, as opposed to challenging the content of a thought that is done in CBT § Exercises include body scan, sitting meditation, mindful walking, mindful eating and yoga
Acceptance and Commitment Therapy (ACT) (Hayes et al., 1999)	§ Described as a contextual CBT as it attempts to alter the psychological context of internal experiences § Focus is on mindful non-judgmental acceptance of distressing internal experiences rather than avoiding them so that clients find them less distressing, along with identifying values and pursuing valued goals of life § Techniques include acceptance, mindfulness, cognitive diffusion, dialectics, spirituality, values and committed action
Compassion Focused Therapy (CFT) (Gilbert, 2009)	§ Developed to improve mental health by addressing patterns of self-criticism and shame § An integrative multimodal approach deriving key views from social, Buddhist, developmental, neuroscience and evolutionary psychology § Group based therapy § Focus is on compassionate mind training for generating positive emotional responses by bringing balance among protection, excitement and soothing systems and helping people to cultivate compassion for self and others § Techniques include socratic questioning, behavioural experiments, compassionate guided imagery, chair work, mindfulness, method acting, expressive writing and attention regulation
Mindfulness-Based Psychoeducation Program (MBPP) (Chien & Lee, 2013)	§ Developed to help the individuals with schizophrenia improve their understanding about illness § Integration of psycho-education programs by Chien & Lee (2010), Kabat-Zinn et al. (1992) and Lehman et al. (2004) § Comprises seven components § Components of Phase 1 are guided awareness exercises with homework § Components of Phase 2 area workshop on schizophrenia care, coping skills and problem solving § Components of Phase 3 are behavioral rehearsals of relapse prevention strategies, community support resources, and future plans § Various strategies addressing Chinese cultural ideology has been adopted

‘acceptance’ in Acceptance and Commitment Therapy (ACT)(Hayes et al., 1999)and ‘compassion’ in Compassion-Focused Therapy (CFT)(Gilbert, 2001) are more emphasized. Table 1 presents the description of modules that have employed the contemporary mindfulness training as an integral part while one module has used modified mindfulness training.

FEASIBILITY OF MINDFULNESS TRAINING IN MINDFULNESS INTERVENTIONS FOR PSYCHOSIS

Mindfulness Interventions for Psychosis (MIP) have lagged behind as studies have raised concerns about the implementation of mindfulness training because of following reasons:

Risks of Induced/Exacerbated Psychosis

Uncontrolled trials mainly including isolated single case studies have raised the concerns about worsening of mental health in the individuals with psychosis (Deatherage & Lethbridge, 1975), or those vulnerable to psychosis (Yorston, 2001) following a meditation practice. A recent literature review examining precipitation of psychotic episodes following mindfulness identified six such clinical case studies (Shonin et al., 2014a). Some participants had a history of mental illness or psychotic episodes while two reported no such history but induced psychosis (Sethi & Bhargava 2003). Though, the practice in these studies was not necessarily a contemporary mindfulness intervention and included various types of exposure. Another recent review by Vignaud and all on 9 studies on first episode psychosis and 1 on those at high risk concluded that mindfulness interventions are well-tolerated and have adequate adherence. Increased positive symptoms were reported by none (Vignaud et al., 2019). Moreover, people have reported no obsessions with their thoughts following mindfulness exercises (Dyga & Stupak, 2015).

Recent evidence supports the safety and positive impact of MIP on psychological well-being and the capacity of mindful response to distressing experience of symptoms in individuals with active psychosis (Abba et al., 2008; Chadwick et al., 2009; Langer et al., 2011; Langer et al., 2012) and those with chronic, treatment resistant psychosis (Jacobsen et al., 2011). Specifically, the findings suggest that this patient population was stable, could tolerate short sitting meditations and didn’t disturb other participants.

Addiction to Meditation

Research literature has also reported of individuals becoming addicted to meditation with negative consequences of distress, dissociation, interpersonal conflict, etc. (Perez-De-Albeniz & Holmes, 2000). While a single case study has discussed about development of an addiction for meditation in participants with schizophrenia with pathological gambling following eighth week awareness training of meditation (Shonin et al., 2014b), other recent study has reported satisfactory adherence (Vignaud et al., 2019). The mindfulness training was included with other meditative modes.

Authentic Practice

Qualitative studies have indicated the role of expectancy effect in mindfulness. When participants feel that the mindfulness instructor is authentic in transmission of the mindfulness teachings, they respond favorably (Shonin et al., 2014b). This is an important consideration as clinicians and researchers have reflected their concerns about inefficiency and insufficiency of ground training for some instructors of MBIs.

Lack of a Standardized Protocol for Independent Use

Most reviews have failed to find any study that has applied mindfulness as an independent intervention to psychosis (Baer & Krietemeyer 2006). This may point towards unavailability of a standardized protocol that can be followed. Consequently, it has been modified in various ways and used as an integral component of wide range of therapies. Also, MIP has not grown big enough to differentiate itself entirely and settle into being an independent psychotherapy approach. Research is still going on.

EFFECTIVENESS OF MINDFULNESS INTERVENTION FOR PSYCHOSIS

Literature suggests a lack of standardized protocol of MIP. Reviews have documented substantial heterogeneity in the delivery of interventions. A diverse range of primary or main outcomes have been assessed which have made it difficult to derive firm conclusions and recommendations on the MIP and its treatment effects.

Evidence Base for mindfulness interventions for psychosis

Most of the literature has shown use of modified MIP either given alone or have been integrated with other approaches. Meta-analysis has claimed feasibility of MIP in pre-post intervention studies with a moderate effect size, and in controlled group comparison studies with a small to moderate effect size (Khouri et al., 2013). Many of them included 13-14 studies only (Khouri et al., 2013; Potes et al., 2018). They have found the utility of MIP in managing negative symptoms with moderate improvements in affective and negative symptoms and have further acknowledged the significance of acceptance and compassion constructs as complementary strategies to augment clinical effects (Khouri et al., 2013). However, the comparability of using active control conditions against MIP still cannot be accredited firmly from the review studies (MacCoon et al., 2012).

Systematic reviews have mostly targeted the mindfulness interventions for schizophrenia and related psychotic disorders. One review included interventions that incorporated the elements of acceptance and compassion in conjunction with mindfulness and concluded that these MIP are feasible in psychosis and are beneficial either over routine care or over other interventions in some studies. However, smaller gains were observed in the trials despite well-designed controls or blind treatment allocation (Aust & Bradshaw, 2017). A systematic review by Lam and Chien (2016) comprised of six MBIs program which

included individual or group, face to face and telephonic and/or internet modes of MIP. An argument was further made about the potential generalization and replication of intervention because of the variations in these delivery modes.

Case studies have discussed therapeutic impact (Chadwick et al., 2009) as well as the risk of MIP (Perez-De-Albeniz & Holmes, 2000; Sethi & Bhargava, 2003). However, most of the case studies had used meditative modes that have encompassed mindfulness. Taylor, Harper, and Chadwick (2009) presented two cases of males with paranoid schizophrenia, who were experiencing auditory hallucinations and were on medication. Findings revealed no improvement in the frequency of auditory hallucinations but the level of believe ability of their symptoms and distress associated with them was reduced. The evidence base findings can be summarized as follows:

Use of Modified Mindfulness Interventions for Psychosis Programs

Most of the studies including randomized controlled trials have made at least some modifications for MIP. These modified MIP programs have been either used independently or have been integrated in other approaches. Independently, these have been used as meditation practice or as mindful activities with self-help manuals (Moritz et al., 2015). Integrated programs included MBSR (Davis et al., 2015), MBCT (Randal et al., 2016), MIP with socratic questioning and discussion (Taylor et al., 2009) and MBPP (Chien & Thompson, 2014; Davis et al., 2015; Wang et al., 2016) has devised mindfulness intervention for rehabilitation and recovery in schizophrenia (MIRRORS) that has been adapted from MBSR. Langer et al. (2012) in addition used poetry and metaphors to help illustrations.

Variations in Structure of Mindfulness Interventions for Psychosis Programs

1. **Techniques:** Studies have even implemented either only single technique of mindfulness (Chien & Lee, 2013; Chien & Thompson, 2014; Davis et al., 2015) or different mindfulness exercises (Langer et al., 2012; Ong et al., 2014).
2. **Number of Sessions:** The studies have used single session to as many as 16 sessions that have been offered once a week, twice a week or once in two weeks. However, most studies used 12 sessions while few have used 8-session programs (Langer et al., 2012; Valk et al., 2013) or 26-session program (López-Navarro et al., 2015) or even 32-session program (Davis et al., 2015).
3. **Length of Sessions:** The length mostly varied from 60 min session to 90-min session (Samson & Mallindine 2014; Tong et al., 2016). Nevertheless, few studies have also offered 2-hours session of MBI for psychosis (Chien & Thompson, 2014; Randal et al., 2016).
4. **Follow-ups:** Follow-up measures have been varied from 2 weeks post intervention to 24 months from beginning of a 6-months program (Chien & Thompson, 2014) or of a 4-month program (Davis et al., 2015).
5. **Length of Illness:** Mean durations of illness have found to range from as small as 2.6 years (Chien & Thompson, 2014; Hanh & Khong, 2002) to as long as 21.5 years (Davis et al., 2015). Active psychosis, chronic psychosis, treatment resistant psychosis, first episode psychosis along with those on risks for psychosis have been intervened (Langer et al., 2011; Langer et al., 2012; Jacobsen et al., 2011; Vignaud et al., 2019).

6. **Open Groups:** Open groups have been found applicable in psychosis inpatient intervention because of smaller participation and variability in attendance of participants (Chadwick et al., 2005; Jacobsen et al., 2011). Each week the group attendance has been documented from 3 to 5 participants while each participant attending an average of 3 sessions of intervention (Jacobsen et al., 2011). Recent studies have included 8 participants (Davis et al., 2015; Langer et al., 2012) to 16 participants (Abba et al., 2008) with around 10-12 participants per group.
7. **Outcome Measures:** Emotional regulation, insight in to illness, psychosocial functioning, frequency and duration of re-hospitalizations, suicide and all causes of mortality have been assessed as primary outcomes while symptoms severity, changes in facets of mindfulness, quality of life, drug compliance and coping were assessed as secondary outcomes (Lam & Chien, 2016). Few RCTs have reported no improvement in psychotic symptoms (Davis et al., 2015; Moritz et al., 2015) while few have found increased control and decreased conviction over psychotic experiences (Taylor et al., 2009) and improvement in symptom severity (Chien et al., 2017; Chien et al., 2019). One qualitative study has reported that participants felt reclaiming their power from hallucination and delusion (Abba et al., 2008). One MIP modified for rehabilitation in schizophrenia has found increases on hours of work with improved work quality.

Therapeutic Specificity

Literature has further argued if the clinical improvement is mediated by other factors or the mindfulness practice alone. Most of the literature in population with psychosis has recognized the approaches that have integrated the mindfulness practice as a significant part of their therapy and have shown beneficial effects in various symptoms dimensions. Neff (2003) has claimed mindfulness as a prerequisite for self-compassion so the reported improvement can be mediated by emergence of compassion. Kuyken et al. (2010) has also asserted the role of cultivation of self-compassion that can be attributed to the success of MIP. In view of that, Hölzel et al. (2011) further suggested that it is very difficult to split both constructs.

The approaches which integrate the CBT and mindfulness have proved to be effective in treatment of psychosis. The reason has been attributed to their sharing of a common assertion that all the negative unhealthy emotions including distress and suffering are the consequences of mind (belief) and not the direct consequences of antecedent events like sensation or experiences (Chadwick et al., 2005). Both also share the goal to mitigate the negative emotions that include distress as well. They also share an intention to alleviate that distress. Hence, it can be difficult to advocate the efficacy of MIP in these approaches, however like CBT, MIP do not intend to change the content of those sensations or experiences. Mindfulness process instead generates a new understanding that it is the change in respond to sensations or thinking that makes all the difference. This has been described as metacognitive insight. An insight into psychopathology has not been considered necessary for the participants with psychosis in order to engage in mindfulness practice (Abba et al., 2008). Nonjudgmental acceptance can be difficult when symptoms are severe and may feel real. However, initial sessions in these interventions usually with paranoid delusions or command hallucinations are first themed either around Psychoeducation (about sensations and to be mindful) if mindfulness is applied alone, or with metacognitive insight (significance of sensations) when mindfulness is a part of cognitive based approach like MBCBT, ACT. Therapy starts with mindfulness breathing, body awareness and gradually training leads to detachment themes exercises.

Nonjudgmental acceptance is steadily cultivated in these patients and it contemplates the presence of hallucination and thoughts as momentary sensations without active engagement. Participants can learn to respond mindfully to their psychotic symptoms and may still believe their source as external. As it has been already elaborated how awareness and choice-less acceptance of internal sensations like thoughts, images, sounds diminish the processes of judgment. It may further reduce the habitual self-critical behaviours that in there root have internalized stigma about the deficit self, very commonly observed in people experiencing psychosis that leads to recovery of global functioning.

Additionally, various factors have been identified that participants have ranked beneficial during therapeutic process in group MIP. These factors are mindfulness practice and universality about their experiences as experienced by others also (Abba et al., 2008; Chadwick et al., 2009) which probably works on normalization and stigma and adds to the mindfulness process effects. Mindfulness practice include acceptance and disengagement which can be considered adaptive because distraction or shifting attention is found to be an effective short-term strategy in psychosis management (Nayani & David, 1996; Johns et al., 2002) and acceptance rather than resistance of psychotic experiences is associated with better coping (Farhall & Gehrke, 1997) as it brings the appraisal of presence of sensations rather than the appraisal of content. Disengagement in the moment may allow a space to examine the alternatives to solve problem while in the long term accepting it as experience may enhance self-esteem, hasten insight and foster more adaptive coping styles.

GUIDELINES FOR MINDFULNESS TRAINING IN MINDFULNESS INTERVENTIONS FOR PSYCHOSIS

Apart from the difficulties discussed above in implementation of MIP, patients with psychosis also generally lack insight and have other poor cognitive abilities such as impaired attention, concentration, set shifting, response inhibition etc along with active hallucinations. Several adaptations in the framework of mindfulness training have been suggested (Chadwick et al., 2005) and being adopted in literature (Chien & Thompson, 2014; Chien et al., 2019; Jacobsen et al., 2011) to be used in interventions for psychotic patients to limit the possibilities of reported harms among these patients (Table 2). These can be summarized as following:

Modification in Aim

Reduction or elimination of psychotic symptoms is not the aim of mindfulness intervention. MIP targets the distress about psychotic experiences where associated primary outcomes can be the alleviation of distress and improvement in psychological and social wellbeing. It should be made clear to both, the therapist or trainer and participants taking intervention. The similar argument has been made with respect to CBT for psychosis (Birchwood & Trower, 2006; Chadwick et al., 1996).

Supervisor/Trainer

Mindfulness can be a part of different interventions like MBSR, MBCT, DBT, ACT that may require different skills if are being delivered in clinical setting. Lack of knowledge about psychopathology and

phenomenology, individual and group therapy setting, evidence base can go wrong while implementing the meditation or other mindfulness exercises. Hence, these interventions should primarily be delivered by trained mental health professionals who are equipped with training into these interventions. Besides, certified facilitators with training in clinical setting may also deliver these interventions. Essentials may vary across countries. Moreover, abilities to hold curious, open and nonjudgmental accepting stance comes with practice and professional training and unexpected effects during training can be managed if the trainer or facilitator is experienced. The MBI-teacher assessment of competency has been proposed to assess these skills (Russell & Siegmund, 2016).

Examine the Participant

Though the controlled trial studies have included the participants with active psychosis as well as chronic treatment resistant cases with different levels of severity (Langer et al., 2012; Jacobsen et al., 2011; Vignaud et al., 2019) they took caution that the participants should be stable enough not to disturb other participants.

Limit the Duration

10 minutes of practice, against the traditional 40 minutes practice, has been advised for the participants either with or vulnerable to psychosis in order to curb the loss of consciousness and reality contact in a paranoid rumination or in a confrontation to distressing auditory hallucinations. Besides, a total number of 12 sessions have been standardized for MIP programs.

Supervision of Session with Guidance, Reminders and Prompts

Participants in MIP should be encouraged for choice less attention but not the sustained attention meditation. The states of deep concentration and absorption may lead to the onset of psychotic experiences in those who are vulnerable. Hence, without maintaining the long silences during meditation trainers should guide the participants every 30-60seconds. This guidance should refer unequivocally to the psychotic sensations in a normalizing manner, without giving these sensations any special status over other sensations that may come to pass. This process shapes the beginning of questioning the perceived omnipotence of hallucinations in a very subtle way. With Socratic questioning, a reflective discussion on the use of mindfulness by participants should be emphasized both in session and independently.

Language

Psychiatric patients may not always understand the idiomatic language of metaphors which is universal to most mindfulness teaching. Hence, small sentences with pauses using simple words are recommended.

Delivery of Exercises

Sitting as well as lying meditation can be used with children in initial phase while seeing (following a soap bubble) and hearing meditations (listening to the meditation bell) can be introduced later. Mindful

exercises like raisin exercise, crazy walking can be adapted to children. Reward system can be utilized to enhance the motivation and compliance for mindfulness training. They can earn points for homework and for participation from the trainers and can exchange them with rewards with parents. Grounding exercises with all sensory systems should be emphasized. Separate mindfulness parenting training can be provided to parents.

Encouragement of Homework

Review studies have pointed out regular self-practice as a possible key component in the success of MIP programs. More practice should be encouraged as this may enhance the treatment effects and may bring symptoms improvement (Baer et al., 2012; Ong et al., 2014). Compact disc and summary hand-outs should also be provided at the end of sessions.

Setting

MIP has been suggested to be provided primarily in a group modality because of the following reasons-

- High amenability to a group therapy format
- Compatible to be used as group therapy in an inpatient setting
- Time and cost effectiveness

Table 2. Mindfulness training for psychosis

Steps		Key points
Case formulation of distress		Sharing of the case formulation emphasizing the role of avoidance, judgment and struggle against psychosis in distress
Group preparation		Discussion of the group rationale and aims Emphasize on voluntary participation No need of exploration of past history or self-disclosure
Mindfulness Practice 10-12 sessions 60-90 minutes session with 10-15 minutes break	First Mindfulness breath sitting meditation	Designate breath to anchor the attention into present moment 5 minutes duration Guidance, reminders and prompts every 30-60 seconds
	Brief Body scan	Invite to bring awareness into the body following stretch and relaxation of body parts 3 minutes scan
	Second Mindfulness breath sitting meditation	5 minutes duration Guidance, reminders and prompts every 30-60 seconds
	Home work	Provide compact discs, audio tapes or handouts of mindfulness practice Home work is not required but can be encouraged
	Socratic dialogue and reflective discussions	To manage high level anxiety Discuss psychotic experiences without paying them specific significance over sensations Emphasize therapeutic process, therapeutic relationship and therapy structure Identify internal and external distracters and help in creating breathing space
	Other mindfulness exercise	Can be introduced gradually Designate other sensations as anchor of attention May include mindfulness walking, then mindfulness with sound, then mindfulness with thoughts, or mindfulness with voices

However, there are studies with group MIP which failed to produce significant group differences on symptom improvement post intervention with diagnosis of schizophrenia and bipolar affective disorder (López-Navarro et al., 2015) and with diagnosis of schizophrenia, schizophreniform disorder, schizoaffective disorder or delusional disorder (Langer et al., 2012). Table 2 is an attempt to formulate the mindfulness training for psychotic patients.

Exercises and Techniques of Mindfulness Practice

The following mindfulness exercises have been found beneficial in psychosis:

Mindful Breathing

Mindful breathing can be done in many ways. One technique is focusing on the breath each time when persons find that they are getting distracted by internal or external stimuli. They can acknowledge these sensations and again focus on their breath. This can be done in sitting position. In case they are easily distractible, they can utilize the other sensory aspects altogether like hearing ‘birds singing’ or visualizing ‘white light with healing powers’ while breathing in and hearing ‘roar of angry waves’ or visualizing ‘black smoke with negative energy’ while breathing out. Another technique is counting in-breath and out-breath that is often used in relaxation practices. However, here the limit is up to five or maximum ten breaths within ten minutes of practice. In case the persons feel distracted and lose count, they may again return to one.

Nostril Breathing

This technique is an adaption of Yoga. The participants hold one nostril closed with their finger and breathe in, then close the other nostril with another finger, open the previous nostril simultaneously and breathe out. Then they breathe back in the same nostril and follow the same procedure. This may continue for 10 minute duration.

Mindful Walking

The techniques where one needs to focus and concentrate on some ongoing action can aid in reducing the thoughts flowing through our mind. In one technique, participants bring their focus to each of the steps saying ‘in, in, in, out, out, out’, notwithstanding breathing in or out and continue the walking. An alternate slower meditation can be done indoor where a person walks very slowly and moves one foot forward with each breathe in and breathe out. Hanh and Khong (2002) have described another technique for mindful walking where the participant can invite a person, she/he trusts into her/his mind. With every breathe in, the participant may call the name of the person being invited, for example ‘X, X, X’ and with every breathe out, may say in mind ‘I am here, I am here’ suggesting that the participant is also present for accompanying the invited friends. Besides these, participants can just walk slowly focusing the environment and the foot-steps and perceiving the present moment through their senses as they are.

Acceptance and Awareness of Experience

Several metaphors have been used with adult and children to cultivate an assertive attitude and non-judgmental approach towards distressing sensations. Hanh and Khong (2002) have described the thought structures as habit energies. One of the strategies they recommended is personifying these energies and using smile towards these, saying, 'Hello habit energy, I know you are there but you cannot make me do anything I don't want to do. I acknowledge that you are here but I am free from your influence'. The strategy may aid in understanding what emotions and relationship issues the sensations like voices might be representing and help in developing the ways to recuperate calmness and a sense of control.

Generating Alternative Values

Feeling of anger, shame, self-criticism or self-loathing can be associated with psychotic experiences like voices. Visualization techniques by (Gilbert & Procter, 2006) can be used to create a personal and positive meaning and cope effectively with those negative emotions. Some of the techniques include-

- Create voices giving positive message
- Generate a compassionate figure, real or imaginary, animal or angel, sending the person affectionate feelings and attitudes for example love, reassurance, sympathy and understanding
- Visualize self-help group in times of distress
- If desired, an object can be carried for symbolization

FUTURE RESEARCH DIRECTIONS

The evidence base for MIP is growing but studies are limited to small exploratory studies even barring the routine clinical practice. There is a need for more evidence using methodological rigor including sufficient statistical sample size power and evaluating long term effects of MIP on the significant outcome variables like relapses, insight etc. Research has yet not found out the mechanism of mindfulness process whether the therapeutic effect is intervened by mindfulness exercises, or by acceptance of psychotic experiences and self or because of the metacognitive insight. In absence of standard protocols, the manualized health-enhancement program has been suggested for controlling the various non-specific factors that are present in mindfulness meditation groups (MacCoon et al., 2012). Inclusion of other psychiatric population like bipolar may review the true potential benefits of MIP.

CONCLUSION

The applicability and effectiveness of mindfulness-based interventions is questionable because of absence of a standardized protocol and well controlled trials but still it is setting up its presence in the treatment approaches available for psychosis and that too in the short span of time.

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KEY TERMS AND DEFINITIONS

Cognitive Therapies: Therapeutic approaches directed towards modifying the information processing by identifying and restructuring the maladaptive thought patterns or cognitions into constructive ones.

Internal Experiences: An idea used in mindfulness practice to define the sensations, thoughts, emotions, or feelings.

Meditation: An altered state of consciousness. Also defined as a family of focused techniques practiced in religious traditions to produce radical changes in individual's perceptions about self, others, and world.

Mindfulness Meditation: A traditional form of spiritually profound meditative practice that aims to use curiosity and focused attention to cultivate present moment awareness, self-understanding, acceptance, and spiritual calmness without being critical.

Mindfulness Practice: Practice of mindfulness meditation exercises based on Buddhist principles.

Psychosis: A functionally disruptive symptom of various psychiatric, neurodevelopmental, neurological, and medical conditions characterized with significantly decreased or increased psychomotor activity, social-cognitive impairments and emotional disturbances.

Publication Bias: A research term to describe a bias that occurs when the direction and magnitude of research study outcome influences the decision of either publishing or distributing the study.

Sensations: Immediate experience in respond to external stimulation of sense organ, sensory nerve, or sensory area in brain.

Therapeutic Specificity: A construct that a specific therapy or therapeutic technique is the only predictor of an outcome

Chapter 11

Mindfulness–Based Therapy in the Management of Tinnitus

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ABSTRACT

Mindfulness-based interventions are one of the recent techniques that have proven to be very useful in tinnitus management. Mindfulness therapy refers to experiencing the present, which helps control the attention system, which significantly contributes to getting relief from the adverse reactions due to tinnitus. Several systematic reviews and randomized controlled trials report relief from tinnitus perception even with the heterogeneity of the patients with mindfulness therapy. The different study designs and outcome measures reported similar results suggesting the efficacy of mindfulness-based training. Thus, psychologists and audiologists dealing with individuals suffering from tinnitus can attempt this technique in management. The mindfulness-based training can be combined with formal Cognitive Behavioral Therapy (CBT) and Tinnitus Retraining Therapy (TRT) approaches to enhance tinnitus treatment.

INTRODUCTION

Tinnitus is the sensation of sound without the presence of an external stimulus (Henry, Dennis, & Schechter 2005). Tinnitus significantly affects the quality of life of individuals, such as affecting sleep, thinking ability, and functional skills (Henry, Dennis, & Schechter 2005). Tinnitus is one of the common otological symptoms reported by individuals with hearing impairment. Also, tinnitus is seen even in individuals with normal hearing without any underlying organic pathology (Jastreboff, 1990). It is also necessary to differentiate tinnitus and auditory hallucinations. Auditory hallucinations mainly occur due to neurological and psychiatric conditions (Nam, 2005). Although the definitions of tinnitus and auditory hallucination are very similar, the origins and underlying causes clearly differ (Nam, 2005). Tinnitus can be seen in one ear, both ears or in the head (Jastreboff, 1990). The tinnitus can be perceived just for few seconds or can be heard throughout the day (Henry et al., 2005). The symptom of tinnitus is reported in children, adults and also geriatrics with or without any hearing loss (Jastreboff, 1990).

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In the United States, the symptom of tinnitus is reported in 8% to 25.3% of the population (Kochkin, Tyler, & Born 2011; Nondahl et al., 2011; Shargorodsky, Curhan & Farwell, 2010). In Asia, the prevalence of tinnitus ranges from 2.6% to 19.7% (Park et al., 2014; Khedr et al., 2010; Thirunavukkarasu & Geetha, 2015). Epidemiological studies in other countries have also reported prevalence rates that range from 4.6% to 30% (Jallessi et al., 2013; Quaranta, Assennato, & Sallustio, 1996; Park & Moon 2014; Sindhusake et al., 2003). Tinnitus is a common symptom reported in approximately 70-90% of individuals with hearing impairment (Nondahl et al., 2011), and 10-15% of individuals with normal hearing sensitivity also report of tinnitus (Shargorodsky, Curhan, & Farwell 2010; Heller, 2003). The individuals with tinnitus also report of a moderate degree of annoyance, anxiety, depression, and cognitive processing problems along with hearing difficulties (Baguley, Andersson, McFerran & McKenna, 2013).

Multiple theories have attempted to understand the pathophysiology of tinnitus. Considering the heterogeneous nature of tinnitus, there may not be a single rationale for the generation of tinnitus. Several studies indicate that there could be an influence of the central auditory nervous system in the production of tinnitus. It is suggested that an increase in the spontaneous firing rate could be one of the reasons for tinnitus. This has been attributed to the selective damage of the inner hair cells than the outer hair cells, which affects the spontaneous neural firing rate. This can lead to automatic neurotransmitter release from the synaptic regions leading to tinnitus (Dallos & Harris, 1978). Also, other theories propose that tinnitus is generated due to the synchronization of neural activity, which is pathological, neural fibers getting reorganized, increased burst firing rates, and the hypersensitivity of nerves (Eggermont, 1990; Martin, 1995; Ochi & Eggermont, 1996). Differential damage to the outer hair cells compared to inner hair cells (discordant-dysfunction theory) is also reported as one of the causes at the level of cochlea leading to tinnitus (Jastreboff, 1990, 1995; Stypulkowski, 1990). One of the popular theories which explain the generation of tinnitus in individuals with normal hearing is the 'Neurophysiological model of tinnitus' (Jastreboff, 1990, 1995). The model suggests that tinnitus occurs because of its association with negative emotions. The tinnitus activates the limbic system and the autonomic nervous system, which makes the tinnitus to become pathological. An adverse reaction to tinnitus reinforces feelings, which increases the severity of tinnitus. The increased attention provided to the tinnitus makes it difficult to ignore and starts affecting the daily life functioning (Jastreboff, 1990, 1995).

Tinnitus is also associated with difficulty in sleeping, anxiety, stress, and reduced cognitive performance (Baguley et al., 2013). Considering the psychological co-morbidity of tinnitus, several treatment techniques are proposed in the literature. The most popular treatment approaches include tinnitus retraining therapy (TRT) (Jastreboff, 1995; Wu et al., 2018) and cognitive behavioral therapy (CBT) (Jun & Park, 2013) and a combination of TRT and CBT (Cima et al., 2012). Recently, it is also attempted to determine the efficacy of 'third wave' cognitive and behavioral therapies, which focuses on accepting the situation, such as mindfulness-based therapy. The recent behavioral therapy approaches of CBT have also attempted to check the efficacy of mindfulness-based therapy techniques for the intervention of tinnitus. Mindfulness-based therapy approach can help individuals with tinnitus to accept tinnitus and live in the present (Kabat-Zinn 1982; Segal & Walsh, 2016). It can help individuals with tinnitus to reduce their everyday tinnitus related distress. Tinnitus is known to cause several emotional problems and affects quality of life (Jastreboff, 1990). Mindfulness-based therapy can help them to reduce psychological difficulties and assist in improved quality of life. It could be an efficient technique in managing the tinnitus-related distress in the everyday life of a person with tinnitus.

MINDFULNESS-BASED THERAPY FOR THE MANAGEMENT OF TINNITUS

Mindfulness therapy refers to experience the present moment by providing a quality of attention (Ludwig & Kabat-Zinn, 2008). This helps to control the attention system, which significantly contributes to getting relief from the adverse reactions. Mindfulness therapy was first introduced to Western culture by Kabat-Zinn (1982). The traditional meditation techniques used in the east were transformed into systematic training modules, and a program was developed referred to as Mindfulness-Based Stress Reduction (MBSR) (Kabat-Zinn 1982; Segal & Walsh, 2016). Segal and Walsh (2016) combined the approaches of mindfulness training and CBT and developed a program called Mindfulness-Based Cognitive Therapy (MBCT). Thus, there are several standard mindfulness-based therapy programs, such as MBSR or MBCT with others (Kuyken et al., 2008). All the modern mindfulness-based treatments are referred to together as mindfulness-based interventions (MBIs) (Shapiro, Greenberg, Pedrelli, de Jong, & Desbordes, 2018). These therapies are used extensively in the medical and psychological fields to reduce stress, depression, and chronic pain (Ludwig & Kabat-Zinn, 2008; Kuyken et al., 2008). Considering that tinnitus is also associated with psychological problems, mindfulness therapy may help them to get relief from the tinnitus (Moller, 2007).

Mindfulness therapy works by providing voluntary attention to the present situation with a positive mindset and accepting the reality with a positive outlook (Segal, Williams & Teasdale, 2012). It is assumed that this can foster optimism and reduces negative emotions such as stress, anxiety, and depression, which are associated with tinnitus (Cima, Crombez, & Vlaeyen, 2011). The therapy improves the metacognitive awareness of the situation, which helps in overcoming the adverse situation with a positive attitude. This would create a different relationship between the tinnitus and the emotions associated with it and ensure that they are less destructive to the patients (Cima et al., 2011). The common coping mechanism used by individuals with tinnitus is to escape from the situations of concern because they fear the tinnitus. They avoid silent situations and try to keep themselves busy to avoid the perception of tinnitus because it affects their quality of life (Hesser & Andersson, 2009). However, mindfulness therapy encourages encountering such difficult situations and accepts the reality of tinnitus. This acceptance would reduce the negative associations and thus reduces stress, anxiety, and improves the quality of life (Westin, Hayes & Andersson, 2008). Therefore, by encouraging acceptance of tinnitus and reduction in the avoidance may significantly help individuals with tinnitus to cope up with the problem.

There are several studies which have attempted to study the efficacy of mindfulness therapy in different conditions, and they have reported benefit similar to cognitive or behavioral therapy (Crowe et al., 2016). However, there is minimal literature where an attempt is made to study the advantages of mindfulness therapy in the management of tinnitus (Philippot, Nef, Clauw, Romree & Segal, 2012; Kreuzer et al., 2012; McKenna, Marks, Hallsworth & Schaette, 2017). But the studies have reported that there is a significant benefit with mindfulness-based therapy in individuals with tinnitus. The first attempt to treat tinnitus with mindfulness-based training was made by Sadlier et al. (2008) on 25 patients with tinnitus. They carried out traditional CBT training in the initial sessions and added mindfulness-based meditation from the third session. They reported an improvement in tinnitus, and mindfulness training was a part of the overall CBT approach used by them. Roland et al. (2015) attempted to study the effect of mindfulness-based therapy on 13 patients who were suffering from chronic tinnitus. They reported that there was a reduction in the severity of the tinnitus. They also carried out functional magnetic resonance imaging (fMRI) to know the changes in the cortex with mindfulness training. They found that the attention network in the cortex was more connected in individuals with tinnitus, which was a biomarker

for tinnitus. With mindfulness training, they found a reduction in these connections, suggesting an improvement in tinnitus perception, which is represented even at the cortical level.

Gans et al. (2014) provided mindfulness-based therapy for eight patients with chronic tinnitus. The treatment was provided for eight weeks. The psychological tests, the test of the severity of tinnitus, and overall quality of life were measured pre and post-therapy. They reported that there was an improvement in all the above measures suggesting the efficacy of mindfulness-based therapy. However, they proposed to carry out studies on a large sample size with follow-ups. McKenna et al. (2017) carried out a Randomized Control Trial (RCT) to check the benefit of MBCT in the management of tinnitus. They reported that there was a significant reduction in the severity of tinnitus, anxiety, and depression. Most importantly, the treatment was beneficial irrespective of the degree of tinnitus and the degree of hearing loss before therapy. Thus, MBCT was found to be an effective strategy in the management of chronic tinnitus based on RCT based study.

Philippot et al. (2012) also carried out a randomized control trial to determine the efficacy of MBCT as a management tool in patients suffering from tinnitus. All the participants in the study were provided with psychological education about tinnitus. Also, they were provided with mindfulness training for individuals with chronic tinnitus. The results of the study indicated that there was a significant reduction in the negative association with tinnitus, and it improved the quality of life. They reported that the effect was a long term as there was the maintenance of the impact of mindfulness training. They suggested that the cognitive approach of managing tinnitus without associating adverse reactions to it helped the patients to get relief from tinnitus. Thus, psycho-education about tinnitus and mindfulness training based meditation approach can help individuals overcome the adverse effect of tinnitus.

Kreuzer et al. (2012) also carried out a randomized controlled pilot study to study the benefit of mindfulness training in treating chronic tinnitus. The components of mindfulness training, such as meditation, breathing exercises, and self-massage, were used in the study. The improvement in training was determined using the German version of the Tinnitus Questionnaire. The results of the study demonstrated a reduction in tinnitus-related handicap and showed improvement in the quality of life. The study showed an effect size of 0.8, which suggests a strong effect of mindfulness training in the reduction of tinnitus. Mindfulness training significantly alters the approach of the mind while reacting to the tinnitus. The improved cognitive strategy in managing tinnitus helps them to get relief from the tinnitus.

Thus, the above mentioned randomized controlled studies provided compelling and valuable insights that mindfulness training should be used as an essential tool in the management of tinnitus. However, the studies were done on a limited sample size, which questions the generalization of the results. Considering this limitation, attempts were made to study the efficacy of mindfulness training in a larger sample size (McKenna, Marks, & Vogt, 2018). McKenna et al. (2018) considered 182 adults with chronic tinnitus, and mindfulness training was provided to them for eight weeks. They attempted to determine the changes in the tinnitus-related handicap, psychological problems, and acceptance of tinnitus. The results showed that there were improvements in all the above-mentioned domains with MBCT. In almost 50% of patients, there was a significant improvement in tinnitus-related handicap. Also, in nearly 41.2% of patients, there was a reduction in the psychological problems associated with tinnitus. All of them had a better acceptance of tinnitus, and they used a better approach to managing tinnitus, which improved their quality of life drastically. Thus, considering the large sample pool, we have evidence that MBCT can be a useful therapeutic tool for the management of tinnitus.

The above conclusion is also supported by a recent systematic review on mindfulness-based interventions in the management of tinnitus by Rademaker, Stegeman, Ho-Kang-Yo, Stokroos, and Smit (2019).

Rademaker et al. (2019) reported that all the studies showed relief from tinnitus perception even with the heterogeneity of the patients. The different study designs and outcome measures reported similar results suggesting the efficacy of mindfulness-based training. All the studies were of moderate to high quality, which also included randomized controlled studies, which further strengthens the validation and generalization of the results. However, further studies on long term follow up with mindfulness therapy as a management tool for tinnitus is essential.

LIMITATIONS

One of the significant limitations of mindfulness-based interventions is the motivation of the patient. As the treatment requires sufficient time to demonstrate the progress, sustaining motivation for a long time could be difficult for some patients. As the procedure does not give an immediate result, the therapist should always motivate the patient for a better outcome. Also, the heterogeneity of patients with tinnitus affects the efficacy of the intervention (Rademaker et al., 2019). It is also essential that the long term benefit with the mindfulness-based intervention is studied in a large sample size (McKenna et al., 2018).

CONCLUSION

Mindfulness-based interventions are one of the recent techniques which have proven to be very useful in the management of tinnitus. Thus, psychologists and audiologists dealing with individuals suffering from tinnitus can attempt this technique in management. The mindfulness-based training can be combined with the formal CBT, and TRT approaches to enhance the treatment of tinnitus further. The efficacy of such combination therapies and long term follow up with the mindfulness-based interventions are necessary for better generalization.

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KEY TERMS AND DEFINITIONS

Auditory Hallucinations: Perception of auditory stimuli in the ear/head mainly due to some neurological/psychological conditions.

Cognitive Behavioral Therapy: A behaviour modification technique which involves replacing negative thoughts with more rationale and positive thoughts which is also used a management technique for tinnitus.

Mindfulness Meditation: Focusing your attention to one thing/thought and trying to be in the present through relaxation methods.

Mindfulness Therapy: Mindfulness therapy refers to experience the present moment by providing a quality of attention.

Tinnitus: Sensation of sound in the ears without any external stimuli. The sound could be perceived as hissing, buzzing, ringing, etc.

Chapter 12

Medical Burnout: Is Mindfulness an Effective Coping Strategy?

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ABSTRACT

The WHO defines burnout as an inadequate response to chronic workplace stress, with emotional exhaustion, depersonalization, and reduced professional efficacy. Its growing incidence among physicians may adversely affect their personal and professional lives. Mindfulness aims to reach a state of consciousness in which one's attention is purposefully focused on the present. This chapter uses a narrative review of articles published between 2015 and 2019, with the MeSH terms "Burnout," "Professional," "Mindfulness," and "Health Personnel." Sixty-six articles were obtained, of which one meta-analysis, two systematic reviews, and two randomized clinical trials (RCT) met the inclusion criteria. All studies showed some degree of burnout improvement, more statistically significant as regards emotional exhaustion. One RCT also showed a reduction in heart rate. Available evidence suggests that mindfulness may improve physicians' well-being, mental health, and resilience, asserting itself as a possible coping strategy for burnout, namely regarding emotional exhaustion.

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INTRODUCTION

According to the definition updated in 2019 by the World Health Organization (WHO) and included in the 11th Review of the *International Classification of Diseases* (ICD-11), burnout syndrome is characterized by an inadequate and maladaptive response to chronic stress in the workplace, encompassing three dimensions: emotional exhaustion, depersonalization/cynicism and decreased efficacy or professional achievement (WHO, 2019). There has been an increase in the incidence of burnout in jobs associated with high levels of stress, including among physicians. According to the *2018 Survey of America's Physicians: Practice Patterns and Perspectives* (The Physicians Foundation, 2018), 78% of American physicians experienced burnout symptoms. In the United Kingdom, and according to a survey conducted in 2019 by the British Medical Association (BMA, 2019), 80% of doctors were at high or very high risk of burnout, with medical residents being at greatest risk, followed by general practitioners. The panorama in Portugal has also been the subject of research. A joint report of the Portuguese Medical Association and the Institute of Social Sciences of the University of Lisbon (Vala *et al.*, 2017), which studied the prevalence of the three major burnout dimensions in a sample of 9167 physicians, found that 66% had a high level of emotional exhaustion, 39% a high level of depersonalization, and 30% a high level of reduced professional efficacy, with Family Medicine occupying a top position in the latter dimension. Additionally, as stated in an article published in *Acta Médica Portuguesa* [Portuguese Medical Association's Scientific Journal] (Marôco *et al.*, 2016), burnout has been systematically associated with multiple unfavorable outcomes, such as: higher probability of medical error, higher rates of absenteeism and sick leave, increased interpersonal conflicts with managers, coworkers and family, alcohol and other psychotropic abuse, adoption of more sedentary lifestyles and harmful effects on mental health (such as sleep disorders, emotional lability, irritability and anxiety). In fact, burnout in doctors is increasingly recognized as a public health issue in many developed countries, not only because it affects their personal lives and job satisfaction, but also because it creates great pressure on health systems, with an impact on the safety and care provided to patients.

Mindfulness is a concept with Buddhist roots which has been coming into prominence in Western societies. It can be defined as a state of consciousness resulting from attention purposely focused on the experience of the events and emotions of the present, accepting them as they emerge, with compassion and without value judgments (Luken & Sammons, 2016; Kabat-Zinn, 2003). The practice of mindfulness encompasses several different types of exercises, such as conscious eating, meditation, body scanning and yoga, and can be done informally - through reading books, online research and conversation with other people - or more formally - by enrolling in mindfulness courses, participating in group spiritual practices or enrolling in structured programs. Most of the formal programs currently available follow a mindfulness-based stress reduction (MBSR) perspective, standardized by Jon Kabat-Zinn in the late 1970s (Kabat-Zinn, 1982), through which participants become familiar with that practice in an educational way and through peer discussion, typically over eight to ten weekly group sessions and a full-day retreat. Several studies have suggested mindfulness as a possible strategy for preventing and controlling burnout symptoms, with health professionals being one of the most frequently studied groups in recent years. In this context, the aim of this study was to review the evidence regarding the efficacy of mindfulness in the management of burnout in physicians.

METHODOLOGY

This study focused on a narrative review of meta-analyses (MA), systematic reviews (SR), reviews, randomized clinical trials (RCT), observational studies (OS) and clinical guidelines. The authors conducted their research in the MEDLINE/Pubmed database, EMBASE/The Cochrane Library, National Guideline Clearinghouse and NICE. Selected studies were carried out in humans and published between January 1, 2015 and June 30, 2019, in English, Portuguese and Spanish, using the Medical Subject Headings (MeSH) terms “Burnout, Professional”, “Mindfulness” and “Health Personnel”. The authors were in full agreement as to the study selection criteria. The study population comprised health professionals, including physicians (irrespective of their professional category), and a comparison was made between those who were instructed to practice mindfulness and those who did not. The study outcome was the improvement of symptoms associated with burnout. Inclusion criteria were studies in which participants had no preexisting psychiatric conditions and/or did not take any psychotropic medication. The following studies were excluded: those including only nurses or other non-medical health professionals, duplicate and/or opinion articles, classic literature reviews, studies included in the MA/RS or those inconsistent with the purpose of the review. The Strength of Recommendation Taxonomy (SORT) scale of the American Academy of Family Physicians (Ebell *et al.*, 2004) was used to assign the levels of evidence (LE) and the strength of recommendation. The authors read the articles in their entirety and assessed their quality and LE.

FINDINGS

The authors' research produced a total of 66 articles, of which 53 were excluded due to the type of article, language, date of publication, non-compliance with the inclusion criteria mentioned above and duplication. After reading their titles and abstracts, seven ($n=7$) of the remaining 13 articles were excluded as they were inconsistent with the purpose of the study. After reading the remaining six articles in their entirety, one was excluded and five articles were selected for inclusion in this review: one MA with RS, two RS and two RCT. Figure 1 represents the selection flowchart of the studies. The summary description of the articles included can be found in Table 1.

The MA and SR by West *et al.* (West *et al.*, 2016) (LE 2) aimed to identify effective strategies for the prevention and reduction of burnout in physicians. A total of 15 RCT and 37 OS were selected, which included a total of 3,630 physicians (including family physicians). Three of the RCT and 17 of the OS addressed organizational strategies (such as the reduction of work shifts), while 12 of the RCT and 20 of the OS addressed individual strategies, and mindfulness was included in this last group of articles. The other individual strategies studied were stress management and self-care, training of communication skills and small discussion groups. Almost all studies used the Maslach Burnout Inventory (MBI) as an evaluation instrument after the intervention, and heterogeneity was represented by “ I^2 ”. For the 20 OS that included mindfulness, and compared to the other strategies implemented at the individual level, it was observed in the intervention groups that burnout, as a whole, decreased slightly, from 34% to 28% (6% [-2 to 14]; $p=0.14$; $I^2=0\%$); in the emotional exhaustion dimension, the reduction was higher, from 24.64 points to 19.96 points (4.68 points [2.84-6.51]; $p<0.0001$; $I^2=47\%$); as well as in depersonalization, in which the reduction went from 8.54 points to 6.53 points (2.01 points [1.34-2.67]; $p<0.0001$; $I^2=0\%$).

Thus, it was concluded that, with regard to mindfulness, there seems to be a reduction in burnout levels in physicians, which is statistically significant in terms of emotional exhaustion and depersonalization.

The SR by Lomas *et al.* (Lomas *et al.*, 2017) (LE 2) focused on the impact of MBSR programs on the well-being of health professionals by reference to several indicators, including burnout, mainly using MBI as an evaluation method. A total of 81 articles were selected [subdivided into 66 interventional studies (IS) and 15 OS], and 3,805 health professionals of various classes were covered, including physicians. In general, mindfulness interventions had a positive effect on all outcomes evaluated, seemingly improving mental health, job satisfaction and productivity. However, there were areas in which the findings were more ambiguous, as in the case of burnout. Of the 22 IS that studied it, 11 showed a significant improvement, while the remaining 11 did not. However, the overall dimension of this effect was low to average. Additionally, three OS found an inverse correlation between burnout and mindfulness, which may be due to the relatively small samples which they used. When considering the three dimensions of burnout individually, several studies concluded that mindfulness-based interventions tended to have a greater positive effect, although not very significant, in emotional exhaustion, compared to the other two aspects (depersonalization and reduced professional efficacy).

Figure 1. Study selection flowchart

Source: Authors' production.

MA=meta-analysis; MeSH=medical subject headings; RCT=randomized clinical trial; SR=systematic review.

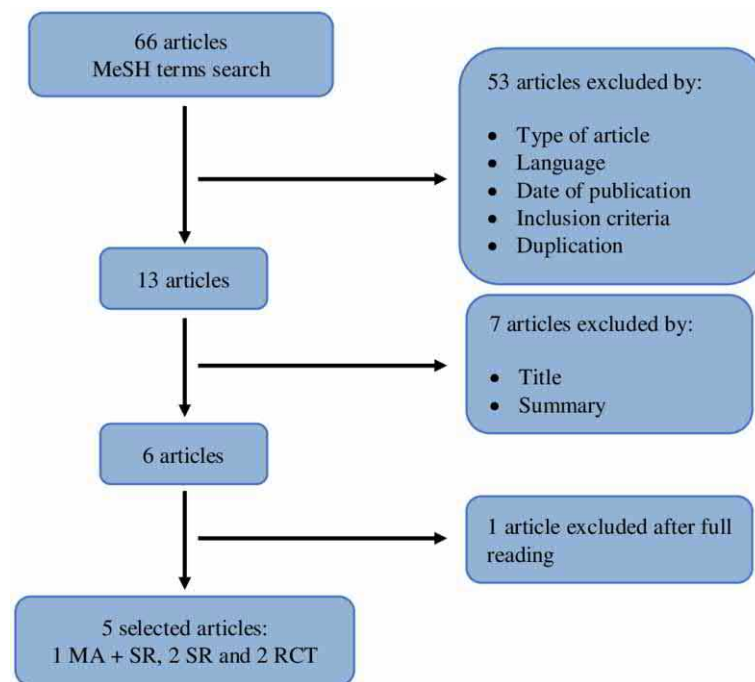


Table 1. Brief description of the included studies

Reference	Population	Intervention	Findings	LE
West <i>et al.</i> , 2016 MA + SR Studies published until January 15, 2016.	Medical residents and specialists (several specialties). n=3630 52 studies: • 15 RCT, n=716 Additional follow-up in 5 of these (from 19 months to almost 4 years). • 37 OS, n=2914 Additional follow-up in 4 of these (from 1 month to 2 years).	Objective: Identification of effective strategies to reduce/prevent burnout in physicians. Individual strategies: mindfulness, stress management and self-care, training of communication skills and small discussion groups. Organizational strategies: shorter work shifts, changes in clinical processes, regulation of working hours and practice improvement programs. Evaluation: MBI application after interventions. Outcomes: overall burnout and emotional exhaustion and depersonalization scores.	• Overall burnout: Significant decrease from 54% to 44% (10% [95% CI 5-14]; $p<0.0001$; $F=1.5\%$), greater effectiveness for organizational strategies; • With mindfulness: minor decrease, from 34% to 28% (6% [-2 to 14]; $p=0.14$; $F=0\%$). • Emotional exhaustion: Significant reduction from 23.82 to 21.17 points (2.65 points [95% CI 1.67-3.64]; $p<0.001$; $F=82\%$); • With mindfulness: greater reduction, from 24.64 to 19.96 points (4.68 points [2.84-6.51]; $p<0.0001$; $F=47\%$). • Depersonalization: Significant reduction from 9.05 to 8.41 points (0.64 points [95% CI 0.15-1.14]; $p=0.01$; $F=58\%$); • With mindfulness: larger reduction, from 8.54 to 6.53 points (2.01 points [1.34-2.67]; $p<0.0001$; $F=0\%$). • Conclusion: both organizational and individual strategies (mindfulness being one of the latter) can reduce burnout in physicians, namely regarding emotional exhaustion and depersonalization.	2
Lomas <i>et al.</i> , 2017 SR Studies published until January 10, 2016.	Several categories of health professionals. n=3805 81 articles: • 66 IS; 46 NRCT (convenience samples) + 20 RCT, n=2645. • 15 OS; 8 correlation analyses + 6 qualitative analyses + 1 mixed analysis, n=1160.	Objective: to evaluate the impact of MBSR programs on several outcomes related to the well-being of health professionals: • Mindfulness and awareness, evaluated through the MAAS and FFMQ scales; • Anxiety, assessed using the STAI and DASS scales; • Burnout, using the MBI; • Depression; • Stress and tension.	• Mindfulness and conscience: reduced to medium effect: in 33 IS, there was an increase in 27; no significant improvement in 6; • Anxiety: medium effect; improvement in 9 studies; no variation in 6; worsening in 1; • Burnout: reduced to medium effect: in 22 IS, there was a significant improvement in 11; no variation in the other 11; inverse correlation in 3 NRCT; MBSR showed a greater positive effect, although not significant, on emotional exhaustion, compared to the other two dimensions; • Depression: mean effect: in 16 IS, there was a significant improvement in 10; no significant improvement in 6; inverse correlation in the OS; • Stress and tension: reduced to medium effect: in 37 IS, there was a significant improvement in 25; no significant improvement in 12; Conclusion: overall, mindfulness seems to have a positive impact on most parameters related to well-being in health professionals, although its effect is more ambiguous regarding burnout.	2
Gilmarin <i>et al.</i> , 2017 SR Studies published until February 9, 2016 (search updated on January 24, 2017).	Doctors and nurses allocated to hospital care. Age 3 18 years old. n=833 78% of participants were female. 14 studies: 7 RCT + 7 OS.	Objective: to evaluate the effectiveness of brief mindfulness interventions (<4 hours) regarding: • Well-being: self-assessment of stress, anxiety, depression, resilience, mindfulness, relaxation or burnout symptoms; satisfaction and quality of life; • Behavior: performance in academic tasks, attention, changes in clinical practice or misdiagnosis. Interventions: meditation techniques, breathing exercises, relaxation methods guided by imagination, yoga, desensitization (personal or virtual relaxation modalities).	• Well-being: significant improvement in the well-being in 9 studies; statistically significant improvement of stress in 5 studies; improvement in anxiety scales (4 studies), resilience (2 studies), mindfulness (3 studies), <i>burnout</i> symptoms (1 study); improvement in relaxation capacity, quality of life and satisfaction (2 studies). Evaluation scales: PSS, MBI, SAS, the <i>Comor-Davidson</i> Resilience Scale and MAAS. • Behavior: mindfulness interventions showed no significant effect in this dimension. • Other benefits: mindfulness practice does not compromise the provision of patient care and entails a reduced monetary investment. Disadvantage: the time spent and the scheduling of the sessions can compromise the commitment of professionals. Conclusion: Brief mindfulness interventions can be effective in improving the well-being of health professionals. However, schedule adjustment is important in order to increase their participation.	2

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Table 1. Continued

Reference	Population	Intervention	Findings	LE
Ireland <i>et al.</i> , 2017 RCT	Medical residents. n=44 Average follow-up time: 10 weeks. Average age: 26.88 years old. Australia	Objective: to evaluate the effectiveness of mindfulness-based interventions in stress and burnout reduction in physicians; Implementation of a resilience and mindfulness program, assessing its impact on burnout and stress levels. Intervention: weekly 1-hour workshop vs an extra hour of weekly rest, for 10 weeks. A questionnaire was applied prior to the intervention; variables were assessed using the CBI (burnout) and PSS (stress) questionnaires.	- Participants in the intervention group reported a more significant improvement in burnout ($p=0.072$) and stress ($p=0.007$) levels compared to the control group (stress: $p=0.302$; burnout: $p=0.222$). - Mindfulness advantages: easy and flexible implementation; it can be practiced with no restrictions as to time or place; it is self-directed and noninvasive; - A potential implementation advantage in pre and postgraduate medical training programs was identified. Conclusion: Mindfulness can be a way to improve mental health (specifically regarding stress and burnout) and an effective strategy for physicians to build resilience.	2
Amutio <i>et al.</i> , 2015 RCT	Physicians. n=42 Average follow-up time: 12 months. Average age: 47.31 years old. Spain	Objective: To evaluate the impact of a MBSR program on the well-being of physicians; Intervention: Implementation of a MBSR program (8-week intervention period + 10-month maintenance period) assessing outcomes related to mindfulness in the pre- and post-intervention phases and at the end of the maintenance period; Assessment scales: MBI, FFMQ, qualitative questionnaire (personal assessment and level of satisfaction related to the program); heart rate and blood pressure.	- There was a significant reduction in emotional exhaustion ($p=0.05$), heart rate and blood pressure ($p<0.001$) in the experimental group after the intervention phase; - The main effects after the maintenance phase are higher than those at the end of the intervention phase, particularly regarding mindfulness and systolic blood pressure. - The MBSR program is a useful tool to promote relaxation, self-care and well-being in physicians, with a potential benefit in the doctor-patient relationship. - It was found that these effects persisted one year after the intervention. Conclusion: Mindfulness training can be a viable tool to promote self-care and well-being.	2

Source: Authors' production

CBI=Copenhagen Burnout Inventory; CI=confidence interval; DASS=Depression Anxiety Stress Scale; FFMQ=FiveFacets of Mindfulness Questionnaire; IS=interventional study; LE=level of evidence; LE 2=limited quality study, patient-oriented evidence; MA=meta-analysis; MAAS=Mindful Attention and Awareness Scale; MBI=Maslach Burnout Inventory; MBSR=mindfulness-based stress reduction; NRCT=non-randomized clinical trial; OS=observational study; PSS=Perceived Stress Scale; RCT=randomized clinical trial; SAS=Smith Anxiety Scale; SR=systematic review; STAI=State-Trait Anxiety Inventory.

The SR by Gilmartin *et al.* (Gilmartin *et al.*, 2017) (LE 2) studied the effect of the practice of brief mindfulness interventions (less than four hours) on the well-being (stress) and behavior (attention and diagnostic error) of health professionals. Fourteen studies, seven RCT and seven OS were selected, and the study population included specialist physicians, internal physicians, nurses and nursing students, covering 833 professionals, of whom 78% were women. The practice of these interventions proved to reduce stress in five studies and anxiety in four, and were adjusted to the professionals' schedule. The authors argue that the practice of brief interventions is promising in the perception of stress and anxiety, improving the symptoms of anxiety, burnout and depression among professionals. Additional benefits include the fact that their practice does not compromise the provision of patient care and entails a reduced monetary investment. However, they stress that it is important to take into account the variability of the interventions addressed in this SR and that none of the studies demonstrated improvement of the behavioral component. Thus, the practice of mindfulness may be beneficial for the well-being of professionals. Nevertheless, the authors note that schedule adjustment is crucial.

The RCT by Ireland *et al.* (Ireland *et al.*, 2017) (LE 2) aimed to assess the effectiveness of a mindfulness-based intervention in reducing stress and burnout in medical residents working in the emergency department of a reference hospital. The sample included 44 physicians, with a mean age of 26.88 years, 64% of whom were female, randomly distributed across the experimental group ($n=23$), who held a weekly one-hour workshop, and the control group ($n=21$), who were offered an extra hour of weekly rest; the follow-up period was 10 weeks. There was a significant improvement in stress reduction in the intervention group ($p=0.007$) and partially significant in the reduction of burnout ($p=0.072$) in the intervention group. The control group showed an increase in stress and burnout levels over follow-up time. These results are in line with the study by Krasner *et al.* (Krasner *et al.*, 2009), based on an eight-week program, which showed an improvement in mindfulness, burnout, empathy and mood.

The RCT by Amutio *et al.* (Amutio *et al.*, 2015) (LE 2) aimed to assess the efficacy and acceptance of the application of an MBSR program in the mitigation of occupational stress-related symptoms: burnout, heart rate and blood pressure. The sample included 42 physicians, with a mean age of 47.31 years, 57.1% of whom were female, randomly distributed across the experimental group ($n=21$) and control group ($n=21$); the follow-up period was 12 months (eight weeks of intervention and 10 months of maintenance). After the intervention phase, there was a significant reduction in emotional exhaustion ($p=0.05$), heart rate and blood pressure ($p<0.001$) in the experimental group. After the maintenance phase, the main effects were higher than those at the end of the intervention phase, particularly for mindfulness and systolic blood pressure, which suggests that continued practice during the intervention phase is essential for medium and long-term efficacy. This study showed that the MBSR program is a promising tool in the prevention of occupational stress-related symptoms among physicians, having a positive impact on their health and well-being, with a potential beneficial effect on the doctor-patient relationship and on the care provided. These findings corroborate previous studies (Anagnostopoulos *et al.*, 2012; Fuertes *et al.*, 2015; Galantino *et al.*, 2005; Krasner *et al.*, 2009).

A very recent study (not included in the original search) by Vaz de Almeida, Rodrigues, Rodrigues, Pinheiro and Nunes (Vaz de Almeida *et al.*, 2021) measured and evaluated the perception of health professionals (dentists and oral hygienists) and their patients about factors of stress and well-being associated with mindfulness. Results show that health professionals should use techniques and resources to develop a calmer, more positive, and less stressful therapeutic relationship in dental medicine. In this regard, the authors also emphasize the importance of both the role of organizations and the patient (Vaz de Almeida *et al.*, 2021, p. 10). This study comprised 306 dentists, among which 60% are satisfied

with their job. Faced with an emotionally difficult situation, 82% of dentists experience physiological changes and a subsequent slower recovery. What's more, 80% of dentists seem to be able to tackle difficult situations, and more than 57% of them would rather see such difficult situations as some sort of opportunity. Finally, 90% are aware of their contribution to the well-being of others.

DISCUSSION

The available evidence suggests that mindfulness-based interventions are able to improve the well-being, mental health, work performance and resilience of physicians, affirming itself as a possible coping strategy for burnout, namely regarding emotional management (SORT B) (Amutio *et al.*, 2015; Gilmartin *et al.*, 2017; Ireland *et al.*, 2017; Lomas *et al.*, 2017; West *et al.*, 2016), and eventually also in depersonalization (West *et al.*, 2016). Additionally, the use of organizational and individual strategies (mindfulness being one of the latter) seem to be effective in reducing burnout parameters in physicians, although no particular strategy has shown to be better than the others, and it is probably necessary to study their concomitant use (West *et al.*, 2016).

Mindfulness seems to be a potential resource for the medical population, since it is a noninvasive, self-directed and low-cost practice that can be performed anywhere or anytime (Ireland *et al.*, 2017). The continued practice of mindfulness seems to be essential for its mid- and long-term effectiveness (Amutio *et al.*, 2015). Additional coping strategies were identified, such as the improvement in self-perception of stress and anxiety, participation in discussion groups and adjustment of working hours by employers (West *et al.*, 2016; Gilmartin *et al.*, 2017). An association between the practice of mindfulness and the reduction of heart rate was documented in one of the studies, therefore there may also be a potential role for mindfulness in cardiovascular disease protection (Amutio *et al.*, 2015).

There are, however, some limitations to be considered across all studies. Firstly, there is the need for a greater number of studies focusing on this topic and involving larger population samples (Amutio *et al.*, 2015; Gilmartin *et al.*, 2017; Ireland *et al.*, 2017; Lomas *et al.*, 2017; West *et al.*, 2016). Secondly, the lack of studies with mid- and long-term follow-up data makes it difficult to analyze the potential lasting efficacy of mindfulness (West *et al.*, 2016). Thirdly, it should be noted that the heterogeneity of mindfulness programs may limit the health professionals' willingness to take part in these studies (Lomas *et al.*, 2017; West *et al.*, 2016).

It is the authors' understanding that, among the studies analyzed in this review, there seems to be insufficient data to suggest that one specific mindfulness technique is more effective than the others in the management of burnout symptoms. This is because the studies in question have not provided an individual analysis on each technique, but rather did so as a whole. The authors are also not able to provide feedback on personal experience with mindfulness, since they have not implemented any type of individual or organizational mindfulness program in their daily practice, but are certainly eager to do so in the future. It should also be noted that more studies have probably been published in the meantime. Therefore, new data may be available on the effects of mindfulness in medical burnout, which must be considered when discussing this topic.

CONCLUSION AND OUTLOOK

The increasing incidence of burnout among physicians can have harmful consequences both for the health of professionals and for clinical practice, with repercussions on the doctor-patient relationship and on the quality of health care provided. Accordingly, it is imperative that medical burnout prevention becomes a major focus of political and health agendas. The growing popularity of mindfulness in Western countries has sparked an interest in examining the effect of this practice on burnout, namely on health professionals, and it is an ongoing topic of study.

According to the articles included in this review, further studies will be needed in the future to determine the advantage of implementing mindfulness programs in pre and postgraduate medical training (Ireland *et al.*, 2017). Likewise, it will be important to establish which specific intervention modalities are best suited for doctors and their employers, (Gilmartin *et al.*, 2017; Ireland *et al.*, 2017) as well as to understand whether the processes involved in the development of these interventions may influence their effectiveness (West *et al.*, 2016). Last but not least, it would also be useful for participants to revisit MBSR programs so as to identify the optimal frequency that leads to greater therapeutic effects (West *et al.*, 2016).

Finally, the authors would like to highlight the relevance of preventing burnout in family doctors, who seem to be at a particularly high risk of burnout. Research in this specific area is therefore expected to benefit not just their health, but also the health of patients, their families and the communities to which they belong.

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KEY TERMS AND DEFINITIONS

Burnout: A syndrome resulting from chronic workplace stress, encompassing three dimensions: emotional exhaustion, depersonalization and reduced professional efficacy.

Health Personnel: People who provide health services, both as individual practitioners and employees of health institutions and programs.

Meta-Analysis: A quantitative statistical analysis of several similar studies that aims to test the pooled data for statistical significance.

Mindfulness: A state of awareness that comes from paying attention, on purpose, and nonjudgmentally, to present events.

Randomized Clinical Trial: A study design in which patients are randomly assigned either to a group that will receive an experimental treatment, or to another one that will receive a comparison or standard-of-care treatment, or a placebo.

Strength of Recommendation Taxonomy (SORT): A grading scale published on the American Family Physician journal in 2004 that allows authors to rate studies based on the quality, quantity and consistency of evidence supporting them.

Systematic Review: A review of a specific research question that uses comprehensive and reproducible methods in order to identify, select and critically appraise all relevant research, collecting and analyzing data from them.

Chapter 13

Mindfulness–Based Well–Being Interventions in Organizations and the COVID–19 Pandemic

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ABSTRACT

Dramatic changes in social, economic, and working life have occurred with the COVID-19 pandemic. These changes cause stress for employees. Therefore, it is important to implement cost-effective and purposive interventions targeting employee well-being during the COVID-19 pandemic. One of these interventions is Mindfulness-Based Interventions (MBIs). MBIs are generally implemented as a face to face with 8-session program. However, in the COVID-19 pandemic, remote work has been adopted widely by organizations, causing an urgent need for digital well-being interventions. This study aims to investigate effectiveness of digital mindfulness-based interventions on employees' well-being during the COVID-19 pandemic. To do this, the effect of the COVID-19 pandemic on employee well-being will be explained in the first part. In the second part, mindfulness and mindfulness-based interventions will be discussed. In the last part, digital mindfulness interventions and their effects on employee well-being during the COVID-19 pandemic will be clarified.

INTRODUCTION

The new coronavirus disease is a pandemic that have developed beyond human control, like all other diseases and natural disasters. The uncertainty created by the uncontrollability of this pandemic makes individuals worry (Zabaniotou, 2020). This uncertainty has caused psychological distress and mental disorder symptoms (Bao et al., 2020). Both the fear, anxiety and anger experienced due to the pandemic and the stress experienced by individuals diagnosed with or suspected of COVID-19 inevitably reflect on the working life (Yu et al., 2021).

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The COVID-19 pandemic has significantly affected many living areas, especially daily life and social relations (Suppawittaya et al., 2020). One of these living areas is working life. In order to prevent the transmission of the COVID-19 virus, remote work has been mandatory in many countries (Carnevale & Hatak, 2020). With the help of remote work, employees have been enabled to continue their business activities. However, on the one hand employees are struggling to cope with the negative effects of the COVID-19 pandemic on physical and mental well-being (Majumdar et al., 2020), on the other hand they are trying to adapt to the new working conditions (Trogakos et al., 2020; Wang, Liu, Qian, et al., 2020). This situation is especially important as it affects the employees well-being and the organizational performance (Möhring et al., 2021). The previous studies support the positive relationship between employee well-being and job performance (Lin et al., 2014; Salgado et al., 2019; Wright & Cropanzano, 2000). Therefore, managers should be concerned with the well-being of employees, especially during the COVID-19 pandemic.

In order to contribute to the wellbeing of the employees, a series of wellbeing interventions are applied in organizations (Kersemakers et al., 2018; Slutsky et al., 2019). One of them is Mindfulness-Based Interventions (MBIs). In this book chapter, firstly, the effect of the COVID-19 pandemic on employee wellbeing will be discussed. Then, detailed information will be given about MBIs applied to support the well-being of employees. In the last section, the COVID-19 pandemic and digital MBIs will be discussed.

COVID-19 PANDEMIC AND EMPLOYEE WELL-BEING

The novel coronavirus illness (COVID-19), which began in Wuhan, China in December 2019, was declared as a pandemic by the World Health Organization (WHO) on March 11, 2020 (Carnevale & Hatak, 2020). Since COVID-19 is a droplet-borne disease, it can be transmitted from person to person through close contact. It can also be transmitted to other people by close contact from people who have COVID-19 disease and do not show symptoms. Social distancing is one of the most important measures used to reduce the spread of the disease, since the drug used for the treatment of the disease is still in the research phase and vaccination studies continue (Yanti et al., 2020).

Social distance (also known as physical distance) is attitudes and behaviors that include reducing physical contact, maintaining 6 feet of physical distance in coexisting environments, and reducing contact in order to prevent transmission of the disease agent (Suppawittaya et al., 2020). In order to ensure social distance, various new regulations regarding education, business and social areas have been made in the countries. These are lockdown, distance education in schools and the remote work at workplaces. With the mandatory transition to remote work, especially the human resources managers have made more effort to keep up with this situation. For example, before this pandemic, most of employees were working at office for a certain time (e.g., 08:00 – 17:00). However, during the pandemic they must swiftly adapt to remote work settings. This situation has made the distinction between work and private areas even more difficult (Chawla et al., 2020). Therefore, the burden of parental duties for employees increased due to the closure of schools and childcare services, which cause distress. In addition, single and childless workers have also been exposed to negative effects of loneliness and perceived lack of purpose, turning into adverse effect on their well-being (Carnevale & Hatak, 2020). Therefore, managers had to be concerned with the well-being of their employees in this process.

In this study, well-being will be discussed in both physical and psychological terms. While physical well-being relates to somatic experiences or physical symptoms such as feeling sick, pain or weakness

or fatigue (Bullinger et al., 2008), psychological or subjective well-being has been conceptualized as a broad structure that includes four components which are pleasant affect or positive well-being, unpleasant emotion or psychological distress, life satisfaction, and domain or situation satisfaction (e.g., work, family, health status or financial status) (Danna & Griiffin, 1999). In general, well-being has three basic characteristics (Wright & Huang, 2012). First, well-being is phenomenological (Diener, 2000). Individuals feel themselves well when they subjectively believe they are. Then, well-being includes how emotions are felt, experienced, and processed in a variety of ways. Finally, well-being is best regarded as a universal verdict, which implies that well-being, when considered as a whole, refers to one's life (e.g., work, family, other life domains).

Well-being is a widespread and effective part of the individual and society. Employees' well-being is positively correlated with job satisfaction, organizational commitment, turnover intention and job performance (Çankır & Şahin, 2018; DiPietro et al., 2020; Hämmig et al., 2009; Sarwar et al., 2020; Yu et al., 2021). Due to the link between employee well-being and positive work results, managers should attempt to increase employee well-being with interventions (Malinowski & Lim, 2015; Şahin et al., 2020). Mindfulness-based interventions (MBIs) are the most commonly used of them (Slutsky et al., 2019).

COVID-19 PANDEMIC, EMPLOYEE WELL-BEING AND MINDFULNESS-BASED INTERVENTIONS

Mindfulness-Based Interventions (MBIs)

The human mind has the ability to go to the past and future, regardless of the place, situation and time it is located. This situation is called "mind wandering" (Bennike et al., 2017; Takahashi et al., 2020). Although this feature of the mind contributed to the evolutionary development of humans, recent studies have shown that the human mind is unhappy when it is not in the present. Killingsworth and Gilbert (2010), in their study titled "A Wandering Mind is an Unhappy Mind" stated that 46.9% of sample reported that they thought about something other than what they were currently doing (Killingsworth & Gilbert, 2010). Mind wandering occurs due to autopilot, without people realizing it (Hougaard et al., 2016; Reb et al., 2015). In order to exit the autopilot, it is necessary to bring the mind to the present time by realizing every time the mind flies (Lottman et al., 2017).

Mindfulness is simply defined that mind's awareness of the moment it is in. Mindfulness is a mental state that involves recognizing and understanding the events happening around us without judgment, and providing conscious and controlled responses rather than immediate reactions to what is happening (Braun et al., 2019; Suleiman-Martos et al., 2020). Kabat-Zinn is one of the pioneer of mindfulness. Kabat-Zinn's definition of mindfulness is that "*the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment*" (Kabat-Zinn, 2003, p. 145). In mindfulness, first of all, the individual should notice what is happening in the current moment. What is actually attempted in mindfulness is to bring the mind to the present whenever the mind flies, that is, when it goes to the past and the future, whenever attention shifts (Brown & Ryan, 2003). This means that the individual is aware of all the experiences which he/she likes and dislikes in the present moment with a certain intention and deliberate effort (Feng et al., 2018). Then, mindfulness involves the individual's acceptance and appreciation of his/her experiences with a conscious mind, an open, loving, and compassionate heart (Kabat-Zinn, 1994; 2003). Finally, it

involves the individual's avoiding reacting as if dependent on an autopilot and choosing their reactions consciously (Centeno & Fernandez, 2020).

Mindfulness is linked to positive individual and job outcomes. For instance, mindfulness was related with positive affect and life satisfaction in previous studies (Brown & Ryan, 2003; Kiken & Shook, 2011). It was also correlated negatively with anxiety, psychological distress and depression (Li & Bressington, 2019; McClintock et al., 2019; Reangsing et al., 2021). Lower emotional exhaustion, job performance, job satisfaction, and employee wellbeing were also linked to mindfulness at workplace (Hülshager et al., 2013; Raza et al., 2018; Şahin et al., 2020).

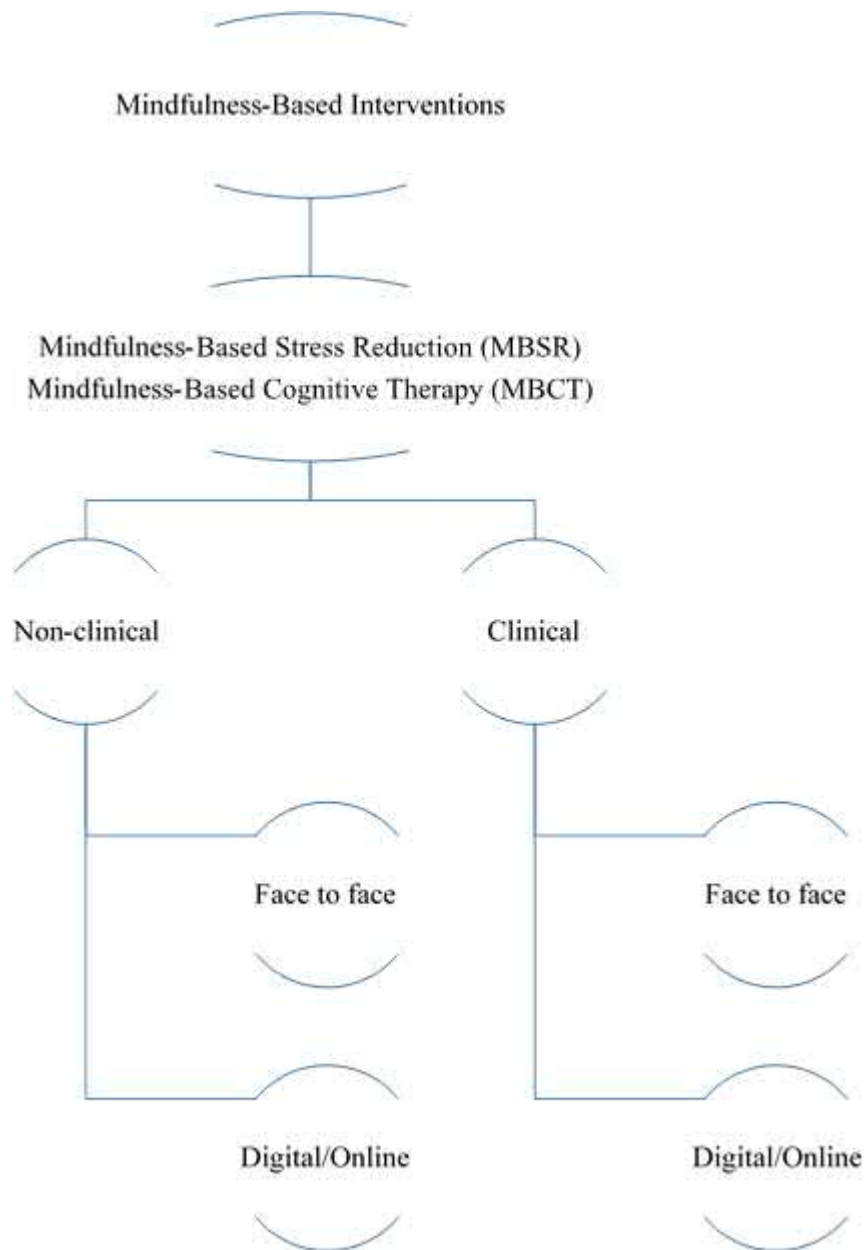
Mindfulness can be enhanced by mindfulness-based interventions (MBIs) (Solhaug et al., 2019). Studies on mindfulness show that regular mindfulness practices positively change the structure and functions of the brain (Alsubaie et al., 2017; Tang et al., 2015). The purpose of mindfulness training is to regain the ability to stay in the moment that is innate in humans but decreases in time. By improving his or her attention capacity through mindfulness activities, the individual increases his or her ability to stay in the moment and recognizes the changes in his or her body and mind (Querstret et al., 2020). Its goal is to cultivate the attitude of accepting feelings and thoughts with tolerance, compassion, and kindness, rather than judging them (Schultchen et al., 2020). What happens in life is unaffected by mindfulness. In other words, life can continue to bring stress, bad emotions, and difficult situations. However, mindfulness improves people's ability to cope with difficult situations by changing how they relate to them (Querstret et al., 2020). Since, mindfulness provides flexibility and resilience and increases contact with life (Kabat-Zinn, 2003; Segal et al., 2002; Young et al., 2018). There are two types of mindfulness-based intervention commonly used and having the strongest evidence base (Querstret et al., 2020): Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). Figure 1 demonstrates the classification of MBIs based on mindfulness literature (Kabat-Zinn, 1982, 1990; Querstret et al., 2020; Schultchen et al., 2020; Segal et al., 2002).

Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT)

Mindfulness-Based Stress Reduction Program (MBSR) is a scientifically supported group program that focuses on mindfulness within the scope of meditation teachings, where mindfulness practices are systematically progressed gradually. This program is designed by Jon Kabat Zinn and was first implemented in 1979 at MIT (Massachusetts Institute of Technology), University Mindfulness Center (Kabat-Zinn, 1982, 1990). Spiritual, physical, and mental exercises are all part of the MBSR program (breath exercises, scanning of body, exercises in mindful movement, meditation, mindful eating, mindful walking exercises, mindful listening, silence meeting, etc.). Participants complete this program in 8 weeks, with sessions of 1 day a week, 2 hours and 30 minutes (Bazarko et al., 2013; Querstret et al., 2020).

The MBSR program can be used as a supportive, preventive, complementary method or just on its own. In the past, it is a program designed only to cure patients with chronic pain and to change their relationship with pain rather than to reduce. Later, it was used to cope with stress, compelling situations and emotions (Bazarko et al., 2013; Grossman et al., 2004; Kabat-Zinn, 2003). Previous research has shown that it has therapeutic properties in a variety of regions (anxiety disorder, addiction, attention deficit, eating disorders, life satisfaction, stress, etc.) (Kabat-Zinn, 2003; Querstret et al., 2020).

Figure 1. Classification of mindfulness-based interventions



Mindfulness-Based Cognitive Therapy (MBCT), the second approach based on mindfulness, was developed in 1979 by integrating MBSR and cognitive therapy (Teasdale et al., 1995). The basic assumption of cognitive therapy is that thoughts take precedence over mood and dysfunctional beliefs lead to negative emotions such as depression. MBCT aims to enable individuals recognize and re-evaluate their negative thought patterns and change them with positive thoughts which more accurately represent reality (Mason & Hargreaves, 2001). MBCT tries to end dysfunctional and negative automatic thought

processes and teach as a skill to live with feelings and thoughts in a healthy way with a more productive mind (Sipe & Eisendrath, 2012).

MBCT is a group intervention program which takes 2-hour sessions per week and 8 weeks (Sipe & Eisendrath, 2012; Segal et al., 2002). Participants practice breathing meditation, body scanning exercise, yoga, mindfulness walking, mindful eating, and meditations (Centeno & Fernandez, 2020). Effectiveness of MBCT has been proven with studies conducted on this program, which is carried out with groups having panic attacks, depression and anxiety complaints (Kladnitski et al., 2018; Sipe & Eisendrath, 2012).

Clinical and Non-Clinical MBIs

Mindfulness-Based Interventions (MBIs) have been used widely both in clinical and non-clinical settings (Howarth et al., 2019; Shonin et al., 2013). Clinical sample refers that people who suffer from mental health issues and seek diagnosis and treatment while non-clinical sample refers that people who do not (Querstret et al., 2018). For example, in a study conducted by Lilja et al. (2020), non-clinical data were gathered from general population, such as students and employees. In their study, clinical data included data from patients and individuals who seek help from a psychologist for their mental health issues at the psychiatric clinics.

In both clinical and non-clinical samples, MBSR and MBCT were reported as effective for depression and anxiety in the meta-analysis of Khoury et al. (2013). There is also a number of meta-analyses, supported effectiveness of MBIs in clinical samples for preventing relapse in depression (Kuyken et al., 2016; Piet & Hougaard, 2011). Besides, many meta-analyses about the effectiveness of MBIs in non-clinical population (general public, professionals, and adolescents) have noted that they reduce anxiety, stress, and negative emotions while also boosting well-being (Eberth & Sedlemeier, 2012; Khoury et al., 2015).

Face to Face vs. Digital Mindfulness-Based Interventions

Face to face MBIs refer to interventions where the mindfulness instructor and the participant share the same physical space and interact face-to-face. The benefits of face-to-face MBIs have been shown in the previous studies (Bartlett et al., 2019; Vonderlin et al., 2020). However, in addition to their benefits, they have some disadvantages, too. Face to face MBIs take more time than digital MBIs due to the reasons such as going to training and returning home / work after training. Therefore, face to face MBIs have time restrictions, meaning that participants can only attend the training within the time in training schedule. In addition, face-to-face MBIs are more expensive than digital training (Compen et al., 2018; Eriksson et al., 2018). Digital MBIs refer to interventions that are provided via the internet and allow participants to participate in trainings whenever and wherever they want (Beiwinkel et al., 2017). There are a range of benefits to digital/online interventions over face-to-face interventions (Spijkerman et al., 2016):

1. They are conveniently accessible and do not have huge wait times.
2. They are accessible without time constrictions, saving time and allowing people to practice at their own speed.
3. They allow users to stay anonymous without having to take on the character of a patient.
4. They don't always necessitate the involvement of a mindfulness-trained therapist.
5. They are free or less expensive.

Digital MBIs can be classified based on the level of therapist contact (Beiwinkel et al., 2017; Lappalainen et al., 2014). First one is the entirely self-help, in which not included any mindfulness instructor's support. Second one is the minimal support from mindfulness instructor, such as regular check-ins. Last one is the guided self-help, which includes contact via e-mail or a session with mindfulness instructor (Farrand & Woodford, 2013; Lappalainen et al., 2014).

Mindfulness interventions have been implemented by using face to face formats in the earlier times of development of these interventions (Mrazek et al., 2019). However, with the increased using internet and technologic devices, digital mindfulness interventions have been more attractive for participants, instructors and researchers (Jayewardene et al., 2017; Mak et al., 2015). For example, Wahbeh et al. (2014) conducted a study, namely "Group, one-on-one, or internet? Preferences for mindfulness meditation delivery format and their predictors". The researchers defined the MBIs as "*internet format which includes visiting a website from any location and reviewing the material online; individual format which includes visiting the clinic and reviewing the material with a teacher one-on-one; group format which includes visiting the clinic and reviewing the material with a teacher in a group session with other participants.*" Then, participants were asked to choose one of the format, which was most suitable for themselves. 42% of the participants preferred internet format as the first choice format.

Previous studies have shown that using of digital MBIs have increased day to day. This situation leads to the concern about quality of digital MBIs. From this point, in order to assess the mindfulness-based mobile apps, many meta-analyses have been conducted (Mani et al., 2015; Nunes et al., 2020; Plaza et al., 2013). Mani et al. (2020) and Nunes et al. (2020) used the Mobile App Rating Scale (MARS) to assess quality of the mobile apps for MBIs. MARS was developed by Stoyanov et al. (2015) and it has 23 items representing five sub dimensions, namely engagement, functionality, aesthetics, and information quality, and subjective quality. Internal consistency of this scale was found to be excellent ($\alpha = 0.90$) (Stoyanov et al., 2015). In the study of Mani et al. (2020), 23 mobile apps for MBIs were evaluated with using MARS and found that 19 out of them had minimum acceptability score on 3.0 on MARS. Effectiveness of digital MBIs depends on the quality of these MBIs. Therefore, in order to examine the effectiveness of digital MBIs, first step should be to assess their quality and efficacy via reliable and validated scales (Mani et al., 2015; Nunes et al., 2020).

Digital Mindfulness-Based Interventions, Employee Well-Being, and COVID-19 Pandemic

Individuals' physical health as well as the psychological health and well-being have been impacted by the COVID-19 pandemic regardless of infected by COVID-19 virus (Roy et al., 2020; Wang, Horby, Hayden, et al., 2020). The most basic strategy taken to prevent the spread of the COVID-19 outbreak is physically separating and isolating individuals (Suppawittaya et al., 2020). This measure, which is protective against the pandemic can turn into a risk factor for mental health by reducing social ties. Social interactions have been indicated as a biological requirement for psychological and physical well-being. For this reason, the lack of social relationships during isolation negatively affects psychological and emotional well-being (Erdil & Ertosun, 2011; Saladino et al., 2020; Tuzovic & Kabadayi, 2020). Studies have shown that staying at home increases depression, anxiety, and loneliness (Groarke et al., 2020; Tull et al., 2020).

Bao et al. (2020) proposed the following suggestions in dealing with the psychological problems of the COVID-19 pandemic and isolation process: increasing and enriching people's social support; ensuring the continuity of work under safe conditions and having accessible psychological support resources. It is important to provide mental health services due to practices such as quarantine and social isolation required by this pandemic period (Xiang et al., 2020). Therefore, in this period, intervention strategies should be developed by using technology and digital resources (mobile or online applications, video conference calls, etc.) in mental aid (Holmes et al., 2020). Thus, it will be easier to reach individuals who need help. One of the digital interventions is digital mindfulness based intervention. Although, mindfulness based interventions have been implemented by face to face formats in general, recent studies have shown that digital MBIs are as effective as face to face MBIs to reduce stress and improve wellbeing (Jayawardene et al., 2017; Querstret et al., 2018; van Emmerik et al., 2018).

Lim et al. (2020) conducted a study in Singapore to test the effect of digital mindfulness training program implemented by videoconferencing format on level of stress and sleep quality during COVID-19 pandemic. The researchers compared the scores of stress and sleep quality according to the three groups which were pre-pandemic group trained before pandemic via face to face group training (n=86), pre-lockdown group with face to face group training (n=36), and videoconferencing group trained during lockdown via web-based group training (n=38). They found that digital mindfulness training via videoconferencing method was effective as face to face group training to reduce stress. However, they reported that neither digital mindfulness training nor face to face mindfulness training had significant effect on increasing sleep quality (Lim et al., 2020). These results have showed that digital MBIs are effective as face to face MBIs and can be implemented in organizations to reduce employees' level of stress and improve their well-being. In line with Lim et al. (2020), Behan (2020) also have recommended to digital MBIs to support individuals' well-being during crisis such as COVID-19 pandemic. For example, many organizations offered digital MBIs to their employees to cope with stress caused by Covid-19 pandemic. Although there are limited studies examining the effectiveness of digital MBIs during Covid-19 pandemic, studies pre-pandemic period provide empirical evidence for effectiveness of these training programs (see Behan, 2020).

Managers should implement MBIs in their organizations in order to benefit from the positive outcomes of mindfulness training. Digital MBIs can be used during the COVID-19 pandemic due to social isolation. The advantages of distance learning, such as cost effective and flexibility, have been acknowledged for a long time (Al-Balas et al., 2020). Therefore, even after the COVID-19 pandemic, digital MBIs can continue to be used. First of all, it is recommended to managers to implement mindfulness trainings as optional. Mandatory trainings may reduce the participation and motivation of employees (Reb & Choi, 2014). Afterwards, the manager should choose a mindfulness training program developed for the output he/she expects to achieve. For example, while MBSR is useful for reducing stress, there are different mindfulness-based training programs for other purposes (Reb & Choi, 2014). It would also be beneficial to determine a room where employees can practice meditation within the organization. In addition, policies should be adopted to encourage employees to participate in these trainings outside the organization. These policies may include the institution paying for the training, providing support for employee participation, etc. Mindfulness trainings are trainings organized to reduce the stress of employees and increase their well-being. Therefore, considering that employees participating in these trainings will be happier and more productive, employees should be motivated to participate in these trainings.

FUTURE RESEARCH DIRECTIONS

While MBIs are widely used in clinic samples, their application in non-clinic samples are still limited. One of the reasons for this may be that organizations do not apply these trainings to their employees due to cost and time loss concerns. Another reason may be that these interventions cannot be applied by researchers due to their cost. In addition, the fact that employees do not want to participate in the face to face MBIs because of the time problem, which is one of the obstacles of face to face MBIs. However, especially during the COVID-19 pandemic, employees' need for well-being trainings has increased. Digital well-being trainings are less costly and provide time flexibility. The most important advantage of digital well-being training is that it can prevent physical contact of employees participating in training during the social isolation process. Digital MBIs are therefore recommended for future researchers to improve employees' wellbeing and test the effectiveness of these interventions. In this way, employees' wellbeing will be contributed in the COVID-19 process and researchers will have the opportunity to reach more participants. It is thought that the results of the research with more participants will be more useful in persuading the managers for the effectiveness of these interventions.

CONCLUSION

Digital MBIs are seen as an effective support for employee wellbeing. Therefore, managers are recommended to implement Digital MBIs for preventing the employees to the negative consequences of stress and traumatic experiences caused by this pandemic. In addition, by drawing attention to the importance of multidisciplinary work in the pandemic process, psychiatrists, psychologists, healthcare professionals, and other professions should take steps together for improving employee well-being.

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KEY TERMS AND DEFINITIONS

COVID-19 Pandemic: It is a pandemic which emerged in Wuhan, China on December 1, 2019. The virus, which is caused pandemic, is called SARS-CoV-2. It is transmitted by air and droplets and causes fever, dry cough, and shortness of breath.

Digital Mindfulness-Based Interventions: A type of mindfulness based interventions which are provided by mobile apps or web-based platforms and which have many advantages such as time and place flexibility, cost-effectiveness, and easily accessible.

Mindfulness: A mental state or a trait which refers to being aware of the present moment on purpose with nonjudgmentally.

Mindfulness-Based Interventions: Interventions which aim to increase the level of state or trait mindfulness with practice of mindfulness meditations, spiritual, physical and mental exercises.

Remote Work: It is defined as the use of information and communication technologies such as smartphones, tablets, laptops and desktop computers to carry out the production and services of an organization away from the physical center where that organization is established.

Social Distance: Attitudes and behaviors that include reducing people's physical contact in order to prevent the transmission of the disease agent.

Well-Being: A broad structure which means that individuals feel themselves healthy, happy and satisfied with their life.

Section 3

Meditation, Mindfulness, Health, and Healing

Chapter 14

Mindfulness Through Mantram and Inspired Passage Meditation: Toolkit for Diversity

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ABSTRACT

Mindfulness is sometimes misunderstood as solely a Buddhist or secular practice. This chapter offers a toolkit for enhanced sensitivity and flexibility toward patients and populations of diverse spiritual and religious orientations and backgrounds. It explains a set of eight interrelated practices known as Passage Meditation (PM), and a subset known as the Mantram Repetition Program (MRP), both derived from Indian-born spiritual teacher Eknath Easwaran (1910-1999). These practices support mindfulness and can be pursued within any major religious tradition or outside all and facilitate drawing on spiritual resources within each tradition. Two empirical research programs based on these practices have generated more than 30 published research studies and seven randomized controlled trials. Each program has documented both enhanced mindfulness and a variety of improved mental health outcomes, often mediated by mindfulness gains. Guidance is provided for implementation, implications for diversity-related ethical obligations, and needed expansion of contemporary mindfulness toolkits.

INTRODUCTION

Interventions based on “mindfulness” have become popular in health and human service settings in the United States, Britain, and many other countries in the western world and beyond. Such interventions have been used for purposes that include stress reduction among patients, family therapy, treatment of depression and anxiety, treatment of substance abuse, and enhancement of education in settings ranging from college to grade-school (Ivtzan, 2019; Oman, 2020).

In these interventions, mindfulness is often presented as derived from Buddhism. Analogous practices and skills, however, have been taught for centuries or millennia across all of the world’s major religious traditions. As expressed in Singh’s (2010) inaugural editorial that launched the journal *Mindfulness*, “mindfulness is ubiquitous in all wisdom traditions... and there is much to be learned from these traditions” (p. 2). Yet practical efforts to draw on non-Buddhist forms of mindfulness appear overdue. Professional literatures are now seeing increasing calls for developing and implementing mindfulness interventions that are less neglectful and more proactively sensitive to recipients’ pre-existing spiritual and religious views and engagement (e.g., Palitsky & Kaplan, 2021). Similarly, greater attention to indigenous and spiritual perspectives on mindfulness-related contemplative practices has been advocated in prominent venues (Oman, 2020; Walsh & Shapiro 2006).

This chapter offers immediate assistance to health and human service professionals for expanding their mindfulness toolkit to provide enhanced sensitivity and flexibility toward patients and populations from diverse spiritual and religious orientations and backgrounds, both non-western and western. For an alternative approach to mindfulness intervention, we explain a set of eight inter-related practices, collectively often called passage meditation (PM), and a subset of these practices called the Mantram Repetition Program (MRP). Both are derived from the work of Indian-born spiritual teacher Eknath Easwaran (1910-1999). These practices support mindfulness and can be pursued within any major religious tradition or outside of them all, and facilitate drawing on spiritual resources within each tradition. Two empirical research programs based on these practices have generated more than 30 published research studies and seven randomized controlled trials (RCTs). Each of these two research programs has documented both enhanced mindfulness and a variety of improved mental health outcomes, often mediated by mindfulness gains.

The following sections explain the eight practices as originally formulated, and then review theory and research on how each adapted program incorporates mindfulness and affects health and other outcomes of interest. The final two sections discuss implementation, implications for diversity-related ethical obligations, and contributions to needed expansion of contemporary mindfulness toolkits.

PASSAGE MEDITATION APPROACHES: OVERVIEW

Figure 1¹ summarizes the eight practices that constitute the formal method taught by Eknath Easwaran, now often referred to as Passage Meditation (PM). The full PM program has been used and studied as an intervention for stress management, skill-enhancement, and educational purposes, and appears suitable for certain clinical applications. Suitable for an even broader range of clinical and non-clinical applications is the Mantram Repetition Program (MRP), based on three of the points (indicated by asterisks in Figure 1). The MRP has been the focus of ongoing research led by Dr. Jill Bormann at the US Veterans

Figure 1. Brief description of Passage Meditation (PM) program of Easwaran (2008a, 2016)

1. Meditating on a Passage: Silent repetition in the mind of memorized inspired passages from the world's great spiritual/religious wisdom traditions, such as the Discourse on Good Will of the *Sutta Nipata*, the *Bhagavad Gītā*'s portrait of the self-realized man or woman, or the Prayer of Saint Francis (see Figure 2). Practiced seated, with eyes closed, typically for one-half hour each morning.

***2. Repeating a Holy Word or Mantram:** Silent repetition in the mind at times other than meditation of a single chosen Holy Name, hallowed phrase or mantram from a major spiritual/religious tradition. Examples include *Rama*, *Allah*, *Jesus*, *Ave Maria* (see Table 3).

***3. Slowing Down:** Setting priorities, acting with intention and awareness, reducing stress and friction caused by hurry.

***4. Focused / One-Pointed Attention:** Giving full concentration to the matter at hand.

5. Training the Senses: Overcoming conditioned habits and learning to enjoy what is beneficial.

6. Putting Others First: Finding joy in helping others and gaining freedom from selfishness and one's own likes and dislikes.

7. Spiritual Association: Spending time regularly with others practicing PM for mutual inspiration and support.

8. Inspirational Reading: Drawing inspiration from writings by and about the world's great spiritual figures and/or from religious scriptures.

*Points 2, 3, and 4 are the basis of the Mantram Repetition Program (MRP).



Eknath Easwaran
(1910-1999)

Administration (VA) Healthcare System. The full set of eight PM practices has been the focus of research by Dr. Doug Oman of the University of California, Berkeley.

The eight PM practices are described in much greater depth in several books by Easwaran, including especially the *Mantram Handbook* (first published in 1977) and *Passage Meditation* (first published 1978). Initially published in the US, these books have been republished in India, and are available in translations in at least 17 Asian and European languages.

Effects on Mindfulness

The MRP and PM programs are “mindfulness-inclusive, rather than mindfulness-based.” They weave together wisdom-based themes and practices that support “implicit mindfulness” – mindfulness not explicitly labelled as such – and that resonate with diverse religious traditions, and can also be practiced outside of all traditions (Ivey, 2015, pp. 382, 395; Oman & Bormann 2018). Table 1 summarizes findings from randomized trials of the MRP and PM that report statistically significant increases in mindfulness as measured by the Mindful Attention and Awareness Scale (MAAS), the earliest, most influential, and one of the most widely used empirical measures of mindfulness (Brown & Ryan 2003; Oman, 2020).

Table 1. Effects on mindfulness in randomized controlled trials (RCTs) of Mantram Repetition Program (MRP) and Passage Meditation (PM)

Program, Population and design		Main findings (All Are Statistically Significant)
MRP	Bormann, Oman et al (2014) randomized veterans (n=136) with combat-related posttraumatic stress disorder (PTSD) to • MRP+Treatment as usual (TAU) (n=66) • TAU (n=70) and assessed mindfulness ^a at pre- and post-intervention.	Mindfulness Findings • MRP significantly increased mindfulness at post-intervention ($d=0.50$, $p<.001$) versus treatment as usual. • Mantram repetition frequency predicted increases in mindfulness that in turn mediated reduced PTSD symptoms, reduced depression, and gains in psychological well-being. Effects on Health^b • MRP fostered reductions in self-reported and clinician-reported PTSD symptoms, as well as favorable effects on depression, mental health related quality of life, and existential spiritual well-being. • MRP fostered increases in self-efficacy for managing PTSD symptoms, and these increases mediated symptom reductions
PM	Shapiro et al (2008) randomized college undergraduates (n=44) to • PM (n=14) • MBSR (n=15) • control (n=15) and assessed mindfulness ^a at pre- & post-intervention and 8-week follow-up	Mindfulness Findings • PM significantly increased mindfulness at eight-week follow-up ($d=1.08$, $p<.01$) versus controls, a slightly but non-significantly larger gain than shown by MBSR versus controls at eight-week follow-up ($d=0.93$, $p<.05$) • PM and MBSR gains in mindfulness mediated reduced stress • PM group stress reductions were predicted equally strongly by adherence to one-pointed attention (point 4) and mindfulness Effects on Health, Spiritual Measures^c • Both PM and MBSR showed equivalent reductions in stress, gains in forgiveness, large reductions in imagery of God as primarily controlling, and decreases in negative religious coping • PM but not MBSR led to gains in self-efficacy for learning from famous/traditional spiritual models, gains in the psychological availability of pre-1900 spiritual models, and gains in the influence of famous/traditional spiritual models.

Note: MBSR=Mindfulness-Based Stress Reduction; TAU=Treatment as Usual;

^aMindfulness was assessed with the Mindful Attention and Awareness Scale (MAAS, Brown & Ryan 2003).

^bEmpirical reports ($k=3$) on this MRP RCT include Bormann, Thorp et al (2013), Bormann, Oman et al (2014).

^cEmpirical reports ($k=4$) on this PM RCT include Oman et al (2007), Oman, Flinders et al (2008), and Shapiro et al (2008).

The MRP and PM programs are not alone in implicitly fostering mindfulness. A review by Xia and colleagues (2019) tabulated mindfulness gains in 30 studies that investigated a variety of interventions not formally based on mindfulness, including several methods of meditation. Noting that consistent commonalities in brain activation have been found in neuroimaging studies of distinct forms of meditation, these researchers suggested that although other forms of “meditation and mindfulness meditation may differ in goals and specific techniques, their shared attention regulation may have contributed to the fact that all... are associated with increased mindfulness levels” (p. 887).

Not only attention regulation, but many other recurring themes and practices can be found across diverse meditative systems, perhaps because contemplative and meditative traditions worldwide have ultimately aimed at similar transformations in “character, conduct, and consciousness” (Easwaran, 2008a, p. 29; Peterson & Seligman, 2004; Plante, 2010). Such meditative systems, encompassing diverse practices that synergize with each other in producing transformation, are sometimes regarded as “wisdom traditions” (e.g., the Buddha’s Noble Eightfold Path; Patañjali’s Eight-Limbed Yoga). Rosch (2007, p. 262) therefore penetratingly pointed out that many so-called mindfulness interventions “could as much be called wisdom-based as mindfulness-based.” She explained that “Mindfulness would seem to play two roles: as a part of the [intervention] itself and as an umbrella justification (‘empirical’) for

the inclusion of other aspects of wisdom [i.e., practices and concepts] that may be beyond our present cultural assumptions” (p. 262; see also Rosch, 2015).

MRP and PM instructional texts therefore – not surprisingly – overlap with major themes of the modern formally explicit mindfulness literature. Table 2 shows examples of how MRP and PM materials incorporate perhaps the two most primary emphases in the modern explicit mindfulness literature, Presence/Awareness and Acceptance. These two themes represent a “most striking... conceptual similarity” found across many diverse psychological conceptualizations of mindfulness (Rau & Williams, 2016, p. 34). The next two sections explicate the MRP and PM intervention programs and their supporting research in greater detail.

Table 2. Mindfulness analogues in MRP and PM instructional materials, selected excerpts

Intervention	Quote
Presence/Awareness (Attending to the Present Moment) In MRP and PM source writings, presence and awareness is sometimes referred to as attending to the present moment, and often evoked as part of slowing down (point 3) and focused attention (point 4):	
MRP	One of life’s most precious skills is learning to slow down and live completely in the present moment (<i>Strength</i> , “Be at Peace in the Moment,” ^a p. 35)
MRP	Every time the mind wanders – as it surely will – you simply bring it back with the mantram and focus again on what you are doing. (<i>Strength</i> , ^a p. 45)
MRP	Now is the only time there is... If we feel we don’t have enough time... we need to learn to slow down and give complete attention to whatever we are doing. (<i>Strength</i> , ^a p. 41)
MRP	When we mortgage the present for the future, we are not only asking for depression in the future; we are also deadening ourselves to the present. (<i>Handbook</i> , “Living in the Present,” ^b p. 99).
PM	To be aware of others, we have to go slowly and pay attention to what is happening (<i>Passage</i> , “Slowing Down,” ^c p. 90).
PM	When you find yourself dwelling on future events... [repeat the mantram to] bring yourself back to the present moment (<i>Passage</i> , p. 81)
Acceptance In MRP and PM source writings, recurring analogues to the acceptance facet include cultivation of “detachment” and “patience” viewed as supporting the capacity to see things as they are and make choices on that basis. ^d How to cultivate qualities such as detachment and patience is typically discussed in the context of daily activities.	
MRP	The first goal is to break the connection between stimulus and response. Later, once you have a measure of detachment, you can reply... without identifying yourself with your opinions or the other person with hers... They key is to have a choice. (<i>Strength</i> , ^a p. 122)
MRP	With patience we can bear with others... If we can remember the mantram, it will help us to be more patient... (<i>Handbook</i> , “Impatience,” ^b pp. 120-121)
PM	Instead of getting [mentally] caught... repeat the mantram.... your mind will gradually grow calmer and you will gain the precious detachment you need to understand... (<i>Passage</i> , p. 78)

Note: *Strength* = *Strength in the Storm* (Easwaran 2008b); *Handbook* = *Mantram Handbook* (Easwaran 2013); *Passage* = *Passage Meditation* (Easwaran 2008a)

^aIn *Strength*, “Be at Peace in the Moment” (pp. 35-58) is Chapter 2 and “Choose Kindness” (pp. 113-134) is Chapter 5.

^bIn *Handbook*, “Living in the Present” (pp. 99-100) is a section of Chapter 2 (“Excitement & Depression,” pp. 93-108), “Impatience” (pp. 120-121) is a section of Chapter 8 (“Harnessing Fear, Anger, & Greed,” pp. 109-128), and “Detachment” (pp. 144-147) is a section of Chapter 10 (“The Goal of Life,” pp. 139-155).

^cIn *Passage*, “Slowing Down” (pp. 87-115) is Chapter 3.

^dIn Kabat-Zinn’s (1990) explication of the MBSR program that served as the prototypical modern mindfulness intervention, he states that “Acceptance does not mean that you have to like everything or that you have to take a passive attitude toward everything and abandon your principles and values.... it simply means that you have come around to a willingness to see things as they are” (pp. 38-39). He also asserts that “Seven attitudinal factors [that] constitute the major pillars of mindfulness practice... are non-judging, patience, a beginner’s mind, trust, non-striving, acceptance, and letting go.” (p. 32).

MANTRAM REPETITION PROGRAM

The most immediately and widely clinically applicable intervention assembled from Easwaran's eight points is the Mantram Repetition Program. The MRP's single most important point is the frequent repetition on many occasions throughout the day of a single chosen holy phrase or mantram, the focus of the *Mantram Handbook* (1977, later republished as Easwaran, 2013).

Mantram repetition is a *portable* practice as taught in the MRP (Figure 1). That is, the mantram is *not* the focus for sitting meditation, as commonly taught in many other methods that encourage mantram repetition. In the PM approach, this is a "sharp distinction" and the mantram, while not taught as a focus for meditation, may be repeated "at virtually any time and in any place" – usually silently in the mind (Easwaran, 2013, p. 163). To mitigate confusion, Bormann and her colleagues have tabulated features of the MRP that distinguish it from other programs or practices with which similarities are only *partial* (e.g., Bormann & Oman, 2007, p. 98, Table 7.2, distinguishes MRP from practices that include centering prayer, Transcendental Meditation, and, more generally, sitting meditation).

MRP intervention participants are asked to select a single primary mantram that they will use on many occasions and as much as possible. Consistent with Easwaran's (2013, p. 163) approach, participants are strongly encouraged to choose a mantram from a spiritual tradition, that is, a "traditional" mantram, rather than making up their own word, phrase, affirmation, slogan or motto. Over the long term, a traditional mantram is viewed as more powerful, stabilizing, and able to provide access to psycho-spiritual resources. While repeating the mantram, participants are encouraged not to "think about" its meaning – which would be a distraction – but rather to focus attention on it with as much concentration as possible. To select a mantram, participants are supplied with a handout including many diverse examples of traditional mantrams, such as shown in Table 3.

As formulated by Bormann and her colleagues, the MRP intervention also includes two additional points drawn from the PM approach: slowing down (point 3) and one-pointed attention (point 4). Slowing down involves moving with care and deliberation through the day so as to minimize the stress caused by time pressure and hurry. It does not necessarily mean moving slowly, but requires setting priorities and limiting activities to avoid living with the constant sense of time-urgency that characterizes much of contemporary life. One-pointed attention invites the MRP practitioner to do only one thing at a time, and to give it full attention. Such a practice may appear counterintuitive in a culture where multitasking is endemic, but it offers a way to remain calm in the midst of the ongoing interruptions that characterize a typical modern workplace.

Importantly, the three points of mantram repetition, slowing down, and one-pointed attention are synergistic and mutually supportive, and many more examples are described elsewhere (Easwaran, 2008a, b, 2013). The mutual supportiveness of these points has also been documented in qualitative research by Oman, Richards et al (2008, p. 1128, Table 3), who found that healthcare professionals working in clinical settings provided numerous reports of multiple ways that the mantram in conjunction with one or both of the additional points could be deployed together in concert in ways that facilitate efficacy at work.

The earliest research on the MRP used the *Mantram Handbook* as an instructional text, but subsequent MRP intervention deliveries have used *Strength in the Storm* (Easwaran, 2008b, 2013). Initially the MRP was taught in five weekly sessions, later expanded to eight sessions of about 90 minutes each, yielding about 12 hours of total instruction (see Bormann & Oman 2007, p. 101, Table 7.3). More recently, the program has also been delivered using a variety of webinar formats, has been adapted to situations with limited resources for meetings – sometimes delivered in as few as 2 hours – and has

Table 3. Choosing a mantram or holy name/phrase, selected examples

If you have this in mind...	Then consider choosing this mantram...
Hindu	
Eternal joy within	Rama, Rama
Invocation to beauty and fearlessness	Om Namah Shivaya
In honor of the Divine Mother	Om Bhavani
	Hare Rama... Hare Krishna... [Mahamantram]
Muslim	
Lord God, the One	Allah, Allah
God is Great	Allahu Akbar
In the name of God, merciful, compassionate	Bismillah ir-Rahman ir-Rahim
Christian	
Jesus Prayer	Lord Jesus Christ, son of God, have mercy on me
Mother of Jesus	Hail Mary [or] Ave Maria
Son of God	Om Yesu Christu [or] Jesus, Jesus
Sikh	
The wondrous God	Waheguru
Buddhist	
Jewel (the Self) is in the lotus of the heart	Om Mane Padme Hum
I bow to the Buddha of Infinite Light	Namo Amida Butsu
Jewish	
Blessed art Thou, King of the Universe	Barukh Atah Adonai
Lord of the Universe	Ribono Shel Olam

Note: This list is *not* considered exhaustive or exclusive.

been delivered individually (Pelletier & Bormann, 2018). A brief open-access “how to” introduction to mantram repetition as taught by Easwaran has been provided in the journal *Mindfulness* by Bormann, Kane, and Oman (2020).

MECHANISMS OF MRP

From a scientific perspective, Bormann and her colleagues have described a range of potential mechanisms, typically operating in concert, whereby the MRP may generate health, well-being, and opportunities for spiritual growth. Mindfulness as well as additional mechanisms such as self-efficacy and enhanced spiritual well-being have already received empirical support. Theorized but empirically unexplored mechanisms include enhanced self-regulation, improved coping, enhanced relaxation, and reduced allostatic load (see also Bormann & Oman, 2007; Oman, Bormann et al., 2020).

Of special interest are proposed scientific mechanisms through which the *meaning* of the mantram is theorized to function as an active rather than inert component of the MRP intervention. This may happen in part by mentally activating spiritual perspectives that enable an individual to draw upon spiritual

resources, which more than 100 systematic reviews now link to improved health outcomes (Oman & Syme, 2018b; regarding mantram meaning, see also Wachholtz et al., 2017). As explained by Bormann and Oman (2007, pp. 97-99):

[M]antram repetition may strengthen a person's ability to think and enact a wide variety of positive and healthy thoughts and behaviors. Just as an advertiser's jingle facilitates purchasing an advertised product, constant repetition of a mantram fosters remembrance of spiritual ideals. It may also foster remembrance of other ideals and states of mind that over time have become associated with a mantram. In psychological theory, this is called the "associative network" theory of memory and emotions.... Through associations, the mantram appears to engender what psychologists call a "spreading activation," making related memories and emotions more mentally available to consciousness. Importantly, an associative network need not be conscious.... Compared to secular words, spiritually derived words have greater potential to activate spiritual attitudes. That is, a mantram derived from tradition may possess few associations at the outset... But over months or years, a mantram's network of associations will slowly but inevitably evolve in ways that are shaped by both culture and individual experience. In this manner, over long periods, spiritually derived words appear to permit (but not require) substantially greater long-run access to the ideals [and teachings and supported practices] of major spiritual and religious traditions....

CLINICAL APPLICATION OF MRP

As a portable practice, the MRP can readily be used even by patients who are seriously ill or highly distressed and lack energy and/or time or other resources. Like other (explicit) mindfulness interventions, the MRP is conceptualized primarily as an adjunctive treatment that can facilitate healthy adaptation and stress reduction, often thereby supporting adherence to other allied treatments. Thus, MRP practices are very widely applicable and can potentially be useful for almost all patient populations as well as for health-promotion and stress-inoculation efforts among healthy populations.

Indeed, Bormann and her colleagues have now employed the MRP for diverse populations and purposes that include military veterans (to address combat-related posttraumatic stress disorder, PTSD, insomnia, hyperarousal), patients with HIV/AIDS (stress, coping), family caregivers of veterans with dementia (stress, anger, depression), community-dwelling older adults (for insomnia), homeless women (for insomnia), first-time mothers (for managing labor), patients with stroke, and healthcare staff (for stress). A research team in Korea has also delivered the MRP to patient, student, and health professional populations (stress, well-being). To improve access, the program has been made available through webinars and self-learning modules. The MRP has also been condensed and adapted for delivery in less than two hours to homeless women (i.e., Barger et al., 2015). The MRP practices are amenable to being recommended and/or taught to patients through either group or individual clinical practice formats, especially to patients able to follow up through online resources and/or who can learn through periodic coaching.

A key issue is compatibility with the patient's pre-existing spiritual beliefs and practices. Due to its cross-cultural and multi-faith conceptualization (e.g., Table 3), the MRP is potentially compatible with patients from diverse backgrounds. As with other types of mindfulness interventions, perhaps most important is presenting MRP concepts in ways respectful of a participant's background and concerns.

For patients with severe respiratory symptoms, mantram repetition appears potentially advantageous in comparison with the widespread mindfulness practice of attending to the breath. Conventional breath-focus may be ineffective or contraindicated because “drawing attention to breathing... could provoke hyper-vigilance of breathless symptoms resulting in emotional distress” (Harrison et al., 2016, p. 349). See also Oman, Bormann and colleagues (2020) regarding applications to the coronavirus disease-2019 (COVID-19) pandemic.

RESEARCH ON MRP

Most research on the MRP has been conducted by Bormann and her colleagues in the VA Healthcare system (USA). Several studies have also been independently conducted in South Korea, as noted above. In each country, research has investigated both high-functioning populations (e.g., healthcare workers) as well as patient populations, some with life-threatening illnesses. Research has documented that the MRP can be effectively delivered online to healthcare workers (Bormann & Abraham, 2019; Bormann, Walter et al., 2017). Three MRP studies have been conducted at multiple sites (e.g., Bormann, Thorp et al., 2018).

Of five RCTs to date, three have focused on military veterans diagnosed with PTSD. One trial included 136 participants and a measure of mindfulness (Table 1, row 1). In comparison with recipients of treatment as usual, those who received the MRP plus treatment as usual had decreased PTSD symptoms, greater self-efficacy for managing PTSD symptoms, and better profiles for mental health related quality of life, psychological well-being, and spiritual well-being. Significant increases in mindfulness mediated reduced PTSD symptoms, reduced depression, and gains in psychological well-being (Bormann, Oman et al., 2014; Bormann, Thorp et al., 2013). Similar MRP effects on health and well-being were also observed in 29 military veterans diagnosed with PTSD who participated in a separate randomized trial (Table 4, RCT #2). The largest RCT of 173 Veterans compared MRP to an active control and found MRP fostered significant reductions in hyperarousal and improvements in clinician-assessed PTSD severity (Bormann, Thorp et al., 2018). A fourth RCT investigated effects on patients living with HIV, and reported MRP-related increases in several measures of mental health, coping abilities, and spirituality. A fifth RCT taught the manualized MRP program to Korean nurse managers, revealing MRP-related gains in spiritual well-being and leadership (Yong et al., 2011). In qualitative studies, patients have reported the successful use of mantram repetition to “ease breathing” during pneumonia (Kemppainen et al., 2012, p. 80). Selected major findings from Bormann’s research on the MRP, including some qualitative studies, are summarized in Table 1 (row 1) and Table 4.

CROSS-CULTURAL AND SPIRITUAL RESONANCE OF MRP

As noted earlier, a key issue for recommending mantram practice or the MRP is compatibility with a patient’s pre-existing spiritual beliefs and practices. The MRP has been well-received in the USA and Korea. The optimal framing may differ between cultures (e.g., optimal lists of mantrams in Table 3). Yet several considerations suggest that the MRP is likely to be generally well-received in India and many or most other Asian countries. First, Indian tradition encompasses a long history of using the mantram in ways that are highly portable. Mahatma Gandhi, for example, referred to mantram or holy name repetition

as Ramanama, calling it his “staff of life,” urging those around him to “persevere and ceaselessly repeat Ramanama during all their waking hours,” and asserting that “a Christian may find the same solace from the repetition of the name of Jesus, and a Muslim from the name of Allah. All these things have the same implications and they produce identical results under identical circumstances” (Gandhi, 1949/2011, p. 5). Mantram repetition was also the foundation of Gandhi’s “Nature Cure” program. Gandhi argued the practice was “suited to the millions of India’s poor,” stating that the “best prescription for the soul is... Ramanama (God’s name)” (Gandhi, 1949/2011, pp. 76-77; Gandhi, 1954, p. 36). Long before Gandhi, in the Hindu *Bhagavad Gītā* 10:25, Sri Krishna declared that “of sacrifices, I am *jāpa*” (mantram repetition: *yajñānāmjapayajño ’smi*). In Abrahamic traditions, Oman and Driskill (2003) cite support in Judaism and Islam, and sketch the long history of holy name repetition in Christianity.

Due to its flexibility and simplicity, the MRP has also been used by people who report atheist or agnostic beliefs. For example, some people who are inspired by Buddhism describe themselves as “atheist” because they disbelieve in a creator god, and yet report benefit from using a Buddhist mantram. Other participants who have chosen to use mantrams not rooted in spiritual wisdom traditions may still receive worthwhile if possibly limited benefit from the MRP, as a non-traditional mantram risks mobilizing only part of the full range of potential salutary mechanisms.

PASSAGE MEDITATION

Like the MRP, the full eight-point Passage Meditation program can be used as a clinical intervention. The PM program combines mantram repetition and the other MRP practices with five additional practices (see Figure 1). A book-length explication of the full PM program was first published in *Meditation* (1978) (later republished as Easwaran, 2008a, 2016).

Importantly and distinctively, the first and foundational PM point requires the meditator to personally select and memorize a passage of text from among a range of spiritual wisdom traditions (see Figure 2). This textual passage is employed as the focus for meditation. Easwaran’s method of meditation involves concentration: a systematic attempt to engage in what is called *dhyāna* in the *Yoga-Sūtras* III.2 and the *Bhagavad Gītā* 18:52. More broadly, concentrative practices are incorporated in most Indian spiritual traditions, including Hinduism, Buddhism, Jainism, and Sikhism (Oman & Bormann, 2018). Meditating on a passage – PM point 1 – involves sitting with eyes closed and slowly mentally repeating the passage to oneself with concentration. Whenever the mind wanders away from the passage, it is brought back. In the traditional Sanskrit of Patañjali’s *Yoga-Sūtras* II.29, this practice is called *dharana* or *dhyāna*. In contrast, reading and reflecting on a passage and thinking about it – traditionally in Sanskrit called *manana* – would be one acceptable way to implement spiritual reading (PM point 8), but would not meet criteria for PM point 1, meditation.

A passage for meditation in the PM method must meet specific criteria: A passage should possess practical implications for daily living and should reflect the composer’s personal experience of higher consciousness. More specifically, a passage suitable for meditation should be “positive, practical, universal, and inspiring, and it should come from a scripture or from a man or woman whose words and life attested to the realization of the supreme reality that most of the world’s great religions call God” (Easwaran, 2004, p. 14). Using such texts as a focus for meditation can be understood as a systematic yet innovative implementation of a specific meditative focus suggested by Patañjali.

Table 4. Mantram Repetition Program (MRP): selected empirical research findings^a

Population and Design	Main Findings (All Are Statistically Significant)
RCT #1: ^b Veterans (n=136) with posttraumatic stress disorder (PTSD)	See Table 1 (row 1), above.
RCT #2: ^c Veterans (n=173) with combat-related PTSD randomized to: • MRP (n=89) • PCT (n=84) measured pre/post, 8-week follow-up	• MRP fostered greater reductions in clinician-reported PTSD symptoms, insomnia, and hyperarousal than PCT, with MRP and PCT delivered individually. • Hyperarousal reductions mediated reductions in PTSD symptoms.
RCT #3: Veterans (n=29) with combat-related PTSD randomized to: • MRP (n=14) • controls (n=15) measured pre- and post-intervention	• MRP group in comparison to control group, showed large reductions in PTSD symptom severity, reduced psychological distress, and increased quality of life.
RCT #4: HIV-infected adults (n=93) randomized to: • MRP (n=46) • controls (n=47, equal attention) followed for 22 weeks	MRP fostered favorable treatment effects on anger, spiritual connectedness, faith/assurance, spiritual meaning/peace, and non-HIV intrusive thoughts. MRP gained versus controls in coping with stress via reduced anger, and positively reappraising difficult situations.
RCT #5: ^d Korean nurse managers (n=51) randomized to: • MRP (n=24) • Education controls (n=27) measured pre- and post-intervention	• MRP fostered significantly more improved spiritual well-being, spiritual integrity, and leadership practice. • Between-group differences in job satisfaction were not found. • MRP fostered significantly lower levels of burnout.
Quasi-experimental pre/post study ^e of Korean patients with cancer (n=28): • MRP (n=18) • Control group (n=10)	• MRP fostered increases in spiritual well-being and reductions in anxiety and depression.
Pre/post study ^f of Korean nursing students (n=162, no control group)	• MRP fostered decreases in stress and increases in empathy and spirituality.
Pre/post mixed-method intervention study ^g of homeless women with insomnia (n=29, no control group)	• Reduced insomnia • Reports of benefits from mantram and “feeling cared for.” • 88% at post-intervention reported using mantram
Pre-post-follow-up intervention study ^h of healthcare workers (n=54) using MRP delivered online	• Gains in mindfulness and spiritual well-being • Reductions in burnout, reductions in troubled conscience • 72% at 3-month follow-up used all 3 MRP points
Critical incident study ⁱ of outpatient adults living with HIV (n=32) trained in MRP	• Mantram repetition included increasing calm/peace, changing viewpoint, increasing personal awareness, adjusting behaviors, managing physical symptoms, enhancing relationships, and increasing spirituality

Note: RCT=Randomized controlled trial; MRP=Mantram Repetition Program, PCT=Present-Centered Therapy

^aEmpirical reports on MRP research (k=26 to date) were partially reviewed by Oman and Bormann (2018), from which several summaries here were adapted.

^bRCT #1 empirical reports (k=3) include Bormann, Thorp et al (2013), Bormann, Oman et al (2014).

^cRCT #2 empirical reports (k=2) include Bormann, Thorp et al (2018).

^dRCT #5 was reported by Yong et al (2011).

^eReported by Yong et al (2018)

^fReported by Kang et al (2019) with English abstract, Korean text.

^gEmpirical reports (k=2) include Barger et al (2015)

^hEmpirical reports (k=2) include Bormann, Walter et al (2017)

ⁱReported by Kemppainen et al (2012)

Collections of passages are available that Easwaran recommended as suitable for use in the PM mode of meditation (Easwaran, 2004, 2009). Published collections include passages from all major traditions – Hinduism, Islam, Christianity, Buddhism, and Judaism –plus others such as Sikhism, Taoism, and aboriginal traditions. Recommended passages reflect different experiences, approaches, or facets of higher realities (Oman & Bormann, 2018). For example, many passages from Buddhist, Taoist, and *Upaniṣadic* sources express an impersonal approach toward the highest realities, whereas many other passages from both East and West reflect unambiguously devotional orientations (called *bhakti yoga* in Hinduism). Still others, such as some passages from the *Bhagavad Gītā*, show a blend. Many texts reflect patience, acceptance, and other “attitudinal factors [that] constitute the major pillars of mindfulness” as taught in the well-known program Mindfulness-Based Stress Reduction (MBSR, Kabat-Zinn, 1990, p. 32) (see also Table 1, footnote d). Compared to the recommended daily time for MBSR sitting practice (40 minutes), the recommended sitting practice for PM sitting practice (point 1) is slightly shorter (30 minutes).

Easwaran identifies two key features of the PM method. First, meditation serves to “train attention,” a widely acknowledged function of all methods of meditation (Oman, 2020). More distinctively, he asserts that “the truths the passages express ... become part of one’s life, assimilated into character and consciousness ... In the simplest possible language, this is the secret of meditation: we become what we meditate on” (Easwaran, 2008a, p. 13, 2016, p. xii).

Such affirmations are infrequent in the meditative approaches that to date have garnered the greatest modern publicity. Yet they are compatible with the PM program as a source of mindfulness. And as described below, such affirmations are also consistent with both traditional Indian sources and modern scientific theory and research.

In the full PM program, the mantram “plays a unique role as the bridge between the interior discipline of meditation and the other external disciplines, for it helps greatly in applying the power gained in meditation to the other disciplines throughout the day ... [by enabling] us to recall a little of the inner strength we glimpsed that morning in meditation” (Easwaran, 2013, pp. 176-177). Furthermore, “The more you repeat your mantram, the deeper will be your meditation. The deeper your meditation, the better will be your repetition of the mantram” (p. 219). As described more fully by Easwaran (2008a, 2016), the remaining four points also serve to retrain attention. Training the senses and putting others first (points 5 and 6) involve transforming habits that affect one’s senses and higher mental faculties, especially one’s egoistic attachments. Overall and motivational support is provided by spiritual fellowship (point 7) and spiritual reading (point 8).

MECHANISMS OF PM

As done by Bormann for the MRP, Oman and his colleagues have described diverse potential mechanisms, typically operating in concert, whereby the PM program may generate health, well-being, and spiritual growth. Mindfulness plus additional mechanisms such as self-efficacy, assimilation of empathy and compassion, and enhanced capacity to learn from spiritual exemplars have already received empirical support. Theorized but empirically unexplored mechanisms include enhanced self-regulation, improved coping, improved health behaviors, improved character strengths, more satisfying personal strivings and life commitments, heightened ability to learn from spiritual exemplars, a more reliable capacity for wise living, enhanced relaxation, and reduced allostatic load (see also Flinders et al., 2007; Oman et al., 2007).

Figure 2. Examples of inspirational passages recommended for meditation (excerpts)

Source	Passage Excerpt	Tradition
Bhagavad Gītā on the self- realized man/woman	They live in wisdom who see themselves in all and all in them, whose love for the Lord of Love has consumed every selfish desire and sense craving tormenting the heart. Not agitated by grief...	
Mirabai	Singing your name day and night, it echoes in my mind all the time... Singing your name heals all wounds, and guards the mind against selfish thoughts...	
Adi Śaṅkara	You are the soul of my soul, your energy my wisdom and mind; my body is your abode... I walk each step as pilgrimage to your shrine...	
Qur'an Opening	In the name of God, most gracious, most merciful. Praise be to God, cherisher and sustainer of all. Most gracious, most merciful...	
Prayer of Francis of Assisi	Lord, Make me an instrument of Thy Peace, Where there is hatred, let me sow love; Where there is injury, pardon...	
Gurū Nānak	There is but one God. Truth is his name, maker of all things, free from fear and hate, timeless, birthless, self-existent...	
Discourse on Good Will	May all beings be filled with joy and peace. May all beings everywhere, the strong and the weak, the great and the small...	

Note: These are excerpts from lengthier passages in sourcebooks compiled by Easwaran (2004, p. 209; 2009, pp. 33, 61, 115, 133, 203, 209). Sourcebooks supply passages suitable for meditation from all major traditions and diverse other sources that include numerous *Upaniṣads*, chapters of the *Bhagavad Gītā*, and *Dhammapada*, biblical Psalms, and texts from Kabir, Jalāluddīn Rūmī, Ansari of Herat, Rabi'a, Teresa of Avila, Francis de Sales, Thomas à Kempis, Śāntideva, Sarada Devi, Mahatma Gandhi, Lao Tzu, Seng Ts'an, Chief Yellow Lark, and many others.

CLINICAL AND EDUCATIONAL APPLICATION OF PM

The full PM program possesses applications in health-promotion as well as in the clinic. Together, PM and MRP function as a two-program toolkit that can address widely varying needs of diverse populations. The two programs complement each other's strengths as mindfulness-inclusive interventions and programs.

On the one hand, the MRP is simple to learn and possesses correspondingly wide applicability to patient populations suffering from high levels of stress or physical or mental illness. In contrast, the

PM's core activity, meditating on an inspirational passage, although high-reward, also requires a certain level of energy and self-discipline for adhering to a regular meditation practice. In this respect, the PM program is akin to other high-reward, high-demand health-relevant practices such as maintaining an aerobic exercise routine. For patients who begin with reduced physical or mental functioning due to illness, the MRP, rather than the full PM program, may be a better match and entre to PM approaches for stress management, personal growth, and mindfulness.

Nonetheless, the full PM program retains much relevance to high functioning populations such as people with diabetes, for whom managing stress and maintaining healthy behaviors are key considerations. Similarly, the full PM program has drawn much interest among people recovering from substance abuse, as a way to implement the meditation step (eleventh step) of the widely influential twelve-step program approaches (Flinders et al., 2010).

More broadly, the full PM program is widely relevant to health education and to health promotion in high-functioning yet “stressed” populations, such as health professionals and college undergraduates. In the USA, the PM program has been taught in continuing education for physicians, nurses, and many other types of health professionals, and has been offered at some universities in the USA through student health service centers or as a stand-alone stress-management course (see Flinders et al., 2010; Oman & Bormann, 2018), often in 12 to 16 total hours over 8 weekly meetings.

Like mindfulness and some other forms of contemplative practice, the PM program has been productively integrated into *standard higher education* coursework (Flinders et al., 2010; Simmer-Brown & Grace, 2011). Such “upstream” approaches to foster early-life learning of salutary practices is particularly beneficial and efficient from a public health perspective (Oman & Neuhauser, 2018). Beyond their contemplative function, the noetically rich texts used for PM meditation can serve academic functions, as explicated elsewhere in detail (Oman, Flinders et al., 2008a). An example is Dreher's use of *Passage Meditation* as a primary course text in English 189: Vocation, a class that has been taught for many years at Santa Clara University (USA) in fulfillment of both core religious studies and English major requirements. In this course, readings in European Renaissance biography complement the PM focus on texts from inspired spiritual figures. Each class meeting has begun with 10 minutes of silent meditation on a passage. As the term proceeds, students learn to practice each of the eight PM points (see Flinders et al., 2010, pp. 53-55). From a public health standpoint, the students are receiving mindfulness- and resilience-building stress inoculation training seamlessly integrated into their academic experience.

RESEARCH ON PM

Research on the full eight-point PM program (Figure 1) has been led by Professor Doug Oman of the University of California, Berkeley. Empirical studies to date have examined effects of the full PM program in two high-functioning yet “stressed” populations: healthcare professionals and college undergraduates. Fuller reviews of many findings from research on the entire PM program are available elsewhere (e.g., Flinders et al., 2007).

Of two RCTs conducted on the full PM program, one employed a three-group design and focused on US college undergraduates (Table 1, row 2). Investigators randomly allocated participants (n=44) to receive 12-hour, 8-week trainings in either the PM program or in MBSR, or to a wait-listed control group. Compared to controls, both the PM and MBSR groups showed significant reductions in perceived stress and significant increases in capacity to forgive. Only the PM group, but not the MBSR group,

showed significant gains in nonmaterialistic aspirations ($d=+0.65$). Large and significant increases in several measures of capacity to learn from spiritual exemplars were also experienced only by the PM group, but not the MBSR group. Both groups also showed significant gains in mindfulness, which were slightly larger in the PM group ($d=+1.08$) than in the MBSR group ($d=+0.93$). These gains in mindfulness mediated reductions in stress.

Table 5. Passage Meditation (PM): selected empirical research findings^a

Population and design	Main findings (All Are Statistically Significant)
RCT #6: college undergraduates (n=44)	See Table 1 (row 2), above.
RCT #7 ^b (RCT): Healthcare workers (n=58) randomized to • PM (n=27) • control (n=31) and assessed at pre- & post-intervention and 8- & 19-week follow-up	• Reductions in stress were large, sustained at 19 weeks, highly statistically significant, and mediated by adherence to PM practices • Favorable treatment effects on vitality, mental health, reduced emotional exhaustion, increased personal accomplishment, job satisfaction, and compassion (mediated by PM adherence) • Caregiving self-efficacy gains sustained at 19 weeks, significant, and mediated most strongly by one pointed attention (point 4)
Qualitative interviews of nurses (n=12) in RCT #6, before and after PM training	• Most (92 percent) reported that PM enhanced personal capacities that were essential for workplace performance • Workplace self-management was fostered by meditation (point 1) plus four PM points that could be directly used during the workday: mantram, slowing down, one pointed attention, and putting others first (points 2, 3, 4, 6).

Note: RCT=Randomized controlled trial; PM=Passage Meditation; MBSR=Mindfulness-Based Stress Reduction

^aEmpirical reports on PM research (k=9 to date) are listed online (dougoman.org) and were partially reviewed by Flinders et al (2007) and Oman and Bormann (2018), from which several summaries here were adapted.

^bRCT #7 empirical reports (k=4) include Oman, Hedberg et al (2006).

A second RCT of the full PM program investigated physicians, nurses, and other health professionals who received a 16-hour, 8-week training in the PM program. These health professionals experienced large reductions in perceived stress (Cohen's $d=-0.80$) as well as gains in several variables related to selflessness and compassion (see Table 5, RCT #7). Large stress reductions persisted after nearly five months (Oman, Hedberg et al., 2006). PM program intervention recipients also showed gains in their self-efficacy as caregivers. A mixed method interview study revealed more than a dozen distinct ways that the various PM points were perceived to synergistically support and reinforce each other in fostering caregiving efficacy (Table 5; Oman, Richards et al., 2008b).

CROSS-CULTURAL AND SPIRITUAL RESONANCE OF PM

Like the MRP, the full PM program possesses wide cultural resonance. Exalted spiritual figures and sacred texts exist in virtually every major religious tradition, and are given recurrent sustained attention in virtually every tradition. Fostering mental absorption in a well-chosen sacred text is a cross-culturally familiar orientation. Across diverse religious backgrounds, many who have engaged in PM practices have reported enhanced appreciation for their own tradition and its sacred texts. PM-induced gains in understanding and appreciation of diverse traditions and spiritual figures have also been reported by

many people raised within religious traditions as well as those raised outside of religious traditions. And just as for the MRP, many atheists and agnostics have comfortably used the PM program, which permits them to meditate on only passages that they find congenial.

The emphasis on sacred texts in PM is compatible with their role in many Abrahamic traditions as a focus for contemplative prayer. Many traditions endorse a variant of Foster's (1998, p. 29) statement that "*meditatio Scripturarum*, the meditation upon Scripture, is the central reference point by which all other forms of meditation are kept in proper perspective." Sacred texts also play important roles in Indian-derived Dharmic traditions, with many having been memorized and transmitted orally for millennia (Oman & Bormann, 2018). More novel is the use of sacred texts as a focus for meditation (*dhyāna*). But the PM program remains solidly grounded in Indian tradition (Oman & Bormann, 2018). One way to understand the PM method's approach to selecting and meditating on inspired texts is to view it as an innovative yet systematic implementation of Patañjali's recommendation in *Yoga-Sūtras* I.37 to meditate "on a great soul's mind which is totally freed from attachment to sense objects" (*vīta raga viṣayam vā cittam*) (Satchidananda & Patañjali, 1990, p. 60). Suitable passages transmit their authors' inspired and mindful consciousness.

Moreover, although the principle that "we become what we meditate on" is rarely asserted in the best-known modern popularizations of Asian meditation – and although accepting such a principle is unnecessary to benefit from the PM program – this principle is endorsed in numerous traditional Indian sources: the *Vedas*, Adi Śaṅkara, the *Purāṇas*, and Ramakrishna Paramahansa (see Oman & Bormann, 2018, p. 99, Table 1). The principle is also consistent with assertions in Patañjali's *Yoga-Sūtras* regarding "coloration" (*añjanatā*) of the mind by its meditative object (e.g., I.41), a dynamic also affirmed in Vyāsa's canonical commentary (*Yoga-Bhāṣya* I.37, I.41). In sum, in addition to fostering mindfulness, the PM program attention to inspired figures and texts resonates powerfully, but in a slightly varying ways, with diverse religious, philosophical, and cultural traditions.

IMPLEMENTATION

Expanding resources are available to health professionals, patients, and others who wish to implement the MRP's and PM's mindfulness-inclusive approaches. Many professional resources are available online. For implementing the MRP, clinicians may freely access (all in English):

- "Mantram for Self-Care," a series of four free online webinars via PsychArmor Institute (<https://psycharmor.org/courses/mantram/>)
- Video of Veteran describing his experience using mantram (<https://vimeo.com/85223994>)
- Blue Mountain Center of Meditation (BMCM) newsletter on Power of the Mantram (<https://bmcmwebsite.s3.amazonaws.com/assets/bm-journal/2013/2013Autumn.pdf>)
- Overview of Mantram Repetition Program Videos (<https://www.jillbormann.com/media>)
- A "how to" introduction to mantram repetition in the journal *Mindfulness* (Bormann, Kane et al., 2020)

For in-depth learning about the full PM program, including the three points that are incorporated into the MRP, a key resource is the website of the Blue Mountain Center of Meditation (BMCM), founded by Easwaran in 1960 (www.bmcm.org). Resources on BMCM website include:

- Full descriptions of each of the eight points;
- Access to dozens of recorded videos of introductory and advanced teaching talks on the PM program;
- Free webinar enrolment to learn about the full PM program or support its practice;
- Free enrolment in ongoing email-based support groups for PM practice (point 7);
- Information about local support groups for engaging in PM practice (point 7) in North America, Europe, and Asia;
- A wide range of other resources, including a freely quarterly newsletter.

Professionals seeking additional resources to implement MRP or PM approaches are also welcome to contact either of the two authors via email:

- For MRP questions, contact Dr. Jill Bormann (jillbormannphd@gmail.com; <https://www.jillbormann.com/>)
- For PM questions, contact Dr. Doug Oman (DougOman@post.harvard.edu)

Expanding and fine-tuning these approaches can, of course, benefit from future research.

CONCLUSION: WHY MINDFULNESS NEEDS MANY ROADS

This chapter has provided resources to expand professional mindfulness toolkits to better accommodate and synergize with diverse spiritual and religious orientations and backgrounds. It explicated the Passage Meditation approach, based on eight inter-related practices usable for diverse types of mindfulness support, and backed by more than 30 published research studies and seven RCTs. Such alternative “roads to mindfulness” are important for several converging reasons.

Perhaps most fundamentally, Burke (2012) has documented that relying on a single road to mindfulness is not optimal. People prefer different methods of meditation – even in the US, for example, Burke found that less than half may prefer explicit mindfulness as a mode of meditation. US national surveys attest to the specific interest in mantram-oriented meditation, practiced by about 1.6 percent of the US population (about 3.6 million adults), very similar to the number who practice mindfulness meditation, despite comparatively much less media promotion (1.9 percent, Burke et al., 2017).

Professional practice must respect such diversity proactively. Codes of professional ethics in psychology and many other health and human service professions mandate respect for religious diversity (e.g., American Psychological Association, 2002). Organizational accreditation in healthcare also increasingly requires established procedures for taking into account religious diversity of patients (Oman, 2018; Pearce, 2013). Yet contemporary mindfulness professional literature has been criticized as “ironically *unmindful*” of religious/spiritual diversity (Oman, 2020). More broadly, Walsh and Shapiro (2006, p. 228) have warned that the “major recontextualization and revisioning” of meditative and mindfulness practices “within an exclusively Western psychological and philosophical framework” – a recontextualization that all too often permeates the clinical delivery of mindfulness – is an “integration that feeds the global ‘colonization of the mind’ by Western psychology and ‘undermines the growth and credibility of other psychologies.’” Thus, Palitsky and Kaplan (2021, p. 2084) have argued that “religion... represents

a fundamental cultural competence consideration in the implementation of MBIs [Mindfulness-Based Interventions],” proposing that approaches to mindfulness intervention should become more “pluralistic.”

Such concerns underscore the value and urgency of implementing, normalizing, and investing in expanded pluralistic mindfulness toolkits that complement mindfulness-based interventions with mindfulness-inclusive interventions. We submit that the MRP and other PM approaches merit consideration as important and possibly foundational components of such expanded toolkits. From a population health perspective, proactive attention and respect for diversity will not only benefit individual patients, but will strengthen key forms of bridging social capital that stabilize society and foster population health (Oman & Syme, 2018a; see also Streib & Klein, 2018). Such considerations argue for policy attention and investment in enriched and diversified mindfulness toolkits. Questions needing exploration include how to structure and utilize such toolkits both face-to-face and online, and optimal functions within toolkits for the MRP, PM, MBSR, and other current MBIs.

This chapter has presented the Mantram Repetition Program and Passage Meditation as interventions for delivering mindfulness, highlighting the MRP as clinically applicable to an especially wide range of patient populations. These interventions each are usable by adherents to any major religious/spiritual tradition as well as by people outside of all traditions. Evidence indicates that each program fosters mindfulness. Each also proactively supports adherents in accessing spiritual resources within their own traditions. Efficacy in fostering a variety of health and well-being outcomes is supported by more than 30 empirical studies and seven randomized controlled trials. Resources for learning more and acquiring professional skills for various levels of implementation have been supplied. We hope that these ideas will be both informative and practical for colleagues around the globe as we seek ways to work individually and collectively to support and heal our patients, our fellow citizens, and our societies.

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KEY TERMS AND DEFINITIONS

Mantram Repetition Program (MRP): An empirically supported program, based on three practices taught by Eknath Easwaran, and developed by Jill Bormann and her colleagues in the US Veterans Administration Healthcare System.

Mantram Repetition: Repeating a mantram frequently at many times throughout the day – a “portable” practice.

Mantram: A powerful sacred word or short phrase derived from a spiritual tradition – see Table 3.

Meditation: As used here, a sitting practice involving sustained concentration on a single object, such as an inspired passage – see Figure 1.

Mindfulness-Inclusive: Practices such as PM and MRP that foster the practice and experience of mindfulness, without primarily emphasizing the precise contemporary *concept* of mindfulness.

Passage Meditation (PM): An empirically supported program of eight practices taught by Eknath Easwaran (2008a, 2016), based on meditating on an inspired passage – see Figure 1.

ENDNOTE

¹ Photograph of Eknath Easwaran used with the permission of the Blue Mountain Center of Meditation (<http://bmcm.org>).

Chapter 15

Interpersonal Aspects of Mindfulness and Concentrative Meditations

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ABSTRACT

The chapter discusses the interpersonal aspects of mindfulness and concentrative meditations in terms of the four Brahmavihara/bhavana, also known as four immeasurables. These are maitri/mettā (loving-kindness), muditā (empathetic, appreciative joy), karuṇā (compassion), and upeksha/upekkhā or samata (equanimity). This practice is considered pre-Buddhist (Hindu) and extra-Buddhist (Jain) in its origin, with references present in Vedas, Upanishads, Tantras, Bhagawad Gita, Yoga Vashistha, and Patanjali Yoga Sutras and further elaborated in Buddhism. This chapter will cover both conceptual and application dimension of the Brahmaviharas.

INTRODUCTION

Meditation is considered as ‘a means or technique to control the mind’ (Rao & Paranjpe, 2016). It is ‘deep exploration of mind’ which may lead to transformation of ourselves (Goleman & Davidson, 2017). Over the past few decades, meditation has emerged as a significant area of interest. Meditation can be defined as a self-regulatory practice aimed at obtaining the voluntary control of mental processes, through training of attention and awareness (Walsh & Shapiro, 2006, p. 228). The empirical research has demonstrated the potential of meditation to enhance mental well-being along with physical health (Brand et al., 2012; Davidson & McEwen, 2012; Kaliman et al., 2014; Ospina, 2007; Sedlmeier et al., 2012).

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There are various types of meditations and a common way to categorize them has been open awareness versus focused attention types. One of the popular forms of open awareness meditation is Mindfulness Meditation, wherein an individual attends to and examines, the stream of thought or the feeling state or one's sensory experiences, with a non-judgmental stance (Hofmann et al., 2011). The other type of meditation is concentrative meditation which involves focusing one's attention on a specific idea, image, sound etc. The focus of attention differs as per the tradition/technique. Such concentrative meditations have its own usefulness in terms of cultivating states of mind, specific skills or attitudes and have been discussed in Yogic-Vedantic traditions, as well as in Buddhism.

The research literature that examines the role of meditation as an intervention for mental health, principally focuses on the benefits of enhancing mindfulness for mental content and one's body. Such mindfulness-based interventions have empirically demonstrated reduction in a variety of negative psychological states, from depression and anxiety, to everyday stress (Hofmann et al., 2011). Further, traditionally the literature has focused more on the inner and transcendental experiences associated with these meditative traditions, which are known as 'nirvana' and 'moksha'.

However, the meditative traditions with its long and varied streams also include interpersonal aspects, but research in this area trails behind. Only in recent times the exploration of meditation has widened to include other types of meditations. The interpersonal aspects are about relationship between individuals and/or actual or imagined presence of other people. In the meditative tradition, one component of it can mean focusing attention on cultivating attitudes favorable to other people. Such interpersonal aspects need to be studied, as much as cognitive-affective aspects of meditation. These aspects are useful in the modern world, where majority of meditation practitioners live a life populated with interpersonal joys, interactions, concerns and suffering, which are intimately related to their mental health. In this context one may note that since ancient times, cultivation of certain qualities collectively known as Brahmaviharas, have been given prominence in India. These are maitri/mettā (loving-kindness), karuṇā (compassion), muditā (empathetic/appreciative joy) and upeksha/upekkhā, or samatva (equanimity). These emotions and attitudes are positive and interpersonal in their focus.

Positive Interpersonal Aspects: Attitudes and Emotions

Attitudes are predispositions towards something and are a combination of thoughts, beliefs (cognitions) and feelings (affect). Attitudes can influence behaviors, on the other hand behaviors can also influence attitudes. Similarly, emotions comprising of subjective experiences, physiological aspects and behavioral reactions (Nairne, 2000) can influence attitudes. One broad group of emotions has been categorised as social emotions, such as shame, empathy etc., since these are exclusively associated with social concerns, involve social appraisal and have a social function (Buck, 1999). Another way to categorise emotions is based on positive and negative valence, with positive emotions linked to approach motivation. Cultivation of positive emotions has been found to undo the after-effects of negative emotions, while also building cognitive and social resources (Broaden and build theory, Fredrickson, 2001). Although no single theory has been proposed to tie the variety of positive interpersonal emotions together, the concept of brahmaviharas may easily do so.

BRAHMAVIHARA

Sarve-bhavantu-sukhina (May all be happy)

Sarve-santu-nirāmayāḥ (May all be free from infirmities);

Sarve-bhadrāṇi-paśyantū (May all see good)

Maa-Kaschid-Dukha-Mapnuyat. (May none have misery of any sort)

Om Shanthi Shanthi Shanthi. (Om, peace, peace, peace)

Vājasaneya Samhitā of Sukla Yajurveda

The term Brahmavihara literally means ‘divine abode’ (‘brahma’ + ‘vihara’) or living in a sublime realm, with loving-kindness (maitri/ mettā), empathetic, appreciative joy (muditā), compassion (karuṇā) and equanimity (upeksha/ upekkhā, or samata). Cultivated without limits and discrimination, these are also called four immeasurables (*apramana*) or illimitable (Bodhi, 1993).

This practice is considered pre-Buddhist (Hindu) and extra Buddhist (Jain) in its origin, with references present in Vedas, Upanishads, Tantras, Bhagawad Gita, Yoga Vashistha and Patanjali Yoga Sutras. Chandogya Upanishad states matri and ahimsa lead to *Brahmaloka*. Similarly, ancient figures practicing brahma-vihara are mentioned in Buddhist text Digha Nikaya (e.g. King Govinda). The practice of Brahmavihara was later assimilated in Buddhism (Aronson, 1996; Harris, 2001; Wiltshire, 2013).

The Four Brahmavihara Immeasurables

Maitri / Metta/ Loving-Kindness (Sarve-Bhavantu-Sukhina)

The root of the term ‘mitra’ in Sanskrit means to embrace, to contain and hold, and to link together the parts or materials of a whole. Mitra means friend and **maitri** is the quality of being a friend. It is interesting to note that the earliest mention of this psychological quality may be in the form of Mitra, the Vedic God of truth, dawn and friendship, who abhors violence.

“Mitra is considered to be the Lord of Love, a divine friend, a kindly helper, the most beloved of the Gods as he brings in our reach divine enjoyment and perfect happiness. He creates in us a happy rightness of mind and feeling—sumati, a state of grace, an unhurt abiding-place within, “free from all undelightfulness. Often invoked in company of Varuna, since Mitra cannot fulfil his harmony, except in the wideness and purity of Varuna” (Sri Aurobindo, in The Secret of the Vedas).

In later Buddhist texts, **Metta** (Pali) is described by Buddhaghosa as the inner state of being a friend (mittassabhāvo-mettā), having unconditional, sibling like affection and goodwill for others, which is free from lustful attachments. It can be cultivated by developing affectionate connection and sense of commonality and oneness with others. Once present, it results in removal of ill will and hatred. A caution is required here so that an individual does not confuse this with self-serving lust/love, which is deemed as a close enemy of Maitri. Another barrier to metta is having ill-will/ hatred towards others (Aronson, 1996). Maitri is the foundation, on which other brahmaviharas are built.

In modern research on **loving kindness meditation**, various beneficial outcomes have been reported, such as increase in positive emotions, building of personal resources, such as mindfulness, acceptance, purpose in life, self-compassion, social support and enhanced life satisfaction, along with decrease in illness symptoms, self-critical perfectionism and thereby depressive symptoms (Fredrickson et al., 2008; May et al., 2014; Shahar et al., 2015).

There is a dearth of clinical studies in this area although the practice of loving-kindness meditation has been found to be applicable and beneficial in two studies done by Johnson and his colleagues (2009 and 2011) on small sample sizes of patients having Schizophrenia Spectrum Disorder with prominent negative symptoms. The findings of the studies indicated that practice of loving kindness led to a reduction in negative symptoms, anhedonia, asociality, and avolition in the sample, with simultaneous improvements in positive emotions, hope, environmental mastery, self-acceptance, satisfaction with life, and psychological recovery (Johnson et al., 2009; Johnson et al., 2011). In war veterans with Post-Traumatic Stress Disorder (PTSD), Kearney and his colleagues (2013) found enhanced self-compassion and mindfulness using this approach along with lower levels of depression and PTSD symptoms.

Karuna/Compassion (Sarve-Santu-Nirāmayāḥ)

Karuna or compassion is the practice of cultivating kindness for others. It is triggered by seeing someone helpless amidst pain and suffering, leading to a wish to provide them with relief and protection from difficulties, and wanting to see them happy (e.g., *maa-Kaschid-Dukha-Mapnuyat*). This attitude causes reduction in violence and infliction of harm or injury, along with an increase in peaceful and non-violent thoughts. Karuna is not pity, which is colored by egoism. Unlike loving-kindness meditation which aims to develop unconditional love and kindness, the practice of compassion focuses on cultivating deep, genuine sympathy for those in misery (Grossman and Van Dam, 2011; Hopkins, 2001). Even though both forms of these meditations are interpersonal in their approach, they play an important role in the mindfulness practice (e.g., Bodhi, 2005; Kuan, 2008; Sanharakshita, 2004; Shen-Yen, 2001; Suzuki, 2011). Empirical research has also indicted that both mindfulness and self-compassion mediate the effects of Mindfulness-Based Cognitive Therapy (Kuyken et al., 2010).

In modern intervention research, a variety of programs have been developed aiming towards compassion for self and others (Gilbert & Procter, 2006; Leary et al., 2007). When one generates a desire to heal oneself, while being kind and mindful, it is considered as self-compassion and includes awareness of one's shared humanity. In a series of studies, Leary and his colleagues (2007) found that self-compassion reduces the cognitive and emotional reactions to unpleasant, negative events, while also having a protective effect especially for those suffering from low self-esteem. Those with high self-compassion are also less defensive and able to take personal responsibility in negative events. Gilbert and Procter (2006) developed a self-compassion intervention program (compassionate mind-training) to target self-criticism and shame by enhancing self-soothing for negative emotions. This program was tested in personality and mood disorders resulting in improvement in anxiety, depression, and self-criticism. On the other hand, in participants diagnosed with paranoid schizophrenia having hostile auditory hallucinations, it led to decreased anxiety, depression, and obsessive-compulsive disorder. It also reduced interpersonal sensitivity, along with psychoticism and paranoia, and the malevolence and persecutory nature of auditory hallucinations became more reassuring voices (Mayhew & Gilbert, 2008).

Other directed compassion is often cultivated and studied alongside loving kindness meditation. The findings on fMRI studies indicate an increased activation of circuitry related to empathy and theory of

mind on combined practice of compassion and loving kindness meditation (Lutz et al., 2008). Another program, cognitive-based compassion training (CBCT) was found beneficial for social cognition and empathic accuracy (Mascaro et al., 2013).

Mudita/Sympathetic Joy or Appreciative Joy (Sarve-Bhadrāṇi-Paśyantu)

Mudita is a state when one rejoices at the success and well-being of the other. It is initiated by the sight of the prosperity, joy and good fortune of others, and results in removal of dislike, aversion, envy and jealousy. Empirical research in past has usually focused on either loving-kindness meditation or compassion meditation, or an integration of these. Zeng and his colleagues (2017) conducted the first study comparing Compassion-Based Meditation (CM) with Appreciative Joy Meditation (AJM) and found that both programs enhance positive, pro-social, other-focused emotions but CM group reported increased sadness and decreased happiness, whereas AJM group reported enhanced happiness and suppression of interpersonal negative emotions. Later, Zeng and his colleagues (2019) developed an intervention program Heart of Joy, focusing on appreciative Joy Meditation. They reported that it led to higher positive and pro-social emotions, satisfaction with life and lower jealousy and other negative emotions.

Upeksha/Equanimity (Om Shanthi Shanthi Shanthi)

Upeksha, or equanimity indicates towards a mind which is balanced and peaceful, in spite of attraction or repulsion without experiencing the roller coaster ride of elation and depression. Interpersonally, it is characterized by a sense of neutrality and equal mindedness, which is devoid of either strong likes or dislikes. This can be cultivated by taking a larger perspective based on law of Karma and observing life and experiences from an impartial witness stance. Upeksha seems to be complex process and is hardest to cultivate. In the psychological literature, equanimity has been described as including a variety of processes from psychological self-distancing or meta-awareness, accepting, non-judging, non-attachment, patience etc. It may not only result in decreased physiological, emotional arousal, cognitive rumination and depressive reactions. More importantly, it may also act as a springboard for self-reflection, by allowing mental calm and equilibrium to prevail in instances of provocation (Ayduk & Kross, 2008; Carmody et al., 2009; Desbordes et al., 2015; Kross et al., 2005; Teasdale et al., 2002). Taking such an impartial witness stance, is like psychological self-distancing and meta-awareness, which is required for therapeutic change (Ayduk & Kross, 2008; Kross et al., 2005).

When one treats one's thoughts as short-lived and inconsequential mental events, inner space can be created, extinguishing habitual maladaptive behavior responses and allowing choice of an optimal response based on the current situation. Thus, it may promote cognitive flexibility and psychological health (Kashdan & Rottenberg, 2010). Another interesting take on equanimity was provided by Hadash et al. (2016). They conceptualized equanimity as an intention of acceptance of all experiences, irrespective of its pleasantness or unpleasantness (hedonic tone), which goes with decreased physiological arousal (Hadash et al., 2016). Further it includes separation of desire from actual or imagined experiences, irrespective of the hedonic tone (Hadash et al., 2016). This model includes higher tolerance for distress and increased acceptance, as well as lower experiential avoidance and thoughts suppression (Hadash et al., 2016). This may lead to decreased cognitive reactivity to emotions and anxiety sensitivity (Hadash et al., 2016). The commonest intervention studied for enhancing equanimity is related to mindfulness,

where just after four sessions a decrease in reactivity to unpleasant experiences was found; however there was no change in the attitude of acceptance (Hadash et al., 2016).

No published study was found with intervention primarily or predominantly aimed at increasing equanimity. Desbordes et al. (2015), have emphasized equanimity needs to be studied as an outcome of meditation and other contemplative interventions. One stream of work related to this concept would be Samata-jhana meditation, which is similar to the tradition of dharana-dhyana and covers focused meditation.

Practice of Brahmavihara

Patanjali Yoga Sutra proposes that by deep focus and contemplation (samyama) on maitri and related feelings (karuna and mudita), they become stronger.

Maitry-adisubalini (“By performing Samyama on friendliness, etc. comes strength of the quality” - Patanjali Yoga Sutra, Verse 3.24, translation by Taimni, 1961).

This specific type of contemplation ‘Samyama’ is a combination of three processes, i.e. fixed attention (*dharana*) contemplation (*dhyana*) and concentration (*samadhi*) and happens in stages (Patanjali Yoga Sutra, III.1-6, explanation by Vyasa and Commentary by Misra, in Woods, 1914).

Further, cultivation of brahmaviharas is also helped by the process of ‘*pratipksha bhavana*’ where one replaces negative thoughts and feelings by its opposite (whatever one dwells upon in one’s mind), for e.g. anger and hatred by love.

Vitarka-badhane-pratipaksa-bhavanam. (“When the mind is disturbed by improper thoughts constant pondering over the opposites, is the remedy” - Patanjali Yoga Sutra, Verse 2.33, translation by Taimni 1961).

The practitioners are supposed to cultivate friendliness towards those who are gleeful, compassion towards those who are suffering, delight for the virtuous and equanimity towards the non-virtuous. Yoga sutra further discusses how such a cultivation of maitri, mudita, karuna, can help overcome various negative emotions like envy, jealousy, anger etc. It can thereby increase Satva and lead to a stable mind fit for deeper meditation (Patanjali Yoga Sutra, explanation by Vyasa and Commentary by Misra, in Woods, 1914).

Maitri-Karuna-muditopeksanam-sukha-dukha,-punya-apunya-visayanam-bhavanatah-citta-prasadanam (“The mind becomes clarified by cultivating attitudes of friendliness, compassion, gladness and indifference respectively towards happiness, misery, virtue and vice. Patanjali Yoga Sutra, Verse 1.33, translation by Taimni, 1961).

Interconnection: Finally, it is also important to mention that one needs to develop some sense of interconnection with others, for cultivating brahmavihara. In the vedic tradition the practice of brahmavihara is linked to the idea of an inherent oneness (*Tat Tvam Asi*). It is beautifully discussed in the Isa Upanishad as ‘He who sees all beings in his own self, and sees his own self in all beings. He does not hate anyone thereafter’ (*Yasthu-sarvani-bhutani-aathmanyeva-anupasyathi; Sarva-bhuteshu chaaathmaanam-thato-na-vijugupsate*). Although, this advanced state is not easily reachable, one can begin from where one is currently which may be starting the practice from ‘dharana’ stage. As Yogi Philosopher Sri Aurobindo says (Commentaries on Isha Upanishad: Part One, pg 35-36), “Although in the initial stages, one needs to understand and sympathize with others, widen one’s love, compassion or fellow-feeling for others and work for others. As one experiences self-realization, they directly perceive essential oneness in multiple forms of the universe.” In the Buddhist tradition, this interconnection is associated with the

theory of interdependence, where all phenomena are connected. People can begin by contemplating on the common experiences of being a human, shared difficulties and hurdles that everyone faces and the fact that everyone is trying to be happy, though their ideas of it and how to achieve it may differ from theirs. This is similar to the yoga-vedantic idea that everyone is trying to experience their real nature of 'Satchidananda' (Truth-Consciousness-Bliss) and the life is a stumbling journey towards it.

The Buddhist tradition has further discussed inimical and favorable conditions for the four brahmaviharas/apramana (*Visuddhimagga*). The practice goes from cultivation of these sentiments for an individual to gradually extending it to the whole world, in an object neutral manner, i.e. without any change in the sentiment based on who the target object might be. The stages of practice of these sentiments may go from 1) self; 2) a close friend (i.e., a living person who is intimate in a non-sexual manner); 3) a neutral person (i.e., a familiar person with whom one does not share either positive or negative feelings); 4) a "difficult" person (i.e., someone who is often a trigger for negative feelings). Finally, the focus is on 5) all the above (self, close friend, stranger or a neutral person, and the difficult person). Here one may equally divide one's attention amongst all of them. The practice may end with 6) focus on all sentient beings, all directions, and the entire universe. The practice goes from easy to difficult focus of contemplation (Buddharakkhita, 1989; Lama, 2005; Salzberg, 1995). Thus, it is known as the practice cultivated towards all, without any limits or the four immeasurables/illimitable (Bodhi, 1993). Based on one's mental disposition and needs, one can choose to meditate on either of these qualities.

The empirical studies have mostly been done on cultivation of loving-kindness and compassion using either only meditation, or a mix of didactic teaching, group discussions, meditation practice and homework assignments to incorporate these concepts into daily life. The practice may begin with cultivating a particular feeling and then extending it to increasing number of people. It may also include discussion and reflection on helpful factors and barriers in developing the four brahmaviharas. To take an example of loving kindness, one may generate this feeling for oneself initially and then towards a loved one or some for whom it comes naturally (or vice-versa), then it may be extended to someone neutral, before imagining someone who comes across as difficult or challenging and continuing this feeling for that person too. Finally, the practice may end with extending this feeling towards everyone.

When it comes to compassion, Negi (2013) has developed cognitive compassion training based on 'Lojong' tradition of Buddhism which reverses harmful thoughts, emotions and behaviors into those beneficial to self and others and is also similar to '*pratipaksha bhavana*' of Yoga tradition. A protocol for developing compassion by Ozawa-de Silva and Dodson-Lavelle (2011), includes 8 modules starting with enhancing attention, mental stability and awareness of the mental processes. It then goes on to cultivate self-compassion, equanimity, appreciation and gratitude, affection and empathy and finally ending with aspirational and active compassion. Another intervention known as compassion focused therapy was developed by Gilbert (2009) by drawing from developmental, evolutionary, social and Buddhist psychology. It begins by formulating negative self-beliefs and thoughts (e.g. shame, low self-worth) as originating from early life experiences impacting the threat-protection system. Then it aims to cultivate 6 attributes (distress tolerance, sensitivity, empathy, non-judgment, sympathy, care for well-being) as components of self-compassion. The specific interventions focus on compassionate attention from therapist while identifying the strength of client and helping them notice their positive qualities, compassionate and balanced reasoning based on dialectical behavioral therapy and cognitive behavioral therapy. It includes compassionate *imagery* by exploring their ideas of compassion and helps generate these feelings for self and compassionate *behavior* while facing frightening activities by use of warmth, compassion and gentleness. It also involves compassionate *feelings* for self and others and from others and compassion-

ate *sensations* in the body (e.g. sensations of warmth, kindness and support). The entire therapy aims at helping client feel safe in therapy, replace self-criticism with kindness and develop affect regulation.

Zeng and his colleagues in 2019 have specially developed a program on appreciative joy (Heart of Joy), which again included meditation practice, didactic teaching and group discussions. It had 4 weekly group sessions, of 90 minutes duration each, with meditation to be also practiced at home. The program starts with breathing meditation and practice of appreciative joy for friends, then for self and continues for strangers and finally for difficult targets. Johansson and his colleagues (2015) included all 4 brahmaviharas into an advanced mindfulness module, which was offered to participants as an 8-month program having monthly meetings of 2.5 hours duration. It ended with an all-day retreat on four immeasurables and included insight dialogue training. The 8 sessions covered introduction to the curriculum, along with brief meditations (on sensations, breathing, walking, metta, appreciative joy, mountain and balance, remembering and visualizing), didactic teaching on mindfulness, friendliness, acceptance, appreciative joy, peace, equanimity etc. along with noticing pleasant and unpleasant experiences (in body and mind) and increasing awareness of one's choice in it. It moves from self to others, to dialogue training for developing mindfulness in communication and relationships. The program ends with letter-writing to self as a reminder of insights. Group-dialogue and reflections are part of every session.

Another module based on Yoga-Vedanta tradition was developed and successfully tested with caregivers in Indian context by the authors (Sahota & Agrawal, 2020).

Supportive Practices: Yama and Sila

The term brahmavihara originally was associated with not only the foundational practice of maitri but also *ahimsa* or non-violence (*ahimsa* and *maitri* leading to *Brahmaloka*, Chandogya Upanishad). In the entire contemplative-meditative tradition, there is an emphasis on ethical living. In Patanjali Yoga Sutras, the other-directed practices of *Yama* (Sutra 2.30-2.31) are the 1st step, which along with *Niyama* make the base on which higher order (*antarang*) practices of 'Astanga Yoga' (eightfold path) are built. They focus on harmonizing outer aspects of our nature (*bahiranga*). Yama are yogic ethics and considered to be the basic universal rules of *dharma* (right living) and social conduct. These are considered as *maha-vrata*, take precedence over all other *vrata* and their perfection leads to unfolding of highest potential in humans (*siddhis*, Sutra 2.35-2.39). There are 5 yamas, including *ahimsa*/non-violence which again is considered to be the root of all other yamas. *Ahimsa* is described as not wishing harm to any creature in thought, word or deed. The other four yamas are, *Satya* (truthfulness) described as doing what we say and saying what we do (pleasant, beneficial and kind truth); *Asteya* (non-stealing) or not taking what rightfully belongs to others and not even harboring such desires; *Aparigraha* (non-coveting, non-possessiveness) which emphasizes material simplicity and custodianship of resources (not acting as the owners). Behind the other yama of *Brahmacharya* (continence, control of sexual energy) is avoiding misidentification with non-self which may impel someone to seek fulfillment at sensual level (Taimni, 1961).

Similar codes have been discussed in Buddhism and Jainism. In the eight-fold path of Buddhism, *sila* are the prescribed moral path for monks and lay person alike although it differs in numbers for both (5 for lay people and 10 for monks). The common 5 include non-violence, truthfulness, continence, non-stealing and abstinence from intoxication (Bodhi, 2010). In all these above-mentioned traditions, these ethical practices were often given more importance and even first priority than the advanced practices.

Benefits of Brahmavihara

When we examine the benefits of Brahmaviharas, which involves practices that are primarily interpersonal in nature, we can see that they not only enhance subjective well-being (increase in positive emotions and life satisfaction and decrease in negative emotions), but also alter the attitude towards self and others while facilitating development of kindness, empathy and similar other positive social emotions. Empirical research has repeatedly suggested that inculcation of even one aspect of this practice may result in gains with respect to awareness, acceptance, self and other focused compassion, perspective taking, emotional concern and altruistic actions. Further, the practice aids in developing an acceptance of the unavoidable sufferings in life and decreases distress, self-criticism, anxiety depression, as well as sense of relative deprivation, along with envy (Boellinghaus et al., 2013; Fredrickson et al., 2008; Leppma & Young, 2016; Zeng et al., 2015). In the Indian context, Smrithi et al. (2017) had found that the peer-group nomination ratio wisdom in a college going sample was positively correlated with brahmaviharas and non-attachment (anasakti).

In clinical situation, these modules have been found to be effective in veterans for reducing their PTSD (Kearney et al., 2013) and for reducing negative symptoms in schizophrenia (Johnson et al., 2011). Further, it has been studied in professionals engaged in mental health care, such as using loving-kindness meditation for fostering well-being and cultivating compassion and self-care in trainee psychotherapist (Boellinghaus et al., 2013) and loving-kindness meditation for enhancing cognitive and affective empathy and decreasing personal distress in student counselors (Leppma & Young, 2016). In a sample of family care-givers of people having mental illness, a yoga-vedanta-based brahmavihara module was found to be beneficial in reducing psychological distress (Sahota & Agrawal, 2020).

CLINICAL EXPERIENCES FROM PSYCHOTHERAPY PRACTICE

The first author has clinical experience of using loving kindness meditation in own therapy practice and in few where she was the supervisor. The Case I was that of a young married woman who presented with the history of marital conflict and extra marital affair along with depression in the context of Borderline Personality Disorder and childhood sexual abuse. The loving kindness meditation was tentatively introduced when the mindfulness-based dialectical behavior therapy (DBT) and couple's therapy had stalled due to intense emotion dysregulation. Since the client had a negative self-image, loving-kindness initially was mainly focused on self. As she started feeling better, loving kindness was expanded to others and gradually therapy was continued based on initial plan leading to achieving the goals of in-patient therapy and successful termination later. Another case (Case II) was that of a middle-aged married woman, with significant emotional dysregulation, interpersonal difficulties and high-risk behavior in the context of depression, drug-abuse and Borderline Personality Disorder and cardiac illness. In this case, the loving kindness meditation was introduced after the successful completion of DBT based therapy. Although the client had improved, she reported feeling dry inside and joyless inside. Thereafter loving-kindness meditation was introduced resulting in significant improvement in the feeling of happiness and relationship with her family.

Clients diagnosed with emotionally unstable personality disorder have a pattern of hostility, antagonism, negative affect and negative self-image, which often comes with attachment injuries. This may also lead to difficulties in psychotherapy practice since the relationship between therapist and client is

tested repeatedly. DBT based CBT with a component of mindfulness is usually the treatment of choice. Based on clinical experiences it may be hypothesized that one important aspect of this maitri/loving-kindness practice could be creating 'an unhurt abiding-place within' which may overcome such deep sense of hurt along with cultivating a 'happy rightness of mind and feeling' (as earlier mentioned by Sri Aurobindo about Mitra). This may make it easier for rest of the therapy to progress.

First-Person Experiences: Method triangulation or use of multiple research methods exploring same variable has been emphasized for deeper understanding of a variable. This includes using first-person research frequently discussed in the field of contemplative-meditative tradition, Indian psychology and consciousness research. The first author had intensely practiced loving-kindness meditation during a transition phase and also maintained a diary and blog. Later analysis of this data suggested initial difficulty in the process, but with intention and exploration the practice became easier. The practice further resulted in a state of mind which was more open, gentle and kind. Although, as the intensity of practice decreased, even the benefits started fading over time. Similar findings have been reported in the literature, where the regularity of meditation and/or other contemplative practices have been noted to be an important predictor of the outcome. However, subjectively a less transient effect is that of memory (*smriti*) whereby the experience of the practice gets encoded in our mind and becomes an important mode for future practice. The second author has also conducted research in this area and in the process found while each of these Brahmaviharas were an every-day feeling, embodying them constantly in life is difficult. Hence, one cannot ignore the significance of the regular practice.

CHALLENGES AND ISSUES

One of the major challenges in application of brahmavihara-based intervention is the lack of training of mental health professionals, who then cannot use it successfully in their work. Further, the engagement with this practice has been reported to be emotionally challenging by trainee therapists, in spite of various benefits on self, others and clients (Boellinghaus et al., 2013). However, that might be true with any other meditation practice, like mindfulness. Further, there is limited research in this area and it is still a developing field. Even the studies which are available, generally seem to have poorly controlled design, with small sample size, high dropout rate and inadequate assessment methods.

SOLUTIONS AND RECOMMENDATIONS

More work is required in this area, research and training, and application. One of the contexts for application of brahmavihara practice could be the modern corporates and other work contexts, which are inherently interpersonal in nature, where people from diverse backgrounds and varied skill-set work towards a common objective. With such diversities, there may be opportunities for cultivating acceptance. But it can also breed feelings of jealousy, dislike, hate, maladaptive competitiveness etc., at times sabotaging the organizational goal (Saraswati, 2013). The well-being of the employees plays a crucial role in the success of an organization. The empirical studies in the field of Positive Psychology demonstrate the role of positive individual experiences and organisational culture, in making a profitable organization. To counter the negative feelings and interactions, Brahmaviharas meditations may be introduced for enhancing employee well-being and better interpersonal relationships, along with lowering their anxiety,

depression, psychological distress, envy etc. In fact, one study found that ethical decision making was associated with loving kindness, compassion, sympathetic joy and equanimity (Jayawardena-Willis et al., 2019).

Another area might be couple's and family therapy where it is common for clients to come up with negative emotions such as anger, hatred, sadness etc. since not only the practice enhances positive emotions but also undoes the effect of negative emotions (Fredrickson et al., 2008). This may further be extended to group-based conflict-resolutions work in the community. Brahmavihara-based intervention may also be successfully used on a regular and scaled up manner to enhance self-care and protect professional and non-professional care givers from burn-out, in the field of health and especially mental health. Due to the demands of caregiving, brief interventions may be most useful.

DISCUSSION

The Indian spiritual tradition is a rich field, fertile with various psychological models and insights. Although there are various concepts and techniques available which may be successfully used for psychotherapy in modern times, the efforts in this direction have been few. While yoga has been included in mental health interventions, however the focus is predominantly asana and pranayama (Forfylvow, 2011; Vorkapic & Range, 2014). The psychological concepts are either ignored or studied in a decontextual, diluted or even distorted manner (Cornelissen, 2001). Thus, it is important to understand these concepts, the associated assumptions and practices and also include them for one's own growth as a therapist (Agrawal & Cornelissen, 2020).

The interpersonal aspect of meditative traditions is one such area of study. Interpersonal focus in contemplative traditions also makes them a moral system against the criticism of being a self-centered system with sole focus of 'self' liberation. Thus, we see that the practice of Bhrahmaviharas is also associated with ethical practices (*Yama* in Yoga and *Sila* in Buddhism). The practice has potential to improve personal, interpersonal and universal well-being, however one needs to understand the assumption of interconnected universe behind. If utilized as a stand-alone practice it may remain limited in its ability to transform our lives. Although there is some research in the field, majority of it has focused on loving kindness and compassion-based meditation. Equanimity especially has been ignored or reduced in its meaning to mere psychological distancing and not as an entire practice in itself to experience highest wisdom and liberation (*Sthitaprajna*).

FUTURE RESEARCH DIRECTIONS

We can conclude that the research in the area of Brahmviharas is still in its infancy and progressively developing, and the studies done on all four attitudes are especially lagging behind. However, the preliminary findings substantiate the potential of this practice in cultivating, preserving and increasing personal and interpersonal well-being. Based on the previous research and author's experiences, it may be suggested that the future research may focus on:

1. More studies need to be done in the clinical population, which may then be used for theory building, longitudinal research and interventions in different population. Although, the first author

has noticed the benefits of this practice in emotionally unstable personality disorder, however no empirical study has been found. Difficulties with empathy and intimacy, along with that of self-image and self-direction are common patterns in personality disorders (DSM 5- alternate version) and the traits of hostility, antagonism, manipulateness, negative affect are common, especially in cluster B (Borderline Personality Disorder, Narcissistic Personality Disorder, Antisocial Personality Disorder). This may be an area worth studying.

2. Another area of potential research may be that of marital and family conflict and inclusion of these practices in couple's and family therapy.
3. Intervention research may be conducted in professional and non-professional care givers in the field of health, especially mental health to reduce burn-out and enhance resilience building practices.
4. Studying it in non-clinical population, especially in educational and organizational context. If proven effective, these practices may be scaled up for supporting people to flourish at home, in school/ colleges and at work place, both in terms of intra-individual (emotional) and interpersonal areas. Brahmaviharas based meditations may be introduced in the organizational setting, for employee well-being and better interpersonal relationships along with lowering of anxiety, depression, psychological distress, envy etc.
5. Neuro-psychology related variables may also be explored with interpersonal aspects of meditation, as it has been done with other types of meditation.
6. Research has mostly focused on limited practices (loving-kindness and compassion) and needs to be expanded to all four of them along with supportive practices such as non-violence. Further yoga-vedanta based module needs to be further studied empirically.
7. Patanjali Yoga Sutra, recommends cultivation of four bhavanas /Brahmaviharas for transcending various challenges of meditation, which includes dullness of mind, doubt, procrastination, distractibility etc. This practice may further purify the mind and prepare it for samadhi, which is the deepest stage of meditation. However, research has not been conducted on these effects and may be a worthwhile pursuit.
8. Triangulation of method needs to be utilized, with more first-person research by the therapist-researcher, which in turn may enhance their own well-being.

CONCLUSION

It may be concluded that the interpersonal aspects of meditative traditions are an important component and have rich insights to offer and needs to be given more attention. The Brahmavihara practices along with yama-niyama can add to current interventions in the field. The limited research indicates a variety of benefits. However, the research and application need to be further expanded to a variety of traditions, concepts, techniques and population. Interpersonal aspects of meditations have potential for both promotive mental health programs and building treatment-oriented psychotherapy. Further it may also be helpful for a researcher and a clinician by becoming a practitioner themselves.

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KEY TERMS AND DEFINITIONS

Brahmavihara: A term used to denote four sublime states (Maitri, Mudita, Karuna, and Upeksha) that are cultivated towards all beings without limitation and discrimination, both in pre-Buddhist and Buddhist traditions.

Karuna: A practice of cultivating kindness for others on seeing them in pain and suffering, with a wish to provide them with relief and protection from difficulties, and wanting to see them happy.

Maitri: A practice of cultivation of friendliness, unconditional affection and goodwill towards self and others that is free of lustful attachment.

Meditation: A technique that aids in obtaining a voluntary control of mind through extensive training of attention and awareness. It can be of two types: open-awareness and focused-attention type.

Mudita: A practice of cultivation of joy and delight at the sight of success, good fortune and prosperity of others, with removal of dislike, aversion, envy, and jealousy.

Sila: The prescribed moral path in Buddhist tradition for monks and lay person alike. Although it differs in numbers for both (5 for lay people and 10 for monks). The common 5 include non-violence, truthfulness, continence, non-stealing, and abstinence from intoxication (Bodhi, 2010).

Upeksha: A practice of cultivation of a sense of neutrality and equal mindedness, which is devoid of either strong likes or dislikes.

Yama: A set of yogic ethics and basic universal rules of dharma that lead to unfolding of highest potential in humans. There are 5 yamas: 1) *Ahimsa* (not wishing harm to any creature in thought, word or deed), 2) *Satya* (doing what we say and saying what we do), 3) *Asteya* (not taking what rightfully belongs to others and not even harboring such desires), 4) *Aparigraha* (non-coveting, non-possessiveness), and 5) *Brahmacharya* (continence, control of sexual energy).

Chapter 16

The No–Self of Zen/Gen: Examining the Interpersonal Aspects of Mindfulness

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ABSTRACT

The Buddhist practice of mindfulness has enjoyed a tremendous surge in popularity in the last few decades, both in the popular press and in the psychotherapy literature. However, the philosophy and practice of mindfulness has often been erroneously equated with quietism or a withdrawal from the world of action, misconceived as a practice of sterile, self-absorbed contemplation. On the contrary, the core Buddhist conception of existential freedom lies in the belief of doing over thinking, and intersubjectivity over introspection. Moreover, the cultural differences in how one conceives oneself, particularly in relation to others around, prove to be a critical factor in determining the efficacy of various clinical techniques including mindfulness practice. The chapter explores the interpersonal dimensions of mindfulness philosophy and practice, and the implications of such paradigms to question whether the current methods of intervention and training based on internality are sufficient for the clinical application.

INTRODUCTION

The practice and aesthetics of spirituality is claimed to be one of the most popular Eastern cultural imports to the West. The Buddhist practice of mindfulness in particular has seen a great surge in popularity both in the mass and social media as well as in the academic literature in last few decades (Davis & Hayes, 2011; Carrette & King, 2005; Purser, 2019). Its industry is currently worth \$4 billion, with the practice of mindfulness being adopted as part of corporate training by technology giants such as Google and Apple (Purser, 2019). Among its benefits shown in research are: improved concentration and mental clarity, moderation of psychological distress such as anxiety and depression, enhanced emotional intelligence such as objectivity, affective tolerance, equanimity, compassion and the capacity to attend to others and one's own self with benevolence (Davis & Hayes, 2011; Wallmark et al., 2013; Pratscher et al., 2019;

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Farris, et al., 2021). More specifically, the practice and philosophy of Zen (禪) has enjoyed an increasing attention thanks to such influential figures as D. T. Suzuki, Alan Watts, John Cage and David Lynch, before getting picked up by popular brands, Hollywood celebrities and social media influencers. Zen is often characterised by formal qualities and experiential concepts such as simplicity, introspection and quietude, with a slow and meditative attitude, stylistically employing monochrome or muted colors and natural material in terms of design. With its ascetic quality, minimalism, particularly in design such as fashion and architecture, has therefore been closely linked to Zen. However, what such modern Zen design represents is often far from the aesthetics of the original Japanese style (Kurosawa, 2004). Cox also claims that the artistic appropriations by post-war creatives in the West bear no physical resemblance to the Japanese Zen and its arts, reducing the historical and anthropological complexities of the practice into a mere aesthetics style (Cox, 2003). Zen is said to have been transplanted and transformed in the West, carefully manufactured into a set of media representations, which are central and critical to the shaping of the entire spirituality industry. While Zen philosophy and practice has often been misconceived to represent introspection with the wellbeing industry focuses on the improvement of the internality of the *self*, the chapter explores the interpersonal dimensions of Zen and question the efficacy of the current paradigm for clinical application.

PART 1: THE ART OF WELLNESS

The general mindset of Generation Y, coupled with the rapid advances in the new media technology, has been suggested to have had a huge impact on the recent resurgence of the Zen inspired design and lifestyle. Despite probably being the most educated generation in history, the millennial generation is faced with a global economic recession, poor career prospects and delayed milestones such as home ownership. Having seen their parents fall victim to downsizing and frequent layoffs in spite of long working hours made them wary of pursuing the same path, many are said to be turning for satisfaction in a different direction, favouring the idea of “making a life” over “making a living” (Eddy S.W. Ng., 2010). In his 2014 *New York Times* Bestseller book, *Essentialism – the disciplined pursuit of less*, Greg McKeown makes a case for the importance of living by design and not by default by eliminating nonessentials and consciously distinguishing the vital few from the trivial many (McKeown, 2014). Marie Kondo, in her book *The Life-Changing Magic of Tidying Up: The Japanese Art of Decluttering and Organizing*, along with her award-winning Netflix series, *Tidying Up with Marie Kondo*, also emphasises the disposal of redundant and superfluous items to concentrate on essentials, with her now famed mantra: “*discard everything that does not spark joy*” (Kondo, 2014). Joshua Fields Millburn and Ryan Nicodemus, through their publication, *Minimalism – Living a meaningful life*, along with the feature-length film, *Minimalism: A Documentary About the Important Things*, demonstrate why working long hours, wasteful spending habits and ephemeral indulgences inevitably lead to depression, and how removing the excess leads to existential contentment. All these authors present pseudo-religious minimalist approaches for determining priorities, which will eventually lead to a meaningful and satisfied state of being (Moon, 2019; Why Minimalistic Interiors Are Good For Your Wellbeing, 2018; Bunker, 2017; Minimalists, 2020).

However, it has been argued that such modern commercialization of the general Zen lifestyle in the forms of design, art and advertising has had a significant impact on its popularization, the represented ideas are rarely actually *about* them, as the relational and ethical aspects of the philosophy and practice of the *doh*, central to Zen arts, are often overlooked (Cox, 2003). While the term ‘Zen arts’ has no

Japanese equivalent, it usually refers to a group of activities that are often described as religio-aesthetic expressions of the Japanese culture (Cox, 2003; Saito, 2007; Suzuki D. T., 1959), founded on the *mu* (無/noneness)-based aesthetic “Way” (道/Japanese “Doh” or Chinese “Tao”) of being (Pilgrim, 1972; Cox, 2003). Zen arts practices may include 画道 *gadoh* (the Way of painting), 花道/華道 *kadoh* (*ikebana*, the Way of flowers), 書道 *shodoh* (the Way of calligraphy), 歌道 *kadoh* (e.g. *haiku/tanka*, the Way of poetry), 茶道 *chadoh/sadoh* (the Way of tea), 武道 *budoh* (the Way of martial arts) such as 剣道 *kendoh* (the Way of the sword) and 弓道 *kyudoh* (the Way of archery), 舞踏 *butoh* (Mu-based dance), 能 *noh* (Mu-based theatre), among many others (Cox, 2003; Basho, 1966; Crump, 2006; Fromm, Suzuki, & De Martino, Zen Buddhism and Psychoanalysis, 1974; Suzuki D. T., 1959; Pilgrim, 1972).

The most fundamental to all Zen arts is the emphasises on the use of *ma* (間). While the term *ma* is commonly used by the Japanese in everyday conversations, due to its very nature, the English equivalent have always eluded researchers in the field of Japanese studies. It has, nonetheless, been described as *a meaningfully empty space-time interval* (Ghaffari & Hekmat, 2019; Goda, 2010; Loots, 2010; Millar, 2001; Morioka, 2015), or ‘*the simultaneous awareness of form and non-form deriving from an intensification of perception*’ (Loots, 2010, p. 76). Depending on the mode of being and perception, absence and the lack of a presence can manifest and experienced as a phenomenon as tangible, powerful and meaningful:

‘Space is substance. Cezanne painted and modelled space. Giacometti sculpted by “taking the fat off space”. Mallarmé conceived poems with absences as well as words. Ralph Richardson asserted that acting lay in pauses ... Issac Stern describes music as “that little bit between each note - silences which give the form” (Fletcher, 2001, p. 370).

As maintained by Loots, *ma* ‘*eludes representation and refuses explication*’ (Loots, 2010, p. 74). In describing Hemingway’s use of space in his writing he says that the experience of *ma* is: ‘*not to understand what is missing [...] but rather “how” we can detect some dark gravity*’ (Loots, 2010, p. 76). Goda describes the use of the “pregnant pause” in kabuki theatre as, ‘*a property of the interpretative moment rather than the material presence of a thing*’, thus ‘*ma is difficult to pin down because it is an entirely relational concept and the word is only intelligible within our most subjective responses to temporal and spatial discontinuities*’ (Goda, 2010, p. 3). Similarly, in *noh* theatre, moments of no-action are considered not only ‘the most enjoyable’, but presents the innermost secret of the artform, honoring ‘not to act what is not necessary’ and indeed by recognizing that ‘excess is deficiency’ (Yusa, 1987; Wylie-Marques, 2003). *Noh* masters warn against over-dependence on words and stress the art of restraint and simplicity as the real secret lies in 無文 (*mumon* / the wordless), the balance between doing and not doing, between action and non-action (Raz, 1976). Such a “living pause”, with its non-active action, is a form of *ma*, where all intentionality is absorbed into the mutually shared moving silence to create the most meaningful language:

There are two silences. One when no word is spoken. The other when perhaps a torrent of language is being employed. The speech we hear is an indication of that which we don’t hear. It is a necessary avoidance, a violent, sly, anguished or mocking smokescreen. When true silence falls, we are still left with echo but are nearer nakedness. One way of looking at speech is to say that it is a constant stratagem to cover nakedness— Harold Pinter, 1962 (Pinter, 31 Dec 2008).

Furthermore, like Goda, psychiatrist Masayoshi Morioka applies the notion indesccribing the creative lively tension within the boundary zone between the *self* and the *Other* where narrative and meaning is constructed, deconstructed and re-constructed. It is an intersubjective shared reality, identified by the “/” of “place/place”, as *ma* is not a quantitative but is essentially by nature qualitative. Morioka introduces the idea of the “living *ma*” as a counselling technique, in which the therapist creates and maintains a meaningful pause for the subjectivities of both the therapist and the patient become integrated into a single space. He explores the therapeutic possibility of dialogical uncertainties and how a productive therapeutic zone of contact is created collaboratively between the therapist and the patient (Morioka, 2008; Morioka, 2015). Morioka also describes the space created within the internal world of the patient, between the *talking self* and the *talked/listening self* as another kind *ma*. The distance between the *problem-having self* and the *observing self* that emerges can be, once recognised, a productive space for the therapeutic process. He bases this on the notion of 離見の見/ *Riken-no-Ken*, a technique of working with the audience gaze in the moment of performance originally conceived by the noh theatre master and writer Motokiyo Zeami, as with all Zen pursuits, noh is the art of *ma*. The concept of *Riken-no-Ken* will be discussed further later in the chapter.

Morioka also introduces the concept of *utushi*, which in Japanese is ordinary characterised by three different characters:

1. 移 (transition of time, shift or change of space)
2. 写 (representation, image or copy of a real thing, trace and description exactly what it is)
3. 映 (mirroring, reflection, projection)

He employs the term to describe the dynamics that occur in the inter subjective relationships, including that between the internal subjects/selves, as the rationale for majority of psychical phenomena that are often observed in psychotherapeutic session, including identification and affective action, as well as dominance reversal. When *utsushi* occurs, the two subjects are no longer two separate beings, nor are they merely part of each other but an equal and united image within the mirror and the mutually constructed mirror itself. The acts of mutual *self*-construction shifts the position of the therapist into one of a participant, where the direction of the dialogue is cannot be prescribed as both participants respond dynamically in the living moment with an openness to uncertainty. He refers to this *ma*-led psychotherapeutic process as a dialogical construction of the *self*. The use of such paradigm necessarily requires an awareness and observation of the practitioner’s being and the recognition of any influence on the conducts (Aliyu et al., 2015). Traditionally, based on the positivist doctrine of the independent and objective observer, scientific approaches to research and practice assume that the clinician must maintain a reasonable distance for an effective treatment. However, unlike such propositional (or formal) ways of knowing, where knowledge is handled as external and static objects, oft valued by the Western intellectual tradition and informs much of its current institutional practices, the dialectical logic refers to the generative forms of knowing, where reality is viewed as relational in a continuous process of becoming. It is embodied and rooted in the lived experience, not abstract nor conceptual. This view is at the heart of many non-Western ways of knowing (McNiff & Whitehead, 2002).

Similarly, Merleau-Ponty criticises the Cartesian “operational” thinking of science and its subject-object dichotomy, which fails to recognise the internal complicity between the *self* and the world, arguing that perception and knowledge are generative processes (Hoel & Carusi, 2015). Heidegger’s interest also lies in the human experience of being, which he terms *Dasein*. In contrast to the Cartesian subject-object

dualism, *Dasein* denotes the idea that the *self* and the world belong in unity as a single entity, not external to the things whose identities are conceived as pre-given, denying the possibility of fully detached reflection (Gill, 2020). Modern understanding of hermeneutics had been developed specifically to describe such an approach to the study of human experience. Two associated German words, *erklären* and *verstehen*, are often employed to demonstrate the differences in the paradigms. *Erklären* means “to explain”; it is how knowledge is handled within the natural sciences. While *verstehen* means “to understand”, the way humanities researchers and practitioners employ the notion of knowledge, particularly in the East. The *verstehen* paradigm recognises the fact that the investigator cannot be detached from the object of investigation and that the observer’s presence in the situation significantly impacts the observation and practice (Aliyu et al., 2015).

Practitioners of qualitative methods are encouraged to develop a critical relationship with their work and those involved (e.g. patients, participants, co-workers) to respond accordingly rather than maintaining a distance for the sake of supposed objectivity and stability. Being mindful by being attuned to others’ thoughts and feelings through subtle cues and nonverbal communication have been shown to foster effective interaction, which is critical for the healthy functioning of any relationship (Burgoon et al., 2000; Pratscher et al., 2019). Furthermore, attending to another with mindfulness also involves paying close attention to one’s own self in response to the interaction both internally and externally (Pratscher et al., 2019). Tintu Thomas, who worked in the ICU during the Covid-19 pandemic, emphasises the importance of authenticity and honesty when treating a patient, where the staff is open and sincere about their own experience and encounters with their patients, thus cultivating a space of authentic relationship based on trust between the two parties, benefiting the wellbeing of the healthcare worker and the patient both physically and mentally (Thomas, 2021).

Such relational qualities can also highlight its generative potential. Kanter, discussing the mechanisms of theatrical improvisation, describes how actors change in response to audience reactions. In fact, audiences sometimes define what happens on stage and actors must think fast and adapt quickly (Sajnani, 2013). This is again akin to what in *noh* theatre is referred to as *Riken-no-Ken*, which will be discussed in Part 2 in relation to the philosophy of *no-self* (Yusa, 1987; Raz, 1976). Open and dynamic practice methods based on qualitative paradigms follow dynamic and responsive process with a generative approach that welcomes the surprises and the unexpected. Kanter compares the process to what designers and technologists refer to as “rapid-prototyping”, where the engineering procedure is based on responsively developing a series of possibilities in close communication with users without an end-product in mind (Sajnani, 2013). Such responsive approaches could also benefit clinical practice significantly if employed with care and finesse.

PART 2: THE INDIVIDUAL SELF

Wu claims, ‘*the notion of individual consciousness is no more than an abstraction in the face of the practical everydayness of [human] activities*’ (Wu, 2001, p. 99). Jules Shuzen Harris, a Zen therapist, also asserts that we create the idea of the soul to alleviate the anxiety caused by the truth of the impossibility of permanence. Yet in doing so, paradoxically, we create more anxiety, as the notion must be defended – over and over again – from the threats of its impossibility; Harris maintains that the most robust, yet the most malignant belief held by humans is thus the notion of an unchanging and independent self (Harris, 2019). It has been argued that psychology as an academic and clinical discipline is the root

of the development of the modern notion of the private, autonomous self, which was first introduced just over a century ago and has since been exploited by the corporate wellness industry, particularly the self-help market, through the idea that suffering lies in the individual being that can be soothed through intrapersonal practice (Carrette & King, 2005). Moreover, spirituality helps policymakers by sustaining efficient and docile workforce, and deflects the attention of the public from societal issues by laying the culpability on the individuals and their self-management rather than on any external political issues or even accepted submissively as an inevitable feature of modernity. As described by Foucault: *“It is a form of power which makes individuals subjects. There are two meanings of the word “subject”: subject to someone else by control and dependence; and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power which subjugates and makes subject to”*. Carrette and King argue that the Western neoliberal capitalism depends on the psychologised notion of the private self to function; furthermore, the governmental utilisation of the concept as a key ideology has been essential and as it has benefited the state politically and economically and hence reinforced further through national and local systems including healthcare, welfare and education (Carrette & King, 2005).

Zen’s tranquil aesthetics along with its meditative practice has been marketed as part of the well-being industry’s product and service to aid the healing and management of such a *private self*, reinforcing the image of Zen as a device for introspection. Similarly, the recent developments in the research into mindfulness predominantly focus the intrapersonal variables of practicing individuals. Consequently, the interpersonal dimensions of the Zen practice are much less known and require further studies. In contrast to the oft used solitary, quietist and introspective approach, many Zen masters suggest an alternate method of being, claiming that mindfulness and enlightenment is achieved through an authentically embodied process of interpersonal “becoming”. As claimed by Heidegger, *“there is no essential ‘I’ that is distinguishable from the ‘they’ [...] Everyone is the other, and no-one is himself”* (Reynolds, 2006, p. 30). The foundational thinking behind this notion of the self is that it is essentially a relative ontology that can manifest only in the “with-world” (Palmer, 2000). Humans have lived in collective alliances since the beginning of evolution, collaboratively hunting and gathering, providing security and sharing domestic tasks including child-rearing. We are said to spend most of our waking hours in the presence of others (Lange, 2008). Yet the majority of theories and practice in the social sciences still adopt a within-person approach, analysing and describing human behaviour in reference to individual-level disposition, processes and experiences.

A global survey by Kim and Jung has found a strong correlation between psychological distress and the socially isolating conditions triggered by the Covid-19 lockdown protocols. Moreover, their findings indicate that the role of national context is a key factor: the level of impact on mental health was found to be significantly higher in countries with higher number of covid-related death, weaker political and legal measures, and higher levels of globalisation and state capacity (Kim & Jung, 2020). Similarly, Rauschenberg et al. found an association between migrant and ethnic minority groups and mental health, while other objective indicators of social risk, such as employment status, marital status, educational level etc., showed no impact on the levels of Covid-19-related psychological distress (Rauschenberg, et al., 2021). Clearly, sociocultural factors should be considered a key variable when examining the associations between social isolation and mental health.

Cross-cultural approach is essential in the examination of the human condition and the conception of the self. The philosophy of *ubuntu* is often described using the Mbitian dictum, *‘I am because we are, since we are therefore I am’* (cf. the Zulu expression *‘umuntu ngumuntu ngabantu’*) (Mbiti, 1969; Kayange, 2020; Banda, 2019; Manyonganise, 2015). While it is translated broadly as ‘humanity’, ‘human-

ness' or 'humaneness', as a *philosophical* and a *religious* notion, it represents the proverbial (Southern) African conception of personhood, whereby a person is a person only through others (Bamford, 2007; Manyonganise, 2015; Mbiti, 1969; Tutu, 1999; Shutte, 2001; Gathago, 2008; Eze, 2010; Letseka, 2012; Etieyibo, 2017; Banda, 2019). *Ubuntu* subjectivity therefore opposes the notion of the independent and autonomous Cartesian subject as it articulates the essence of humans to be wholly relational; that is, human beings are embedded in the kinship of humanity. The essence of human identity is of belonging and being belonged to, which can be summarised as communality. Within ubuntuism, humanity is not simply a collection of individual beings; rather, it acknowledges the practical and conceptual interdependence of persons, taking relationships as fundamental to the ontology of being. As *ubuntu* conceptualises the *self* as a relational ontology, it also leads further to related claims, such as the proposition that being a person is a constant and dynamic process of becoming, contingent on the relation with others. Within ubuntuism, *self* is an activity deeply interconnected to the surrounding environment, both social and natural, and continuously created through and in dynamic interaction with contemporary conditions: '*this idealism suggests to us that humanity is not embedded in my person solely as an individual; my humanity is co-substantively bestowed upon the other and me. Humanity is a quality we owe to each other. We create each other and need to sustain this otherness creation*' (Eze, 2010, p. 191).

Roland's psychoanalytic work with Indians and Japanese revealed that their sense of *self* is much more merged with others in a "we-self" that differs profoundly from the separate, autonomous "I-self" so typical in the West. The theory of Gen offered by Tetsuro Watsuji's frames the notion of the human being as a space between subjects rather than the subject itself. The Japanese word for 'human being' is *ningen* (人間), which comprises two characters for 'person' (人/*Nin*), and the notion of 'space/in-between' (間/*Ma* or *Gen*). In "*Rinrigaku: Ethics in Japan*", Watsuji focuses on the character *Gen* in examining Japanese ethics, claiming that it embodies the Japanese comprehension of the ontology of the human as a relational being, which is strikingly different from major Western philosophies that emphasises the autonomy of the individual (Watsuji, 1996; Wu, 2001; Purser, 2019; King, 2005). Emphasising the sense of 'in-between-ness' of the character *Gen*, he proposes that *ningen* contains three meaning strands:

- As individual human beings
- As socially enmeshed human beings
- As the space (*Ma*) between beings in which the enmeshment occurs

A human is hence conceived as both/neither *one* and/nor *Other*, a *ma*/space of an active tension and a delicate ambiguity between being an individual body and a phenomenon enmeshed within the fabric of sociality, a contradictory ontological condition (Carter, 2001; Wu, 2001). Similarly, Alex Arteaga, maintains that such ontological schizophrenia is a fundamental human condition; the dynamic oscillation between the two modes of being is what sustains the essential variability that allows creativity and aliveness (Arteaga, 2011). Such ideas of existential disequilibrium and "degrees of freedom" result from the recognition of a multidimensional structure of human experience (Nagatomo, 1981). Zen training points to a state of mind that transcends the paradox of being rooted in the coherent sense of the ego, where existence lies beyond the notions of "within" and "between" individuals, where one moves beyond the consciousness of a distinction between *self* and *Other* (Suler, 1993):

'Taking ningen's condition of intersubjective betweenness as the point of departure, the laws of ethics are to be located in the double structure of human existence as both individual and totality. This structure

is essentially a movement of negation that unfolds through the dialectic between individual and totality, the movement of absolute negativity returning to itself in the form of the nonduality of self and other (Wu, 2001, p. 99).

Akin to the receptive mode of being in the interpersonal interactions described, Dōgen criticises the fantasy of the ego as an existential distraction: *‘acting on and witnessing myriad things with the burden of oneself is a “delusion.” Acting on and witnessing oneself in the advent of myriad things is enlightenment [...] Studying the Buddha Way is studying oneself. Studying oneself is forgetting oneself. Forgetting oneself is being enlightened by all things’* (Saito, 2007; Wylie-Marques, 2003).

The paradoxical expression, 無感の感/*Mukan-no-Kan*, is translated literally as ‘feeling of no-feeling’; it describes the ‘feeling beyond feelings’ that responds to the artless art manifested through actions beyond the conscious techniques. Entering such state of effortless artlessness, in which the artist conceals even from himself his own intent, is considered the highest form of Zen art (Yusa, 1987; Wylie-Marques, 2003). However, as emphasises by Zeami in the context of *noh*, it is undesirable for the actor to permit such technique to become obvious to the audience – or even to himself – as the moments of performative *ma* (no action) would at that point become an intension-led “action”. Zeami analogises this to the strings on a marionette (Raz, 1976; Yusa, 1987; Pilgrim, 1972). The corporal ontology of the self often manifests in the world as a “heaviness”, a solid weight that keep our feet on the ground to give us a sense of existential certainty and a sense of self. Through bodily techniques such as *butoh*, *zazen* and other forms of Zen arts, however, one can be lifted out of this heaviness to a state of ontological flux as a “lightness” (Nagatomo, 1981). This embodied transformative experience in the West is usually regarded as a process of self-discovery, where one may encounter the ‘hidden’ or ‘unknown’ regions of the *self*, and as a pathway towards self-identification, or, in Jung’s words, “individuation” (Sakuta, 2018). By contrast, within the Zen framework, the ontological transformation occurs in the space of self-obliteration, where the mind and body, the subject and object, the self and Other, are “unified” or “harmonised” into the original, embodied non-form being (Nagatomo, 1981). Due to the depth of the delusion of the ego, such existential oneness can be achieved through 修行 (*shugyoh* / spiritual training), a rigorous, disciplined practice of *no-self*, an absolute expunging of the ego-led being.

The concepts of *no-mind* and *no-self* are thus key in the philosophy and practice of Zen. It describes the phenomenon of the *self* becoming an empty vessel (Wylie-Marques, 2003; Pilgrim, 1972; Sakuta, 2018). Zen practice describes the process of *satori*, the embodied realisation of nothingness and a clear apprehension of the oneness of the subject and object, or the *self* and *Ta/Other*. Such praxis involves a radical change in a person’s viewpoint, affecting both the intellectual/cognitive and existential/emotive dimensions of one’s mode of being. *Riken-no-Ken*, mentioned earlier in the chapter, is nothing but the aesthetic *satori*-mind exercised in the theatrical art, applied both to performance and appreciation of performance (Yusa, 1987; Nagatomo, 1981; Raz, 1976). Zeami developed the *Riken-no-Ken* concept to describe the technique and phenomenon of becoming a *no-self* on stage which allows the body to become an aesthetic *ma*, to be moved by the conditions created by the space, the *no-self* and the audience in the moment of existential unification. Zeami’s notion of the *no-self* was rooted in the Zen understanding of freedom as the absolute humility and compassion; the actor is in constant danger of falling into the trap of egoistic delusion if the focus of the performance is on anything other than the audience’s response. This responsive attention in turn maintains him in the condition of an aesthetic disequilibrium, a living tension between existential affliction and liberation (Wylie-Marques, 2003). Vangelina claims, without

compassion, the act of being is unproductive as we remain in chains, controlled by our ego, where futility is a deep well from which we may never return (Vangeline, 2020).

The *self* is a complex and dynamic constellation of properties and relational forces (Suler, 1993). While meditation is often misunderstood as merely an intrapersonal, solitary practice, involving focusing on one's internal conditions to cultivate mindfulness (Pratscher et al., 2018; Pratscher et al., 2019), the aim of Zen practice is to incorporate such attentive intersubjectivity into the everyday actions. Watsuji believes that the concept and experience of the human, *ningen*, represents simultaneously the public (世間 *se-ken*) as a network and the context, as well as the private beings living within it (Watsuji, 1996). He claims that the character 世 (*se/yo*) signifies "generation", thereby giving the term a civic and historical dimension, while 間 *Ken*, which again is the character for *Gen* and *ma* (between), represents the active and subjective interconnection of acts (Wu, 2001). The human ontology is thus implicated in the living unity of sociality and individuality the concept of the *self* can only manifest in the intersubjective in-between-ness and cannot be defined without the wider space of the Other (Maynard, 2002; Fogel, 2015; Wu, 2001; Watsuji, 1996).

What characterizes a person as human is that one is always together with other humans. In Japanese history, the only physical escape from the community was through withdrawal into the mountains, and in that case a person was referred to as sen-nin (仙人) "hermit", a world of otherworldly nuance. There never has been a Japanese word for "privacy" (Nitschke, 1988).

Watsuji contrasts the Japanese term 存在 *sonzai* (existence) against its European counterparts by deconstructing the two kanji characters 存 (*son*), which denotes preservation, and 在 (*zai*) which represents the one's *staying-in-place* against departure (Watsuji, 1996). Together, unlike the English *is* or the German *sein*, *sonzai* hence signifies 'the self-sustenance of the self as between-ness' (Wu, 2001, p. 99). For Zen and all Buddhist practice, compassion through the dissipation of the ego, which allows a space for oneself to become the "other," is the starting point toward, or the end point that manifests what is conceived as, enlightenment. Swami Ramakrishnananda Puri defines compassion as "the willingness to enter the chaos of others" (Vangeline, 2020). Our moral life includes understanding, appreciating, and respecting the other's reality, the capacity to experience and appreciate things on their own terms. As described by Yi-Fu Tuan, 'one kind of definition of a good person, or a moral person, is that that person does not impose his or her fantasy on another'; instead, such a person is 'willing to acknowledge the reality of other individuals, or even of the tree or the rock' and "to stand and listen' (Saito, 2007).

PART 3: STILLNESS AND INTROSPECTION

According to Morioka, within Zeami's *Riken-no-Ken* framework, the therapist becomes the performer as much as the patient; the psychotherapeutically productive, "living" *ma* can only be created when the spontaneous living responsiveness emerges, mutually between the two parties (Morioka, 2015). Furthermore, just as Zeami's proclamation, '*noh is an art that depends on the audience*' describes, the process of living-*ma* creation starts with the audience/patient; it is only when the "ear of the heart" from both sides are opened to the silence that it becomes alive as an intersubjective space where the collaborative story is produced through a mutual dialogue of conception (Wylie-Marques, 2003; Pilgrim, 1972; Raz, 1976). An effective psychotherapeutic procedure depends on the patient and the therapist's willingness

to let such uncertainty and spontaneity take place, navigating it through the expertise of what Zeami refers to as the trained intuition of *Riken-no-Ken* and *Mukan-no-Kan* (Yusa, 1987; Pilgrim, 1972; Wylie-Marques, 2003; Raz, 1976; Nagatomo, 1981; Morioka, 2015).

A noh master who knows the need to adapt to the moment would not begin the performance either at a fixed time or arbitrarily, but rather in response to the atmosphere and expectations of the audience. He notes that an actor with an experienced sense of the audience will start his performance at the only moment suitable for the beginning, not a second too early or too late. It is critical to be buoyant – never to ignore the audience, never to cling to the prescribed arrangement or one's own technique, but equally never to submissively yield to the mood and caprices – the result is a combination of the prepared and the improvised, an art which springs from the tension between a preconceived work and one which is adapted to the circumstances of the day (Raz, 1976; Wylie-Marques, 2003). The performer must be free even from his own experience and knowledge returning back almost to the no-mind of a beginner which, Zeami warns, can only be achieved after years of meticulous training. Just as the notion of responsivity-as-mastery is valued in martial arts, all *mu*-based (i.e. Zen) arts consider responsivity to be the most fundamental in all action (Sakuta, 2018; Nagatomo, 1981; Pilgrim, 1972). The integration of the no-selves in the creative space between the subjects can facilitate dialectic aesthetic of the dynamic seesaw, an intimate and authentic place of action and reaction, reaction and re-reaction, a vibration and reverberation (Raz, 1976), what Zeami called the secret game (Yusa, 1987).

The concept of aesthetics in the West is typically associated with discussions of beauty. Within the context of the Zen arts, however, the notion is of one's state of being. The terms *aesthetic* and *anaesthetic* rooted in the same Greek word *αἰσθητικός/aisthetikos* and describes a form of cognition and corporal experience, or the lack thereof, in response to the sensory taste, touch, hearing, seeing and smell (Behrens, 2002). It is an essential form of knowing that evolved in humans before the development of language as a basic survival instinct based on the sense of fear and pleasure (Conrad & Beck, 2015); as stated by Eagleton: '*aesthetics is born as a discourse of the body*' (Cox, 2003, p. 74). Furthermore, within the traditional philosophy practice of Japan, religious and aesthetic values considered to be one and the same thing as creativity and craftsmanship are viewed to represent intersubjective consideration and responsivity. Art is thus linked closely to morality, affirming the importance of others' experiences, reflecting the *Ta* (他/Other)-regarding attitude, such as courtesy, responsiveness, humility, patience and care (Wylie-Marques, 2003; Nagatomo, 1981; Saito, 2007; Ghaffari & Hekmat, 2019; Pilgrim, 1972). During the sadoh tea ceremonies, for instance, every detail is guided by considering and imagining the experience of the guest. The Tea Master Sen no Rikyu's (1521–1591) frequently use the term *hataraki* in his teachings compiled in his writings. The term's literal translation is "function", but Rikyu uses it to describe how the host's consideration for the guest is expressed through every minute gesture and decision, from the choice of ornaments displayed in the room and utensils used during the ceremony to the body movement to the weight of silence. Thoughtfulness is considered the highest form of art, as morality is the foundation of aestheticism in Zen, and responsiveness and authenticity become the aesthetic means and 'technique' in such a context (Saito, 2007).

Such a conception of aesthetics and creativity goes far beyond the contemporary use of the notion as one related to beauty. Conrad and Beck, discussing the paradigm of relational aesthetics, states that with its relational quality, the core method and goal of such artform is honouring the potential of intersubjectivity and the collective meaning-making to transform the world (Conrad & Beck, 2015). '*Be-ing*' is a verb. As Zen masters emphasise time and again, Zen is need not be more than the ordinary, lived life of the everyday, though '*people seek it far away*' (Suzuki, 1959; Fromm et al., 1974; Suzuki, 1991). Too often

Zen is erroneously equated with asceticism and detached apathy, misconceived as a practice of sterile, self-absorbed contemplation. However, on the contrary, Zen emphasises ‘doing’ over ‘thinking’ (Sakuta, 2018; Wylie-Marques, 2003). Zeami, for one, was not a man of dreamy, abstract philosophy; rather than through intellectualized or abstract approach, his conception of aesthetic and existential freedom was one which is achieved only through a lived, “practical epochce” (Nagatomo, 1981; Raz, 1976). Hui-neng, the father of Chinese Zen, expresses a clear discontent against the oft adopted internalist, quietist and ascetic meditational approach to enlightenment:

When you sit quietly with an empties mind, this is falling into a blank emptiness [...] There are some people with the confused notion that the greatest achievement is to sit quietly with an emptied mind, where not a thought is allowed to be conceived [...] When you cherish the notion of purity and cling to it, you turn purity into falsehood...Purity has neither form nor shape, and when you claim an achievement by establishing a form to be known as purity, you obstruct your own self-nature, you are purity-bound (Suzuki, 1991, pp. 26-27).

The most attractive aspect of Zen is said to be the idea of the ‘direct experience’; it is unique within Eastern Buddhism in its simplicity and pragmatic approach to everyday life (Snodgrass, 2003). It has always been a philosophy that appealed to men of action: “*Not only emperors, statesmen and generals came to see Zen masters, but also men of letters, artists, singers, actors, wrestlers, merchants, masters of tea ceremony, and swordsmen.*” (Ibid. p. 268) Zen philosophy thus eschews the use of language. Shintoh, the philosophy and practice of Japanese religion, is unique in not having a specific textual scripture; similarly, Zen rejects idea of having representational guides, including any form of holy books that distracts one away from the pure and direct experience (Inouye, 2008; Ghaffari & Hekmat, 2019; Cox, 2003). Goda dedicates her thesis on the notion of the intersubjective *Ma*, ‘*to the ineffable qualities that lie beyond the scope of linguistic expression*’ (Goda, 2010, p. 22). Language simultaneously expands as well as limits the conception of an experience by framing what it expresses, distancing the immediacy and corporeality of the lifeworld:

Do you know that even when you look at a tree and say, ‘That is an oak tree’, or ‘that is a banyan tree’, the naming of the tree, which is botanical knowledge, has so conditioned your mind that the word comes between you and actually seeing the tree? – Jiddu Krishnamurti (Krishnamurti, 1969, p. 25)

Although there have been some shifts in the philosophy of science towards a broader conception of knowledge, the Western culture is still very much implicitly biased against qualitative approaches, which has a significant impact on “conventional” healthcare practices. Intersubjective paradigms, such as Masaoka’s therapeutic techniques of “living *ma*”, are not viewed as quantifiable scientific methods of medicine, otherised as an Eastern model, falling outside of the standardised clinical practice. However, without a holistic and humanistic approach to the enhancement of patient wellbeing, the fundamental psychotherapeutic goal would not be achieved; it must take the form of a radical “transformation” rather than a mere “reform” (Fromm et al., 1974).

Covid-19 has led to global emergencies with a devastating impact not only on physical conditions of the world population but on the psychological wellbeing, resulting in a “mental health pandemic” (Zhang, et al., 2020; Sanderson, et al., 2020; Rauschenberg, et al., 2021). Research shows that crises often leads to a sense of community and consequently prosocial behaviour; moreover, it has been shown that helping

others can promote wellbeing by providing meaning (Zaki, 2021; Poulin et al., 2013; Schwartz, 2003; Crandall, 1978) as well as enhancing physical health (Zerski et al., 1986). The manifestation of *Gen* and its mechanism of genuine love and care is absolutely dependent on trust and the embodied authenticity of relationships (Watsuji, 1996). More importantly, true existential and aesthetic freedom is achieved only through praxis rather than a theoretical, intellectual or introspective contemplation (Nagatomo, 1981). *Gen*-based mindfulness is not an abstract notion nor a passive act of contemplation; rather, it is a proactive and dynamically responsive way of being – as Thich Nhat Hanh describes the applied practice of mindfulness: ‘*When bombs begin to fall on people, you cannot stay in the meditation hall [...] you have to learn how to help a wounded child while still practicing mindful breathing*’ (Purser, 2019, p. 191).

CONCLUSION

The COVID-19 pandemic, and the accompanying lockdown measures implemented, has had a dramatic impact on global mental health. There is accumulating cross-sectional and longitudinal evidence of the negative consequences on various health issues, including depression, anxiety, as well as other related risk factors such as misuse of drugs (Rauschenberg, et al., 2021 ; Zhang, et al., 2020; Sanderson, et al., 2020). Moreover, clinical staff experienced a great deal of physical and mental health issues, such as fatigue, sleep disorders and loneliness caused by anxiety, loneliness, frustration and anger. Having to tell patients and their families bad news is one of the difficult yet inevitable part of the medical profession. Their feelings of powerlessness and distress need to be acknowledged as much as those of the patients if we are to consider how the situation could be improved, not just during the pandemic but in the aftermath. The healthcare staff need as much support in maintaining their physical and mental health if they are to be effective in caring for the patients. Thomas argues that care workers should not feel the need to mask their authentic experience and feelings of worry and frustration with altruism and loving kindness if they are to maintain their own emotional equilibrium and mental wellbeing. They must be provided with a space, understanding and training to be able to navigate through such emotions (Thomas, 2021; Pratscher et al., 2018; Galendar et al., 2020).

FUTURE RESEARCH DIRECTIONS

The chapter has explored the interpersonal dimensions of mindfulness practice, indicating implications for the application of such paradigms. Future research should consider whether current mindfulness interventions and training that have traditionally been based on internality rather than intersubjectivity is sufficient or whether incorporating components specifically focused on the *no-self* interpersonal relationships is necessary for improving its clinical application (Pratscher et al., 2018). The cultural differences in how one perceive and conceive oneself, and thus in relation to others around, prove to be a critical factor in determining the efficacy of various clinical techniques including mindfulness practice. Identification of a suitable treatment for those with pandemic-related psychological issues is now critical to prevent the exacerbation of the mental health pandemic that could last long beyond the Covid-19 crisis if not dealt with appropriately.

The Covid-19 pandemic has created an urgent and global demand for safe and accessible systems of help to improve psychological wellbeing during the times of lockdown isolation. Technologies such

as mobile apps and social media have been found to play vital roles in maintaining good mental health during the lockdown; there has been evidence to show that digital mindfulness interventions can improve mental health by alleviating symptoms such as depression and anxiety (Farris, et al., 2021; Rauschenberg, et al., 2021). Virtual intervention strategies such as online mindfulness apps and workshops are increasingly accessible and beneficial forms of support that may help to mitigate psychological distress during times of isolation. Social media platforms and conferencing software, for example, allow individuals to interact with others without the need for face-to-face contact. Such online support systems could moderate the consequences of the pandemic on mental health. Future research into the impact of social isolation on mental health may benefit from analysing the use of such methods of interventions, as well as the impact of sociocultural factors on the efficacy of such forms of care.

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KEY TERMS AND DEFINITIONS

Ma/Gen (間): The awareness of an intersubjective time/space interval.

Mu (無): The nothing/none-ness.

Riken-No-Ken (離見の見): A technique of creating an embodied Ma, first introduced by the noh theatre master Motokiyo Zeami.

Ta (他): The Other.

Zen (禅): The religio-aesthetic practice of the Japanese Buddhist ‘Way’.

Chapter 17

Yoga for Attaining the State of Mindfulness

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ABSTRACT

Mental peace, inner peace, and spiritual enlightenment are often emphasized in ancient scriptures for the holistic development of man. Every culture and religion of the world teaches, preaches, and practices these virtues for a vertical development of love and restating the brotherhood in society. Yoga and Mindfulness are two prominent and popular practices to achieve the good values and virtues. These two practices are dissected by philosophers, researchers, and physicians to the threshold only to conclude that the effects are inevitably gainful. This chapter brings together yoga and mindfulness on same page to show their complementary relationship. Here are mentioned few challenges and issues that both the practices have to face often.

INTRODUCTION

Since ages, almost all ancient scriptures emphasize the acquisition of mental peace, inner peace as life goals and suggest various paths for its attainment. Irrespective of the origin of the oldest and common religions of the world, gurus (central figure) portrayed their struggling, fighting, preaching and practicing peace. Hinduism, Islam, Christianity, Sikhism, Jainism, Zoroastrianism or Mazdyasna and Buddhism emphasizes on peace and non-violence. If one prepares a Venn diagram using the values preached in each religion, the common value shared by all religions will be 'peace'. To attain peace, meditation is commonly practiced and suggested. Of these religions, Hinduism and Buddhism have different types of meditation- Yoga and mindfulness respectively are the most common meditational practices in current times.

Found about 2600 years ago in Buddhist philosophy, mindfulness is now a popular meditational practice in neurophysiology and psychology literature. Kabat-Zinn (1994) defined it as non-judgemental attention to the present moment; and the main techniques to practice the core of mindfulness are meditation, mental body scan, and breathe watching and mindfulness yoga (Kabat-Zinn 2003). According to

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Tang and Posner (2013) different mindfulness skills converge to a common goal i.e. being in the state of awareness and placidity of the phenomenological field. This meditational practice requires a conscious acceptance by one of the present conditions or situation, both behavioural and mental. Numerous research in mindfulness provides pieces of evidence for its effectiveness in emotion regulation (Chambers, Gullone, & Allen 2009; Geschwind et al., 2011; Mathew et al., 2010; Nyklícek & Kuijpers, 2008; Zhang et al., 2019), enhancing happiness and satisfaction (Davidson et al., 2003; Ivanovski & Malhi, 2007; Shapiro, Schwartz, & Bonner, 1998), reduce anxiety, depression and experience equanimity (Baer et al., 2006), reduce addiction (Bowen et al., 2006) and increase cognitive abilities (Brefczynski-Lewis et al., 2007; Jha, Krompinger, & Baime, 2007; Low et al., 2008; McCracken & Yang, 2008; Ortner, Kilner, & Zelazo, 2007; Tang et al., 2007). According to Schoenberg and Barendregt (2016) mindfulness involves a fine-tuning of attention to dismantle mental processes into basic constituents and observe this dismantling from a distant ego. They have used Vipassana as a synonym for Mindfulness (Schoenberg & Barendregt, 2016). Mindfulness or Vipassana meditation involves observing the abdominal breathing movement to bring attention focused on abdominal movements. The practitioners are required to meditate for 13-14 hours a day with stipulated time for other activities such as mealtime etc. (Schoenberg & Barendregt, 2016). Mindfulness meditation manifests discipline and concentration in lifestyle and actions. Insight emerges once the discipline and concentration are developed in behavioural, cognitive and emotional levels of individuals. Schoenberg & Barendregt (2016) structured the advancing of mindfulness meditation (according to discipline, concentration and insight) into levels for better functionality. The first, second and third levels are discipline levels that require a restriction of physical output, mental output, avoidance of any distractions through persistence (Schoenberg & Barendregt, 2016). As a result, this process developed concentration and mindful observation of actions and thoughts, thus ensues insight i.e. awareness of what, how and why of happenings. The above study claims a heightened resolution of observation of internal or external stimulus as the emergence of equanimity and established an empirical baseline with neurophysiologic markers. Hölzel et al. (2011) proposed four effective compositions of mindfulness namely, attention regulation on the chosen object, body awareness, regulation of emotional reactions and changing perception about self. They found these four components similar to “*SatipatthanaSutta*” in the Theravada Buddhist scriptures (Hölzel et al., 2011). Davis and Hayes (2012) review several articles on mindfulness and concluded various benefits for both people in health and ill-health, and psychologists.

To be consistent with the above studies and Ancient Buddhist literature, ‘mindfulness’ can be referred as a psychological state of awareness that one attains with the practice of promoting awareness about self and environment. It is non-judgemental momentary awareness of individual experiences. Since it is a state of mind, certain practices can cultivate it. Walsh and Shapiro (2006) mentioned that mindfulness can be cultivated by several disciplines, including yoga, tai chi and qigong but most of the literature focus on mindfulness meditation. It is noteworthy that that a mindful state is a lifestyle and not limited to remedy as suggested by some above-mentioned studies. Consistent with the suggestions by Walsh and Shapiro, one can attain mindfulness as a lifestyle via yoga. It prevents the individual from the physical and psychological pains; cures one from the same. A common idea of yoga is limited to *Asana* or physical pose (Gulati, 2018; Issacs, 2008; Martin 2018), but the literature is ambiguous in explaining the relationship of various steps of former and latter practice.

Mindfulness leads to focused awareness and connecting with reality, the surroundings. It helps to be detailed about people around us, have a sharp observation of behaviour and be more attentive as a person. It requires an unbiased presence of mind to attend the present moment (Bishop et. al., 2004).

Yoga for Attaining the State of Mindfulness

Regular practice weaves a thread of clarity throughout the fabric of our existence. It allows the fullest and authentic expressions of self. It's like connecting the outer self with the inner self. The steps for mindfulness are rather simple and involve absorption in the present moment by silencing the thoughts. Step by step one builds a mindfulness state of awareness. It is a skill that can be practiced every moment of the day, every day just like meditation. Use the following exercise for mindfulness meditation-

“Imagine yourself sitting under a mango tree. You see a bunch of mangoes perched in the tree and birds reaching for them with their beaks for the sweetness. You can see the brightly coloured feathers of the birds and hear their chirping as they assemble to taste the fruits. Simultaneously you move your hands on the groups and feel the grass under you, slightly dry, cool and strangely comforting. You feel a sense of freedom from cultural boundaries, past thoughts and plans. As you see lift your eyes and gaze farther, you see a vast landscape that requires no labels. The skin over your arms legs and face feels the sensation of terrestrial elements- the sunlight and breeze. You hear a melodic swirl of leaves over you. Without containing yourself, you expand your arms, fill the breeze in your chest and dive into the moment of inner peace.” The moment of engagement in experiencing every minute detail around you is mindfulness. It is a process of momentary engagement of all five senses- sound, sight, smell, touch and taste. Mindfulness is focusing and refocusing from moment to moment to expand awareness and discover inner peace. Say, if walking, focus on every footstep; if drinking water, focus on every drop you gulp down the throat.

An ancient Indian philosophy, older than the Buddhist concept of mindfulness, holds a niche in developing mindfulness - Yoga. It is one of the *shatdarshans* also known as six schools of Indian philosophy, propounded by Maharshi Patanjali. In English language the nearest possible word to ‘yoga’ is ‘union’, indicating a connection between body and mind, outer and inner self, and soul and supreme power. The development of this union or connection is a deliberate and conscious effort of a *saadhak* or a yogi (a person who engages himself in yoga), to attain spiritual enlightenment by systematically following the steps of yoga. The spiritual enlightenment is the ultimate mindfulness state for any human being to attain. Yoga is a method to control the fluctuation of mind, *Chittavritti nirodham*. Yoga is a systematic way of living and comprehensive practice to bring self-discipline via social conduct, strengthening of the body, control breathing and withdrawing from giving in to desires. Unlike the modern understanding of yoga, which is limited to *Asanas* or physical activity, the traditional yoga comprises of eight steps - *Yama*, *Niyama*, *Asana*, *Pranayam*, *Pratyahara*, *Dhyana*, *Dharana*, and *Samadhi*. Each step when practiced scrupulously helps the *saadhak* attain self-awareness, focused mind and contentment. In other words, the *saadhak* attains mindfulness of surroundings, body, mind and feelings. As mentioned above, to achieve mindfulness, one has to absorb in the present moment and master this skill throughout the regular practice. Practicing the steps of yoga offers a deep insight into the mind and can act as a vehicle to mindfulness. Each step of yoga helps in evolving from awareness of surrounding to body, feelings and mind- a complete state of mindfulness.

The High Spiritual Goal is Mindfulness

The Yoga philosophy as outlined by Patanjali is comprised of *Yamas* (ethical disciplines), *niyamaas* (individual observances), *Asana* (posture), *Pranayama* (breath control), *Pratyahara* (withdrawal of senses), *Dharana* (concentration), *Dhyana* (meditation), and *Samadhi* (self-realization or enlightenment) (Bonura, 2011). These eight limbs are comprised of ethical principles for living a meaningful and purposeful life;

serving as a prescription for moral and ethical conduct and self-discipline, they direct attention towards one's health while acknowledging the spiritual aspects of one's nature (Woodyard, 2011).

The fundamental goal of both yoga and mindfulness is awareness of experiences and emotions. How shall one practice the yogic steps in contemporary times to attain mindfulness? The following paragraphs include details about each step and its manifestation in contemporary times.

Yama and Mindfulness

The first step of Patanjali's yoga, also known as the first limb of ashtanga yoga is *Yama*. The word '*Yama*' is derived from Patanjali's yoga sutra is different from the mythological icon '*Yama raja*' who is dutiful and God of death. *Yama* infers to the ability of self-control and restrains from basic instincts and desires. One can attain this ability by speaking truth always (*Satya*), not hurting any other living or non-living being (*ahimsa*), not stealing from others (*asteya*), not obtaining possessions of others (*aparigraha*) and following the path of true knowledge without being disturbed by desires or lust (*brahmacharya*). As one practice *Yama*, a gradual change in behaviour can be observed. Speaking of truth, irrespective of the situation and consequences makes a person free from the bondage of weaving stories of falsehood. Once a person adopts the behaviour of speaking truth, he develops it as a habit. Physiologically, telling truth is healthy for the human brain (Spence & Kaylor-Hughes, 2008; Polage, 2017). It prevents one from physiological and psychological dissonance.

A truthful person is emotionally more stable than a dishonest person. He stays alert and mindful of his actions (self) and the environment. Stating truth is opposite to harm; it might cause some discomfort or emotional pain but for the long run in life, truth makes a man more sustainable. On the other hand, lying or falsehood is hurtful and harmful, either with or without intentions. The commonly known forms of harms or hurts include physical expressions such as hitting, spitting, kicking, etc. As a practitioner of yoga and psychology, the author has observed two more forms of expressions of violence- verbal and cognitive. In verbal expression, an individual makes use of hurtful words or statements towards another person. Such an action is a result of self frustration and inability to resolve it. The cognitive expression of harms or hurts is more subtle compared to the previous two forms because it exists inside the mind of an individual, such as when an individual has intentions to hurt or harm another person by scheming and forming negative ideas against others. This type of harm is most dangerous for self as it disturbs the mental capacities and sometimes causes physical ailments. These harms are nothing but violence directed towards others and self. They bring emotional tiredness and fatigue of body and mind. Hence by practicing honest speech (*Satya*) one can easily become non-harmful towards any living being. *Satya* or truth prevents individuals from plotting any form of violence, it nurtures positive thoughts aimed towards the welfare of others. As a result, it initiates the practice ahimsa or non-violence. *Ahimsa* should be manifested in all three forms as mentioned previously i.e. physical, verbal and cognitive. As an individual acquires the ability to be truthful and non-violent, he understands the importance of not stealing anything from others (*asteya*) and not getting hold of possessions of others (*aparigraha*). Stealing of material, time and ideas from other individuals and acquiring things from others with/out is prohibited in *Yama*, because these actions bring pain and disregard for self and others. Once an individual develops the abilities of *Satya*, *Ahimsa*, *asteya*, and *aparigraha*, he can join the path of *brahmacharya*. It is the path to acquire true knowledge and overcome materialistic desires. True knowledge, as suggested in various ancient scriptures make a person aware of his self and environment. The practice of *Yama*, make a person pious within. He becomes observant and sensitive to himself and others. This is the beginning of mindfulness.

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Mindfulness is a step by step process where the individual pays conscious attention to everything and everyone in his environment. The practice of *Yama* makes an individual restrain or control various actions and desires, thus narrow down his attention to minute details of his environment. *Yama* makes a person more conscious and aware. Thus, the ability of *Yama* can be related to the beginning of the state of mindfulness as it brings inner peace, happiness increases self-control and makes a person alert and aware.

The next step of *niyama* unlike *Yama* is about individual vigilance. *Yama* or self-control prevents mindless actions and *niyama* helps in planting good actions. Mindfulness is not a day task but a practice of every day every moment. Hence the success of *Yama* and *niyama* infers the success of forthcoming six steps of yoga and mindfulness.

Niyama and Mindfulness

After acquiring self-control, *niyama* directs an individual towards disciplining own self within and environment around own self. *Niyama* includes five practices namely *saucha*, *Santosh*, *tapas*, *swadhyaya* and *Ishwarpranidhan*. *Saucha* or cleanliness is a clean body, mind and environment. Brushing, bathing and elimination are considered cleaning activities that every individual agrees too. *Santosh* is to be content with whatever one owns or earns such as the satisfaction of job, family, materialistic ownership, etc. But the practice of *saucha* and *Santosh* are more than these physical cleansing. They emphasize the de-cluttering daily chores list, place of work, cupboards, study table, kitchen wares, etc and make use of whatever one has in their lives. It means seeing the world around us as sacred and incompleteness. In other words, one needs to learn to change the perspective of focusing on the empty portion of the glass instead of the full portion. Our actions to remove clutters shall not be limited to physical rather advanced to psychological and spiritual. In routine, one ends to clutter up the day with unnecessary activities (such as serving addictions, gossiping, etc), crave for needs that won't be satisfied (such as shallow interactions for attention-seeking, etc.) and collect junk material (such as obsessing over clothes, accessories or any unnecessary materials). Once an individual learns to cleanse the clutter, he gains a sense of gratification and satisfaction for everything in his life. He learns to enjoy whatever he has in his life be it food, place of living, etc. Both *saucha* and *Santosh* takes the individual closer to the path of spiritual development via austerity or *tapas* and regular self-analysis and gathering knowledge. Through hardship comes excellence. The true shape of any gold ornament requires firing up and repeated beating of the metal to its threshold. The end is worth the means. Similarly, an individual who acquires adhere to the austerity of gaining true knowledge with a clean mind and body frees himself from the pain of delusions or ignorance. His heart and mind become debonair and he surrenders to the almighty. *Ishwarpranidhan* or to surrender is submitting to the almighty our joy, sorrow, anger, fear, success, failure, ego, etc. Individuals must think and believe in the almighty as the soul responsible for the progression of humankind. As a practitioner, the author has noticed that the practice of *Ishwarpranidhan* develops hope like an anchor for something to hold on to in times of prosperity and difficulty. On the other hand, people who seem to fail in letting go, suffer from psychological pains without realizing. As a psychologist, the author claims that to surrender is physically and psychologically healthy because it is a practice to let go of worries, doubts and concerns. They bound an individual and devoid of joy. The practice of *Yama* and *niyama* leads to the exclusion of faulty behaviour and thoughts, and plantation of healthy actions and beliefs respectively. The focus is on the intentions i.e. to maintain sanctity and purity.

Mindfulness via *Yama* nurtures self-control and awareness followed by the consecration of actions and intentions via *niyama*. As the individual practices *niyama*, he strengthens his awareness of surroundings

outside and, purity and happiness within himself. Cleansing self on inside and outside makes a person mindful of his body and mind. Being content of current job, family, friends, house, accessories make an individual aware of his blessings. One who feels content within stays austere (*tapas*) of his behaviour and thoughts. He comes closer to himself, acquires knowledge for the sake of self-growth and learns to let go of emotional baggage by surrendering. *Yama* and *niyama* lift an individual's mindfulness. They help filter out unhealthy feelings and thoughts so that mental energy is pure and helpful in evolution (psychological and spiritual). As a result the individual becomes focused, mindful and aware of his intentions, actions and reactions and thus is capable of regulating them better than ever.

Adsorption of these steps of yoga purifies human actions, habits and intentions for the next step, i.e. strengthening of body and regulation of breath.

Asana, Pranayama, and Mindfulness

Strengthening of body through *Asanas* has a niche in Patanjali's *syogasutra*. Different meditative postures strengthen and bring flexibility in all the muscles of the body. *Asana* is about placing the body in specific positions, regulating breathing patterns and channelizing inner self. The *Asana* is conducted for the flexibility of small and large muscles of the body. When the body is placed in a specific position, it comes to alignment with breath (*prana*) and mind. Once the body and *prana* are regularized, the mind progresses towards the experience of *ekagrata* or focused consciousness. With body strengthened, the control over breaths or *prana* becomes the next goal. *Prana* is the source of energy to body and mind. Fresh air or healthy *prana* can be easily associated with a lush green garden, whereas traffic and concrete jungle lead to inhaling not so fresh air. Although breathing is an involuntary process, yogis have been found attained absolute control over it. Any individual who regulates his breathe can tame his mind. *Asana* and *Pranayam* are dedication and absorption of self in every moment and every segment of the environment.

As an individual masters the skill to control his body and breathe, he gains control over his senses, desires and thoughts too. Adapting *Yama*, *niyama* and *Asana* brings changes in habits, thinking and lifestyle. They make an individual scan his body and mind, each action he makes and each thought he thinks. Hence, as a yoga practitioner the author recommends that these steps lead to a focused mind and extinction of faulty habits or behavioral patterns. They stimulate an experience of positive affect and cognition. Similar changes and experiences are reported by Garland et al. (2015a) about mindfulness. According to them, mindfulness focuses on the extinction of maladaptive habits and negative mental state (Garland et al., 2015a). Mindfulness meditation also stimulates an upward spiral of positive affect and cognition, the key elements of well-being (Garland et al., 2015b). Salanova, Llorens and Schaufeli (2011) found a positive relationship between mindfulness and work engagement, characterizing the state of mind as positive and fulfilling. The mindfulness meditation requires breath watching and being alert about physical and psychological movements. The study conducted by Schoenberg and Barendregt (2016) has divided the discipline stage into three levels beginning with restricting sensory input from external and internal sources, controlling physical movements and focusing the attention on breathing patterns. In the author's opinion, yogic steps prepare an individual for the successful culmination of this stage gradually. The four stages of yoga as mentioned above are the progression of individuals from his outer world to the inner world. The act of self-control, not hurting others, purposefully planting a good thought and action, breathing calmly and regulated manner are certain experiences that any practitioner of yoga experiences. Once the mind of the yoga practitioner is set to follow the *Yama* and *niyama* and his body is accustomed to the physical strength attained with *Asanas*, and *Pranayama* becomes easier

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compared to mindfulness meditation. Because regulating breathing requires a certain level of physical and psychological alignment (disciplining) and initial steps of yoga make them possible. With a successful practice and control over breathing patterns, the experience of the physical world is magnified with each step and sub-step of yoga. This way the chances of failure in yoga can be brought down. The inner self de-integration and its re-integration would be less scary (Schoenberg & Barendregt, 2016).

Our physical world offers pleasures and pain in various forms and its fine to enjoy the pleasures and grief in pain. With the magnified sense of self and environment, the individual is now ready to withdraw his senses from overindulgence in this physical world. Like the sweet taste of dessert is momentary but an overindulgence fools the mind by the persistence of sweetness even in the absence of dessert. Hence, sensible management of senses prevents overindulgence in worldly pleasures and pains. The next step *Pratyahara* details more about this ability of withdrawal.

Pratyahara and Mindfulness

Notice a turtle walking on the shoreline. Its pace is slow; limbs are in rhythm following the path to reach the goal. Suddenly if the tide struck by, the turtle curls in his limbs and head inside the shell. It withdraws itself from the effects of its immediate environment without really leaving the situation. Figuratively, when an individual withdraws his senses and mind from the useless information of the environment, he becomes a turtle to them. This is *Pratyahara*, an ability to cultivate silence, happiness and withdrawal that eventually leads to the highest form of pleasure. This withdrawal shall not be misunderstood with psychiatric conditions. Here the withdrawal is for spiritual enlightenment and by choice of practitioner. It becomes a part of a lifestyle like the practitioner attempts to speak only when required and uses the minimum and appropriate words.

This stage is closely associated with mindfulness state (insightfulness) because *Pratyahara* helps to withhold mind from an ongoing perception of the external and internal environment in the form of involvement in useless activities. It brings one-mindedness, focus on self, patience, and mildness (just like mindfulness meditation). *Pratyahara* rejuvenates the self in a way that the practitioner sheds of his old self by letting go of old habits, beliefs, thoughts, etc. It can be parallelized with the re-integration suggested in mindfulness meditation. The ‘monkey mind’ (the mind of one who does not practice any form of meditation) has now restored mental balance, not driven by thoughts-emotions-feelings of past or future and full attention is pinned at the moment.

Pratyahara can be conceptually encircled with Buddhist noble paths (right speech, livelihood, thought, action and effort). Once a person attains this ability to cultivate inner peace, silence, withdraw from the material world with intentions to self-discovery, he is ready for enhancing the power of concentration via *Dharana* and *Dhyana*.

Dharana, Dhyana, Samadhi, and Mindfulness

All meditative practices begin with the fourth state of consciousness i.e. *turiya* (Vyas & Vyas, 2017) and this process is facilitated by *Pratyahara*. *Dharana*, *Dhyana* and *Samadhi* are the last three limbs of yoga and together are referred to as *Sanyam* (Tapasyananda, 2015) or control. Maharshi Patanjali explained *Dharana* as binding attention beyond a single target. It leads the individual to the next stage i.e. *Dhyana* where total concentration is achieved after practicing it in *Dharana*. *Dhyana* eventually leads to *Samadhi* which is the deepest stage of concentration. The process of going forward from *Pratyahara* to *Samadhi*

is explained further. During the festival of *Durga Puja* (worship of Goddess *Durga*), family or communities bring the idol of *Durga* home. They decorate the place of installing the idol with fresh flowers and fruits for ten days. They pray to her single-minded to earn her forgiveness, empowerment and blessings to cleanse the monkey mind. On the last day, the idol is immersed in water and every devotee ducks all the negative thoughts, feelings and actions with it. This process develops positive energies in body and mind. Submerging the idol symbolises with removal of emotional fatigue due to negative thoughts and actions; and adheres or vows to change the life perspective from negative to positive that comes ahead. This is the process of *Dharana*, *Dhyana*, and *Samadhi* in a nutshell.

Meditation begins with *pranayamas* the mind is focused breath and regulation of breathing pattern. Thoughts tend to prevail and for a moment they too stop. *Pratyahara* makes it possible to observe every moment of life as an observer and not as an actor. Gradually mind casts away from everything except breathing. After mastering the art of *Pratyahara*, the individual gathers all the mental energies and directs them toward a certain point to keep his mind focused. For this he must choose or create a calm environment. The eyes can be shut or open but the focus should be on one target for a minimum of ten minutes. In case of eyes shut, focus on chakra or mantra. This is *Dharana*, the ability to bring mental energies to focus or concentrate on one point or object without noticing and acknowledging anything else at that moment.

Regular practice of *Dharana* enhances mental strength, increases the ability to remain focused and trains the mind to remain calm. In the state of *Dharana*, physical and mental consciousness increases to cease all restless thoughts and emotions. Thus enabling to consume oneself in *Dhyana* or meditate without distraction. For attaining or practicing *Dharana*, one needs to stay focused in a conscious state of awareness. When an individual focuses his mind at a certain point, he often starts with external objects before moving to internal. In Mahabharata, an epic *mahapurana* of Indian knowledge tradition, the conversation between Arjun and his teacher Dronacharya during an archery competition displays *Dharana* in Arjuna. To each apprentice the teacher asked to target the eye of a model bird sitting on a fruit tree and shoot an arrow. Except for Arjuna, all others replied seeing the tree, its fruits, leaves, and the sky and missed the target. Only Arjuna replied seeing the eye of the bird and nothing except it and hit the target. This is *Dharana* in practice. In modern times, this narrative can be applied to each person who tries to focus on one task but fails to do so because of surrounding other tasks. Imagine yourself planning on paying bills for electricity via online mode and open your computer for the same. But instead of browsing the electricity board website, you open your emails and start responding to emails. Then you move on to your social site pages for a brief or long period and shut down the computer. Suddenly you realize that you had to pay the bill and had to use the computer for the same, instead your mind drifted to other tasks. The nature of our mind is unsteadily and the practice of each stage of yoga makes it steadier. *Dharana* can be facilitated by fixing of the mind on a target in the environment. Simultaneously imagination can also be sought to fixate minds such as an image of a flower, a deity or a flame in the center of one's being (Tapasyananda, 2015). The yoga steps from *Yama* to *Pratyahara*, help in mastering the art of *Dharana* because it requires to focus on breath, body and mental processes. The regular practice of *Dharana* enhances the mental ability to remain focused on all the activities of life.

After *Pratyahara* and *Dharana*, one progresses to *Dhyana* i.e. meditation proper. When the mind is trained to remain fixed on an internal or external point, the individual experiences an unbroken flow of power and this state is *Dhyana* (Tapasyananda, 2015). Beyond this state the individual rejects the external environment completely and meditate only on the internal self that is *Samadhi*. According to Vyas and Vyas (2017), *Samadhi* is the elimination of mind. This stage is a progression from ego to the

unification of the soul with supreme power (God). The process from *Dharana* to *Dhyana* to *Samadhi* can be analyzed- the mind first concentrates upon an object, continues through it for a longer period and then dwells on the internal self. So, the meditation begins with a large object and gradually moves to fine ones and ultimately to objectlessness. It is a shift of perception from external objects to intentions of self and then to self sections. Meditation regulates the parasympathetic system thus bringing about relaxation response and brings a transformation of personality and consciousness (Vyas & Vyas, 2017) and reduces the production of the stress hormone, cortisone (Vyas & Vyas, 2017). Mindfulness meditation practitioners and researchers in the above-mentioned studies of the same have reported a feeling of well-being after their weekly sessions. However, if one practices meditation for the long term as directed in yoga, it brings longevity; i.e. an increase in the melatonin level resulting in physical rejuvenation and regeneration (Vyas & Vyas, 2017).

Swami Tapasyananda (2015) suggests that for the practice of *sanyam*, the individual should try to isolate himself from the material world, limit his use of verbal communications, reduce his diet to minimal and prefer the lifestyle of simplicity. These practices make the nerves calm, mellow down the temper, control senses, bringing our attention to one focal point within us and meditate to spiritual uplifting. Control over mind established by one's self is healthy. Success attends those who have energy, perseverance and moral fitness (Tapasyananda, 2015). After mastering all the stages of yoga, an individual acquires knowledge of everything around him, including his thoughts and emotions and evolves as a yogi. He gains complete control over his mind. This state is the highest state of meditation and existence where happiness is experienced without desires (Tapasyananda, 2015). As a devotee and out of curiosity, the author asked senior monks (five to seven) of Ramakrishna Mission, Vadodara to share more about being a yogi (as a state) and feelings associated with it. As told by them, it is a state of spiritual contemplation that their souls have attained; they are desire less, blissful, and see the world as beauty and temporary. Yoga practices require *tapa* or austerity of days and months-long, sometimes years compared to weekly programs of mindfulness meditation. Years of *tapa* in yoga meditation results in long term physiological and neurological changes associated with attention (and neuroplasticity) (Vyas & Vyas, 2017).

Practicing mindfulness also requires the mind to focus on every single object and moment and actions. With the practice of yoga, individuals can also be able to attain focus and a one-pointed mind as required for being mindful. The author is trying to establish an association between yoga and mindfulness to suggest that what is required by the latter can be gained by steps mastered in the former. Practicing yoga makes an individual focus perfectly in his life. It works for physical, psychological and spiritual development with a disowning of the materialistic world. The goals of mindfulness are very similar to that of yoga. Hence, to achieve the mindfulness one can practice and master the steps prescribed in yoga.

CHALLENGES, ISSUES, AND SOLUTIONS

Yoga and mindfulness have some hard challenges to meet. To begin with, yoga is considered a religious practice instead of spiritual and philosophical. The yoga and state of mindfulness are commonly associated with a treatment plan, only to be organized after some physical or mental condition. The effects of both are difficult to quantify (because it's experiential) and hence their reliability and validity are always under scrutiny. *Samadhi* can be goal-oriented or goal-less experience but people who achieve this stage are difficult to get an interview of their experience (an attempt by the author to interview monks in a monastery, Vadodara). These practices require stillness of mind and body and in the world of chatting,

twittering, and another social media buzz, how can one stay one-minded? The lifestyle in today's time demands being glued to the chair or mobile or laptop, coupled with fast food because the time invested in cooking and dining is shifted to either travelling or trying to meet deadlines.

Today's lifestyle demands an individual to be efficient in the profession, soft skills, use of social media, and affluent creative. But most of the times, professionals in different fields report stimuli around them being overwhelming and negative. They are recruited for their creative nature but their creativity is not always welcomed by authorities. Their autonomy is challenged often, hence resulting into office politics and rivalry instead of healthy competition. The food habit, sleep pattern; work-life balance, etc are so demanding that they crush the quality of life. As a result, society has more number of mental and physical ill-health and an inconducive environment, such as lifestyle diseased people, broken families, unsatisfied spouses, disoriented children and unhappy individuals. Diseases of variants are knocking the doors making old, middle and young generation sick. Diabetes and cancer have become common diseases across age and gender. The sickness is not limited to physical ailments but has extended to psychological ailments. Daily newspaper reports crime, self-harm, addiction, etc inferring an exponential growth in vices due to a decrease in morality and spirituality. In a nutshell, disease of mind and body can be handled with the practice of yoga.

To a non-professional or non-practitioner, Yoga is entitled to *Asana* and *Pranayama* only. Etymologically 'Yoga' originated from the Sanskrit word 'Yug' meaning union. The union is of *JeevAtma* (individual soul) with *Paramatma* (universal soul). Diligent practice of every stage of yoga brings in the experience similar to the mindfulness meditation as discussed in the above paragraphs. To have this experience, the eight paths of yoga must be followed with proper knowledge. Yoga teachers are required to begin the training of yoga from the knowledge and practice of *Yama* and *niyama* principles. Awareness regarding the importance of *Yama* and *niyama* in personal and social life will strengthen the individual and society like strengthening the roots of a plant with manure and soil. Generally practices of virtues are considered as being stubborn, orthodox and inflexible; instead adaptation of *Yama* and *niyama* keeps one morally fit. Regular practice of *Asana* and *Pranayama* leads to physical and mental fitness. The practice of *Asana* shall not be only intended to a reduction of weight and practice of *Pranayama* to cure headaches or physical strain. These four steps are external cleansing practice and it's a challenge to follow them regularly. One might think why following a set of virtues and physical and breathing exercises be a challenge? The answer lies in our lifestyle and our desires.

The yogic lifestyle requires one to omit vices (*Yama* and *niyama*) for freedom from desires and worldly pains (another challenge), whereas in a corporate culture we can see professionals prospering (financially) with vices. As a leader, they set wrong examples for their subordinates and followers. The success thus attained by vices is momentary and materialistic. It does not last for a long time. It does not bring honor to one's family name. The major challenges and issues faced by any person practicing *Yama* are due to the changing social norms from pro-social to self-serving. Healthy living requires spiritual growth. But in recent times, the author has noticed that truth is spoken for the sole sake of self-serving ulterior motives. Stealing and acquiring possessions from another individual is a common practice in personal and professional spheres of life. The idea of *brahmacharya* is now restricted to marital status. The teachings from ancient scriptures are manipulated and confabulated by authoritative members of the society; hence true knowledge is not reaching people of society for their welfare. As a result, the population today is more focused on enjoying immediate and material gratifications. They do not realize that acquiring momentary pleasure is against the five conducts of *Yama*, and such a pleasure is not beneficial either self or others. Actions of falsehood, stealing, bullying, and neglecting true knowledge

bring stress, conflict and frustrations in personal and professional lives. These actions make individuals mindless. Faulty behavioural patterns are a result of “mindlessness” because they involve an attitude of escapism, negative and pessimistic thinking, emotional reactivity (impulsivity) and social remoteness.

With this lifestyle, people adapt to bad food habits like eating and drinking standing, the dependency of junk food, coffee, and tea, etc. The lifestyle has increased lifestyle diseases like obesity, diabetes, cervical pains, hypertension, back pains, abdominal fat, etc. *Asana* and *Pranayama* along with *Yama* and *niyama* can help with these problems (not if genetic or with some chronic history) (Raub, 2002) and in a reduction in mental health issues stress (Granath et al., 2006; McCaffrey et al., 2005). Everyday practice of yoga (as prescribed by a teacher or personal trainer) is better for healthy living. Shifting perspective from materialistic achievements to spiritual will help individuals find inner peace. It will also help him respect, appreciate and accept people and the environment around him.

RECOMMENDATIONS AND FUTURE RESEARCH SCOPE

With all the challenges and issues noted above, yoga and mindfulness have a bright future scope for research in areas such as neurophysiology, psychology, psychophysics to name a few. The author suggests young scientists use both experimental and experiential methods for understanding the progression of the human mind from different stages of consciousness through yoga. Mainstream psychology needs to align Indian psychology and its methods. The findings and methods of the latter should not be compared with current theories or models of western psychology for a simple reason that in Indian Psychology, the potential for the development of new models is still afresh.

Interdisciplinary research including all forms of meditation shall be promoted for following-

For education administrative and academicians, such research will provide a new perspective of handling and guiding students to achieve their goals and become a model citizen. They will learn to prioritize values over marks.

For parents, such research can be an eye-opener in child-rearing. They will learn and teach the lesson of a healthy body and mind over materialistic achievements. Parents fear the most about the future perspectives for their children and in due course they try to build their career instead of character. A child with a strong character can survive any turmoil and carve his path to success like a good sportsmanship spirit.

For practitioners in the field of mental health (non-clinical), yoga helps in controlling and regulating problem behavior in children and adults such as impulsivity, anxiety, etc. This suggestion is from the author's personal experience as a professional. This case is not published but sharing it here is worth proving a point i.e. uses of yoga as a technique with children and parents. This presentation included consent from the client and parent. Their details are not elaborated for confidentiality purposes. The client is a nine-year-old boy with diagnosed attention deficit hyperactive disorder (ADHD) and on medications for the same. The mother approached the author for counselling and guidance. As a part of the counseling and guidance regime the client and his mother were asked to practice *Yama*, *niyama*, few *Asanas* (age appropriate) and *Pranayama*. After four weeks of practice (two sessions of one hour a week with author) the child started to show improvement in his conduct such as lesser complaints from school and neighbours, better results in exams and homework and better peer relationship.

Similarly practice in schools and colleges for sports team shall be inclusive of routine; not just an intervention program (Goodman et al., 2014).

CONCLUSION

In conclusion, mindfulness is a state of mind that can be achieved and maintained with certain practices. The monkey mind needs a systematic procedure that can endure changes one goes through while progressing towards mindfulness. High spiritual goals lead to mindfulness and to achieve every step of yoga shall be followed industriously. There are various ways to cultivate mindfulness but yoga is more systematic and doable in terms of persistence.

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KEY TERMS AND DEFINITIONS

Chitta-Vritti-Nirodham: This is the first verse mentioned in Yoga sutra by Maharshi Patanjali indicating the core aim of yoga. Chitta is the mind, soul, consciousness that needs to be freed [nirodham] from disturbing or distracting entities [vritti].

Emotional Regulation: Is controlling the emotional state of self by regulating anger, anxiety, sadness and focusing on positive emotions.

Equanimity: When a person has a calm state of mind in different situations such as failure, success, emotional pains, etc.

Mindfulness: Awareness that stems from attending the present moment in a non-judgmental and accepting manner. Its roots are in Buddhist philosophy, later furnished and popularised as a practice by Jon Kabat-Zinn.

Sadhak: Any individual who practices yoga regularly and dons it as lifestyle.

Yoga: An Ancient Vedic lifestyle that aims to promote physical, psychological, and spiritual wellbeing. The yoga is propounded by Maharshi Patanjali in an ancient Indian scripture, Yoga Sutra.

Chapter 18

Experiences of Meditation on Twin Hearts by Naive Practitioners

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ABSTRACT

Meditators' subjective experiences mostly focus on the psychological and physiological benefits the practice offers. While most investigations understand meditation to have commonly induced a meditative state, the bioplasmic experiences are vital in sensitizing the practitioner to the subtle changes in the body that are often overlooked, and Meditation on Twin Hearts serves as a platform to highlight these experiences. The present study aims to understand the bioplasmic experiences and other sensations of the participants during Meditation on Twin Hearts in a two-hour session. Using an exploratory study design, 24 participants', aged between 28 to 59 years, responses were analyzed, and results were drawn using thematic analysis. The results indicate that 70.8% of participants experienced bioplasmic energy in novel forms. Further, it can be elucidated that in the meditation process, one's awareness of the subtle bioplasmic or transcendental changes is also enhanced.

INTRODUCTION

Traditionally the link between eastern culture, meditation practices and spirituality are well known, the key aspects involved in meditation has philosophical doctrine rooted in Buddhism. Meditation is a medium to self-regulate the mind, which emphasizes relaxed mood, focused attention, an altered state of awareness, and maintenance of a self-observing attitude. During meditation, the practitioner is fully alert, aware, and in control of one's faculties with no unwanted thought activity experience. Meditation has numerous beneficial effects on consciousness, awareness, and mood. Several studies have implied that meditation practices will result in structural and functional changes in the brain (Bigliassi & Bertuzzi, 2020).

How does it feel to meditate? What does one experience during meditation? Observing the experiences during meditation to have an objective concept of the inner experiences has been the focus of research only in the past few decades, owing to the rich evidence that meditation has profound effects on health and wellbeing. However, such an approach to developing a model or theory can be questioned due to the existence of subjectivity in an individual's experience (Walach et al., 2011). The primary goal of contemplative science is to become familiar with the nature of one's mind. Various traditions of meditation practices lead to different psychological and somatic effects, and they influence various areas of the brain accordingly (Fredrickson et al., 2017). Although diversity exists in their mechanism, the qualitative reports of various transcendental states during meditation all include a sense of timelessness (Berkovich-Ohana et al, 2013), space less-ness (Ataria & Berkovich-Ohana, 2015), unconditional love and peace, profound joy (Beauregard & Paquette, 2008), and loss of boundaries of the self (Dor-Ziderman et al., 2013). Studies matching experiences to specific meditation traditions are scarce, making the transcendental experiences generic and diluted.

Meditation on Twin Hearts (MTH) is a loving-kindness, compassion meditation technique developed by Master Choa Kok Sui. MTH activates the chakras in the energy field of the body. Chakras are the energy vertices that receive, assimilate, expresses, and transform the energy. The spinning sphere of bio-energetic activity of chakras emerging from the ganglionic nerve branching forward from the spinal column in a non-physiological form. But it has control over physical, psychological and spiritual functions. Eleven chakras span from the lower part of the spine to the vertex of head (Sui, 2009). Mainly in MTH, the chakras of heart (the center of the emotional heart) and the crown (the center of the divine heart) are involved during the practices. When an individual meditates on the twin hearts, the crown chakra receives the divine energy from where it is dispersed to all other body parts. The prayer of St. Francis of Assisi, which is used during MTH is a proactive engagement in many positive experiences such as love, joy, pardon, forgiveness, hope, faith, empathy, and gratitude. The meditation on twin hearts can be practiced following the steps outlined below.

Stage 1: The energy centers, which are the gateway for positive emotional (heart chakra) and divine experiences (crown chakra) are activated.

Stage 2: Prayer of St. Francis of Assisi, following the tradition of positive psychology, as a prayer of compassion and blessing the earth.

Stage 3: Chanting of Om and observing stillness, where contact with physical body is kept to a minimum, and focus is towards expanding consciousness.

Stage 4: The assimilated energy during stage 3 is used to bless the earth, which is then followed by rooting.

During MTH, the individual experiences physical, psychological and bioplasmic experiences. The experiences which don't belong to physical or psychological criteria are considered as bioplasmic experiences. In the human biological system, the bioplasma can store, integrate, and manage energy with information processing. Any energetic disturbances in this layer are counted as information, its effects are reflected in bioplasma, the information is then coordinated and transformed through carriers and later becomes a part of consciousness (Adamski, 2011). The chakra system is often referred to as a bio-socio-psycho-spiritual model of consciousness, and the *Anahata (Heart chakra)* as heart-centered consciousness (Beshara, 2013). Any change in the state of the chakras therefore has an impact on consciousness. This study makes emphasis on the bioplasmic experiences during the practice of MTH.

Existing meditation research investigations are focused on understanding the neural correlates of meditation and advancing meditation-based interventions. Apart from the traditional spiritual literature view, scientific investigations have to be conducted to know different stages, levels, and goals of meditation (Batchelor, 2011; Lama, 2011; Rukmani, 2013; Shear, 2006; White & Magee, 2019). Changes in bioplasma or chakras influence our mind and body, resulting in various disturbances at a physical or psychological level when there is depletion or overactivation. During the meditation, it is theorized that the heart and crown chakra are activated and regulated to bring about changes in physical and psychological states of being (Sui, 2015). The current study attempts to study the experiences of meditation of twin hearts in-depth as perceived by novice practitioners, assessing at each stage of its progression, the mechanisms, and the correlating physical, psychological and bioplasmic changes.

METHOD

Design

The current study used an exploratory study design while using qualitative analysis to get in-depth information on experiences through MTH. Since there have been no earlier studies on the same lines, an exploratory study design was adopted to gain insight into this phenomenon. Using a grounded theory approach, an attempt was made to formulate a theory from the data gathered rather than a predisposed hypothesis.

Sample

The sample chosen for the study were 24 participants between the age-range 28-59. Participants were selected using the random sampling technique. Pregnant women were specially excluded from the study as energy generated by the meditation, especially if done intensely, may overwhelms the fetus (Sui, 2013).

Inclusion Criteria

- Individuals interested to take part in meditation
- Individuals above 18 years
- Individuals consenting to provide written feedback

Exclusion Criteria

- Individuals who practiced MTH earlier
- Individuals with heart ailments, glaucoma, unregulated high blood pressure

- Pregnant women

Tools

An open-ended questionnaire was given to record participants' experiences about meditation on twin hearts after the meditation was conducted. The questionnaire comprised of questions aimed at procuring the demographic details of the individual and their understanding and experience of the meditation practice. The questionnaire was prepared solely for this study. The open-ended questions focused on practitioners' experiences during several stages of the meditation, and if it had any impact.

Study Procedure

The sample was chosen from Abdul Nazeer Sab State Institution for Rural Development (ANSSIRD) Mysuru, which includes government officers whose education ranged from graduation to post-graduation. On obtaining permission from concerned authorities, a 2-hour procedure was carried out, of which 15 minutes of MTH was practiced by 24 participants. Participants were guided with instructions of MTH as conceptualized by Choa Kok Sui, followed by questions that allowed government officers to answer in open text format which intended to document their meditation experiences.

Coding

The responses from the participants were recorded after the practice of MTH. Responses were then categorized into different domains. Mainly, similar expressions were grouped under various domains of bodily, psychological and bioplasmic experiences to build a theory that provides a link with the data.

RESULTS

This study included 24 participants, out of which 79.1% were male and 20.8% were female. 58.3% of the population were from an urban area and 41.6% of the population were from a rural area. 50% of the population were graduates, and 50% of the population were postgraduates. All belonged to various religious backgrounds, state government employees, and sampling ensured all participants were non-meditators. The results, though encouraging, have reflected the experiences of a group of people.

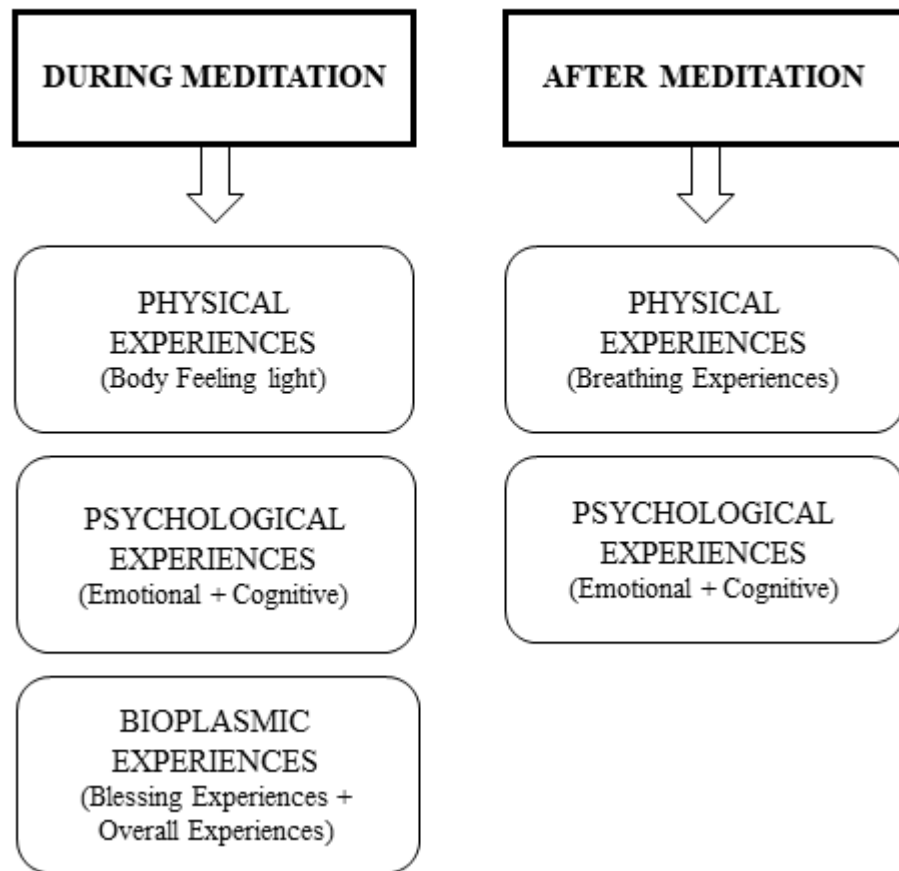
The meditation experiences of the participants were consolidated, coded, and grouped into similar expressions and the qualitative analysis were carried out. There has been only one session conducted on this population wherein the responses like feeling light about the body, feeling stress-free, sweating, painlessness, etc., were categorized under "bodily experiences." Responses like the perception of energy, change in thoughts and feelings and perception of energy in different forms were categorized into "feeling anything new which you have never felt earlier". Responses like changes in temperature, sensations and movements, power generation were categorized into "experience between hands during blessing".

Thematic Analysis

Based on qualitative analysis, 2 main themes were deduced based on two categories, during and after meditation (Figure 1).

Figure 1. Themes generated for the two categories of results – during and after meditation

EXPERIENCE DURING MEDITATION ON TWIN HEARTS



1. Physical

Meditation leads to many positive physical changes. During the meditation process in this study, some participants (24%) (R1-R11, R13, R15, R17-R19, R23, R24) have expressed that, their body becomes light, they felt very comfortable and free from tension (Table 1).

Experiences of Meditation on Twin Hearts by Naive Practitioners

Table 1. Results of the main theme of experiences during meditation under different criteria

Different criteria	No. of Responses	Experiences	%	Participants
Physical	39	Feeling light body, becomes cool, hands getting heated up, the body is light, the body is free from tension, free, very comfortable The vision was clear, heated up, weight was put on hands	24.0	R1*,R2,R3,R6,R7,R9,R10,R11,R13,R15,R17,R18,R19,R23,R24
Emotional	42	Feeling joy, happiness peace, no anxiety and fear, peaceful, composed, expressed joyfulness, love everyone in the universe, living together, grace	25.9	R1,R3,R5,R7,R8,R9,R10,R11,R12,R14,R15,R16,R20,R21,R23,R24
Cognitive	21	Concentration, free of thoughts, imagine positive thoughts, free of thoughts, positive thoughts, better thoughts, etc.	12.9	R1,R2,R6,R9,R12,R13,R14,R18,R20,R22,R24,
Bioplasmic	53	Some energy is sent out from palms, some kind of force pushing and pulling, energy was flowing in the form of white air, energized, connected to some cosmic power, feeling outworld, living in cosmos space, light and flying in air, force, power in hands, releasing strength, gravitational force, etc.	32.7	R1,R2,R3,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15,R16,R17,R18,R20,R21,R23
During blessing	07	Love everyone in the universe, blessing happiness and health to everyone, welfare of world, everyone shall be blessed etc.	4.3	R16,R10,R11,R13,R14,R18,

*R indicates the participants. There were 24 participants in the study, and hence each of them were numbered.

2. Psychological

Emotional

Meditation can generate positive emotions in an individual. During the meditation process in this study, some participants (25.9%) (R1, R3, R5- R8, R9- R12, R14- R16, R20,R21,R23,R24) have expressed that they felt joy, happiness, peace, and absence of anxiety.

Cognitive

Meditation induced a state of thoughtlessness. During the process, some participants (12.9%) (R1, R2, R6, R9, R12-R14, R18, R20, R22, R24) expressed that they could focus and concentrate better, and experience a state which is free of thoughts, leaving them feeling peace.

3. Bioplasmic

A important objective for this study was to inspect the bioplasmic experiences. During the MTH process, some participants (32.7%) (R1-R3, R6-R18, R20, R21, R23) have expressed that they felt cosmic energy, a feeling of flying in the air, power in hands, pushing and pulling experiences. Blessing the earth: MTH has a special segment in meditation wherein the individual blesses the whole earth with positive energy. During this process, the experiences were quite distinct from other experiences. Their experience was filled with positivity. About 4.1% of the participants (R16, R10, R11, R13, R14, R18) expressed that they felt love towards fellow human beings, and truly wished that all beings were blessed with abundance, joy and happiness.

Table 2. Results of the main theme of experiences after meditation under different criteria

Different criteria	Total No. of responses	Experiences	%	Participants
Breathing	27	Systematic, smooth, free, slow, freeness, maximum utilization of air, helps to forget all type of negative thoughts, composed, long breathing, peaceful breathing, gaining energy to some extent, etc.	31.3	R1,R2,R3,R6,R7,R8,R9,R10,R12,R14,R15,R16,R17,R18,R20,R21,R22,R23,R24
Emotional	49	Love affection towards others, enthusiasm to do good things, calmness in mind, released from stress and anxiety, peace of mind, love towards the universe, emotions were controlled, relief in stress level, felt happiness, emptied hated feeling, etc.	56.9	R1,R2,R3,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15,R16,R17,R18,R19,R20,R21,R22,R23,R24
Cognitive	10	Good thoughts, change in mindset, free to think, free from bad thoughts, increase in concentration, reduced thoughts, etc.	11.6	R9,R11,R14,R15,R16,R17,R18,R20,R24

1. Physical

Changes in respiration rate

Several participants (31.3%) mentioned changes in their breathing pattern (R1-R3, R6-R10, R12, R14-R18, R20-R24). They expressed that their breathing pattern was systematic, smooth, free, slow, free, and there was maximum utilization of air (Table 2).

2. Psychological

Emotional regulation

About 56.9% of the participants (R1-R3, R5-R19) have expressed that, they felt, love and affection towards others, enthusiasm to do good things, calmness in mind, released from stress and anxiety, and peace of mind.

Cognitive

After meditation, 11.6% of the participants (R9, R11,R14-R18, R20, R24) expressed that, they felt, good thoughts, change in mindset, free to think, free from bad thoughts, increase in concentration, reduced thoughts.

DISCUSSION

The results of the study can be categorized into the themes as outlined in the results section. Further, when the experiences and benefits of the meditation practice are integrated into a generic theme, three major themes could be deduced.

1. Generation of Positive Physical Experiences

The MTH has had a soothing effect on the body. Compassion meditation reported measurable changes in the pattern of electrical activity of the brain as recorded on electroencephalograph (EEG), and powerful delta wave impulses were identified during the meditation (Kaufman, 2005). Positive effects of MTH on the brain, changes in electrical activity and a dramatic increase in brain synchrony (transition from beta to alpha and delta theta waves) after MTH have been mentioned in the research literature (Mehrotra, 2017). A slower respiratory rate was achieved in both novice and experienced meditators during meditation. A significant difference in respiratory rate among experienced vs novice meditators was revealed and experienced meditators held a greater decrease in the respiratory rate in comparison to the novice practitioners (Steinhubl et al., 2015). The current study has revisited this inference through the responses obtained from the participants, having felt slow and paced breathing during the meditation.

2. Generation of Positive Emotions (Emotional Regulation) and Cognitive Restructuring

Positive Emotions

In the current study, the results indicate that some participants experienced positive emotions during and after meditation. MTH among healthy subjects using psychophysiological measures identified the amplification of positive emotion and suppression of negative emotions (Valim et al., 2019). Loving-kindness meditation (LKM) such as MTH, has proven to be an effective practice for promoting positive emotions with psychological benefits. This meditation makes an individual feel calm and happy. A recent study on transgender women practicing MTH for only one session have expressed various positive emotions like happiness, enjoyable and calmness (Neha et al., 2021). A significant decrease in negative emotions was evident for loving-kindness meditation than mindfulness meditation (Zeng et al., 2015; Fredrickson et al., 2017), and similar mechanism may have been in place to produce such effects in the current study.

Positive Thoughts

In the current study, the results indicate that some participants experienced positive thought during and after meditation. Previous studies in the field have indicated that meditation impacts the cerebral processing of thoughts, physical sensations, and emotions. During meditation, participants were frequently encouraged to have thoughts, memories, and feelings that are associated with positive experiences (Bigliassi et al., 2020). Usually, when unwanted and unpleasant thoughts resurface during meditation, there is a tendency to push them away or suppress them. However, during the meditation process practitioners are helped to observe them non-judgmentally. Similar findings have been found in a study (Tarrant et al., 2019), indicating that the immediate impact of practicing MTH may facilitate stronger positive thoughts and acceptance of negative experiences. While the participant is guided to think of a happy time, they are also being guided to access happy memories to induce positive thoughts.

Blessing the Earth

MTH in its third stage has a special segment wherein the individual blesses the whole earth with positivity, which varied experientially from other experiences. While blessing with positive feelings, and hoping that others in distress will be alleviated of their suffering, MTH can be viewed as an agent encouraging pro-social behavior and altruism. Preliminary studies suggested the efficacious impact of brief compassion training on pro-social behavior towards strangers (Condon et al., 2013; Leiberger et al., 2011), it increased positive affect, decreased self-reported worry (Jazaieri et al., 2014) and increased self-acceptance following the anxiety (Jazaieri et al., 2018). Cultivation of self-awareness, compassion for self and others are possible through LKM, the emotional challenge during the practice must be carefully taken into consideration with proper guidance by giving importance to the potential emotional impact (Boellinghaus et al., 2013). It has been noted that meditators may primarily focus on the development of love and compassion initially for themselves and then progressively extend this love towards others whom they have a dislike for, starting from a friend, to a stranger and then towards all beings. It involves the replacement of negative thoughts with positive ones as pro-social or empathetic concern (Vago & Silbersweig, 2012).

3. Bioplasmic Experiences are Normal Phenomena and can be Experienced by Most.

Bioplasmic experience lies beyond the arena of mental functioning and offers an outlook point from which the mind can be appreciated (Adamski, 2011). A similar study carried out in the recent past also examined the perception of bioplasmic energy experiences, where the results indicated that most of the participants felt bioplasmic sensations when guided to do so (Jois et al., 2017). Eastern perspective terms these sensations, feelings, thinking, images and imagination as mental contents or objects. These are usually representations of a concrete event, abstract or imagined idea. The ability to sense or perceive an object which is usually referred to as awareness comes under the conscious and non-conscious cognizance, and these together results in knowledge (Ninivaggi, 2019). Therefore, when awareness rises, there is an automatic attention directed to these experiences. MTH while going into a deeper meditative state has been facilitative in arising awareness among the practitioners, acceding higher sensitivity to subtle bioplasmic experiences.

FUTURE RESEARCH DIRECTION

The current study paves the way for further exploration of the experiences of meditation, stepping into a vast and obscure discipline. Subjecting these experiences to scientific scrutiny has far been criticized and never the less questioned. Several experiences that have been reported are diluted, lacking semantic and conceptual clarity. Although consciousness and meditation have been repeatedly highlighted by several ancient texts, these concepts remain open to interpretation, hampering the development of explanatory models for these experiences. While meditation has provided promising effects on wellbeing, questions regarding its potency and therapeutic effects are yet to be uncovered. Questions such as – How long do these effects last? Will each meditation session have similar experiences? Does meditation have any unpleasant experiences? Does sensitivity towards bioplasmic experiences increase with time?

Future studies need to have specific parameters on which the effect of meditation can be compared before and after several sessions of practice. Additionally, experiences during meditation have to be recorded in as much detail as possible, for large samples, so that certain inferences can be made with confidence and clarity.

Meditation on twin hearts follows several aspects of loving-kindness meditation and original texts on MTH claim to have loving effects on those practicing it. However, further research may need to travel through experiences during MTH and how they can conceptually contribute towards inculcating loving kindness.

CONCLUSION

The current study has dwelled into understanding the subjective experiences during the MTH while also drawing inferences on specific mechanisms. Although the study is preliminary, it has regardless opened avenues to explore the bioplasmic experiences on a specific path. It may be implied that MTH holds promising results in inducing positive effects on physical, emotional, and cognitive states. Further, it can be elucidated that in the meditation process, one's awareness of the subtle bioplasmic or transcendental changes is also enhanced. Future studies that aim at prolonged duration spanning over a month can deduce underlying mechanisms and outcomes during and after meditation after consistent practice.

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KEY TERMS AND DEFINITIONS

Cognition: It refers to the mental processes involved in gaining knowledge and comprehension.

Compassion: Sympathetic pity and concern for the sufferings.

Experience: Practical contact with and observation of facts or events.

Loving-Kindness: Tenderness and consideration towards others.

Wellbeing: The state of being comfortable, healthy, or happy.

Chapter 19

Spiritual Emergency: Channelizing a Fire Within

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ABSTRACT

Mindfulness meditation has been proven efficient in treating many physical and psychological disorders. Mindfulness meditation techniques are also subjected to specific indications and contraindications. Scanning of gross body, thoughts, emotions, and memories are the essential components of any form of meditation. During those scannings, some unwanted memories and some unusual experiences are very much apparent. There are many energy points in the gross human body, which are correspondent to the endocrine system of the human body, known as Kundalini or Chakra. During meditation, those chakras are stimulated, and hidden energy is exploded; increased psychomotor activities manifest in the behaviors of the person. This behavioral manifestation is called a spiritual emergency. Professionals often confused this behavioral manifestation with psychotic illness. A spiritual emergency requires specific therapeutic management. Against this backdrop, this chapter attempts a review of research articles on spiritual emergencies and therapeutic guidelines to handle them in clinical settings.

INTRODUCTION

A human being is a spiritual being, and spirituality is an innate nature (Cortright, 1997). Spiritual needs — Abraham Maslow called it an essential need, and human being strives for spiritual growth (Maslow, 1969). To achieve spiritual growth and fulfill spiritual needs, people of all societies, communities, cultures, and nations adopt various paths; meditation is one of them. While searching for the answers to perennial questions and real-self, people encounter an innumerable crisis — a spiritual emergency is such a crisis. Spiritual emergencies manifest as confusion, anxiety, and identity-related problem, and disorientation while such manifestation is mistaken with psychotic symptoms (Grof & Grof, 1991).

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Conventionally, clinical examination in psychiatry reluctant to differentiate between psychopathology and mystical experiences. However, the Diagnostic Statistical Manual of Mental Disorders of the American Psychiatric Association identifies a spiritual emergency in the non-pathology category for religious and spiritual issues in code-V (American Psychiatric Association, 1994; Lukoff, 1985; Peteet, Lu, & Narrow, 2011). Despite that, all unusual experiences are assigned the labels of psychopathology in many clinical settings.

Most spiritual emergencies occur during meditative practices. People were turning away from organized religions; consequently, their attendance in religious places was declining in western countries from the 80's decade (Lewis & Melton, 1992).

Religiosity and spirituality are essential components of human life. However, religiosity differs from spirituality on specific grounds (Kumar, Dehury, & Shaw, 2020). Religions deal with a set of beliefs, organized worship places, rituals, and cultural norms. Spirituality is an intrinsic expression — meaning of self, the meaning of life, the purpose of life, hope, and surrender to the supreme being. Religiosity and spirituality share some components but differ in extrinsic and intrinsic manifestation (Kumar et al., 2020). According to the hierarchy of needs, religiosity and spirituality are the needs of the human being. As the identification of social affiliation, religions cater the social needs, whereas spirituality is about fulfilling the self-actualization need of human beings (Maslow, 1964).

An increasing number of people are adopting spiritual practices that are intrinsic. These intrinsic spiritual practices are diverse varieties of meditations, martial arts, tai chi, mantra chanting, pranayama, and kundalini awakening; these practices are stemmed from ancient Indian, Buddhist, and Zen traditions (Grof, 1985; Lewis & Melton, 1992). These meditative practices are gaining recognition around the globe; therefore, cases of spiritual emergencies are parallelly increasing and find their association with meditative practices (Grof, 1985).

In this backdrop, this review chapter attempts to shed light upon the mindfulness meditation, physiology & anatomy of kundalini chakra, phenomenology of spiritual emergency, the interface of spiritual emergency and psychopathology, differentiation of spiritual emergency from psychiatric symptoms, ways of identifying true spiritual emergency manifestation, and psychotherapeutic management of the spiritual emergency.

MECHANISM OF MEDITATION

Mindfulness Meditation

Mindfulness meditation closely follows the principle of gestalt practice. Gestalt is a German word — it means form, shape, configuration, and wholeness. Gestalt practice is all about exploration and integration; this practice strongly emphasizes full awareness of the process of living within a unified space of mind and body and expands our familiarization with outer space (Goldman, 2012). The popular method of mindfulness meditation is Vipassana — it is a pali word; it means to see things as it is. The purpose of vipassana is to increase objectivity. The practice of vipassana starts from observing our breathing pattern, then all parts of the body; our consciousness keeps rotating across the gross body. Gradually our consciousness escalates to our thoughts, emotions, prejudices, memories, and other psychic impressions. During the practice of vipassana meditation, practitioners maintain a noble silence, which helps them to explore their inner world. Our subjective perceptions are covered with multiple positive and negative

Spiritual Emergency

emotional influences. Gradually the perception of the vipassana practitioner changes and develops an objective outlook (Dalai-Lama, 2001).

Mindfulness Meditation and Pratyahara Practice

Likewise, vipassana and other mindfulness meditative techniques, the practice of *pratyahara* emphasize expanding consciousness. *Pratyahara* is the fifth limb of eight limbs of Patanjali's *AshtangYoga*. Two standard techniques of *pratyahara* are *YogNidra* and *AntarMouna*; in both of those techniques, awareness to breathing and scanning of body parts involves. Especially in the practice of *AntarMouna* involves the monitoring of thought content, thought flow, emotional influence on thought, division of thought into new several thoughts, and origin of thought. Gradually *antarMouna* practitioner develop *Sakshibhav* (witness aspect) — to see things from the third-person aspect as a witness (Satyanand-Swaraswati, 2001). Thus, vipassana and *pratyahara* both the meditative approaches share components of activating objectivity and self-monitoring, which are alternatively called mindfulness.

Mindfulness Meditation and its Clinical Relevance

The purpose of mindfulness meditation is to achieve spiritual growth and fulfillment; therapeutic goals are the short-term goal of this practice. Benefits in the physical and mental health are the byproduct of mindfulness meditation practice. Therefore, this meditative practice is used for relieving various physical and psychological ailments. A robust body of research evidence suggested that the practice of mindfulness meditation drastically reduced the depressive and anxiety symptoms; and healed the symptoms of post-traumatic stress disorder effectively (Banks, Newman, & Saleem, 2015). Because of the constant practice of mindfulness meditation, positive changes occur in the structure of the brain (Fox et al., 2014).

What is Kundalini?

The term “*Kundalini*” finds its early mention in the ancient book named *Hath Yoga Pradipikia* — it is described as “*like a key, it opens a way to liberation, it is coiled like a serpent. The who knows kundalini knows yoga. A yogi can direct it to move upward*” (Swami-Muktibodhananda & Satyanand-Swaraswati, 1998).

The dichotomy between spirituality and modern science could not gain recognition of the concept of kundalini energy in the scientific community. In 1928, few yogis demonstrated the effect of kundalini in front of doctors of the Bombay medical union. They scientifically described the function of kundalini; the reputed science journal “*Nature*” published this report (Stephenson, 1928).

Human existence consists of the gross body and the subtle body. The subtle body exists in the form of aura around the physical body; the subtle body has several layers: *prana*, *apana*, *vyana*, *udana*, and *samana*. The gross body stores the physical energy while the subtle accumulates the divine energy. The power of kundalini lies in the layers of the subtle body (Krishna, 2018).

Kundalini: Physiological and Anatomical Description

The energy centers are located at the various anatomical structures of the human body. During meditation, yogic postures, *pranayama*, and chanting these centers are stimulated, while activation of these

centers, practitioners undergoes vivid spiritual experiences — each energy center corresponds to a specific spiritual experience (Niranjanananda-Saraswati, 2002).

According to Swami Sivananda yogic tradition, there are eight chakras in the human body, which are directly connected with unilluminated centers of the brain. Most of the chakras are located along the spinal cord. Chakras are not in the physical entity; they are in energy form, so during dissection of the human body, these chakras can not be located. These chakras are *mooladhar*, *swadhisthan*, *manipur*, *anahat*, *visudhdhi*, *ajna*, *sahasrar*, and *bindu* (Satyanand-Swaraswati, 1996).

Mooladhara Chakra

It is the first *chakra* in spiritual evolution, where one goes beyond animal consciousness and starts to be a real human being. Mooladhara is located in the pelvic floor and corresponds to the coccygeal plexus of nerves. In men, it is located between urinary and excretory routes. In women, it is inside the posterior surface of the cervix; it corresponds to the perineal body (Jain, 2010).

Mooladhar accumulates all the passions: all the guilt, insecurity, complexes, and agonies are rooted in this chakra. The awakening phenomenon includes a feeling of levitation of the astral body upward in space, leaving behind the physical body. The common manifestation of *mooladhar* includes heat and tingling sensation in the coccyx rising upward (Satyanand-Swaraswati, 1996).

Swadhisthan Chakra

Swadhisthan chakra is located at the base of the spinal column at the level of the tailbone. It corresponds to the testes and ovaries in the human body. And it is physiologically related to the prostatic or uterovaginal plexus of nerves (Maxwell, 2009). The psychic propensities of *swadhisthan* are loss of fear of water, intuitive knowledge, ability to desire fulfillment, and awareness of astral entities (Satyanand-Swaraswati, 1996).

Manipur Chakra

Manipur chakra is located at the spinal column parallel to the navel; it is related to the solar plexus and control digestive and heat regulation in the body. *Manipur chakra* corresponds to adrenal glands (Krishna, 2018). *Manipur chakra* is the center of dynamism, energy, willpower, and achievement (Satyanand-Swaraswati, 1996).

Anahata Chakra

Anahat chakra is also known as the heart center; it is situated on the spinal column directly behind the chest. *Anahat chakra* corresponds to the thymus gland (Jain, 2010). The activation of *anahat chakra* manifests unconditional universal love and intense compassion. The practitioner who develops the *anahat chakra* may become an inspired poet, artist, singer. These practitioners are full of compassion and can influence any person by emitting positive energy (Niranjanananda-Saraswati, 2002).

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Vishuddhi Chakra

Visudhdhi chakra is located in the cervical plexus behind the throat pit and corresponds to the thyroid gland (Maxwell, 2009). Meditation concentrating on *vishuddhi chakra*, practitioners achieve excellence in eloquence and pervasive peace of mind.

Ajna Chakra

The location of Ajna chakra behind the midpoint of eyebrows is at the top of the spinal cord at the medulla oblongata and corresponds to the pineal gland (Nityabodhananda, 2009). Ajna chakra represents a higher level of awareness — a person receives knowledge without the help of sensory input (Niranjanananda-Saraswati, 2002).

Bindu and Sahasrara Chakra

The seat of *bindu* is at the top back of the head, exactly where the Hindu Brahmin leaves of a tuft of hair growing. *Bindu* is interconnected with the *vishuddhi chakra*. *Bindu* is the source of all creation. *Sahasrara* is not a *chakra*, as is often taught. *Chakras* are within the realm of the psyche. Practitioners attain the vision of *Sahasrara* in both formless and form. Some practitioners during meditation see the *Sahasrara* in a particular shape, while some practitioners just feel it without any form. The physiological perspective of *Sahasrara* corresponds to the pituitary gland (Satyanand-Swaraswati, 1996).

God Spot: Energy Centers in the Brain

In the decade of 1990, the extensive laboratory-based research output of Neuropsychologist Michael Persinger and Neurologist V.S. Ramachandran had explored the “God-Spot” in the human brain; the anatomical existence of this spiritual center is found among the neural connections in the temporal lobe of the human brain (Persinger, 1996; Ramachandran, 1998). Report of PET (positive emission topography) scans exhibited the lightening up of those neural during the religious and spiritual discussions. The stimulation of “God-Spot” varied according to the religious-cultural backgrounds. People who originated from the Christian faith responded to the mention of the word “God” Buddhist to their religious symbol, Hindu to the name of the deity of Hindu scripture (Ohm, Ram, Krishna, Shiva, Durga, etc.,). Additionally, this high activity of the temporal lobe is associated with a history of epilepsy and the intake of LSD (Persinger, 1996; Ramachandran, 1998). In a similar connection, the work of Austrian Neurologist Wolf Singer holds relevance, which exhibits the neural process in the brain related to the integration, purpose, and meaning of life (Ryff & Singer, 1998; Singer & Gray, 1995).

The Effect of God Spot Stimulation

In epileptic conditions, there are higher electrical activities than asymptomatic conditions. In experimentations, Persinger artificially stimulated the temporal lobes, and as an output — there were spiritual experiences — mystical experiences, out-of-body experiences, past life memories, and other paranormal experiences (Persinger, 1996). According to Persinger majority of temporal lobe-related spiritual experiences are limited to a few seconds but leave a tremendous effect on entire life; this spiritual experience

is capable of transforming the life of a person. Moreover, the intensity of emotions determines the depth of spiritual experience (Persinger 1996). The concept of God Spot is in resonance with the locations of *Sahasrara* and *Bindu* chakra. *Dharna* is the fifth limb of Patanjali Ashtanga yoga (eight limb yoga of Patanjali). Chidakashdharna is one of the common dharna practices — in sitting meditative posture with closed eyes, practitioner focus on the midpoint of eyebrows, left, right, ceiling, and floor inside the closed dark space of the brain (Niranjanananda-Saraswati, 1994; Satyanand-Swaraswati, 2001). Dharana practice involves the smooth stimulation of the left and right temporal lobes; before Persinger, in ancient India, sages had discovered the association of God Spot and temporal lobes.

The Manifestation of Kundalini Activation

The behavioral disinhibition of kundalini in each individual is different. However, some commonalities are observed in all cases. Kundalini's awakening manifests at various levels: physical, psychological, spiritual, and energy levels.

Physical Level (Maxwell, 2009)

- The person becomes sensitive to light, sound, smell, and the vast crowd
- Unprovoked sexual arousal and spontaneous orgasm
- Insomnia or feeling sleepy most of the time
- The person feels a hot or cold sensation around the navel and lower body, vibration through the body, and pressure in the forehead (Eliade, 1960; Sannella, 1989; Scotton, 1996).

Psychological Level (Krishna, 2018)

- People who experience spiritual emergency report prominent emotional states such as depression, grief, feeling of emptiness, anxiety, fear, nihilistic feelings, mood swinging, and childlike joy.
- A heart-opening feeling gives increased love, compassion, collective pain, empathy to the misery of the whole world, and blissed pulsating wave in the body (Collins, 2008).
- A person suddenly develops a feeling of extreme belongingness to the universe and distanced celestial bodies.
- Among such people, sensitivity to violent and sarcastic content increases.
- In dreamy states, they often see snakes, which are an ancient symbol of kundalini.

Spiritual Level (Satyanand-Swaraswati, 1996)

- People experience a feeling of blissfulness, liveliness, and divinity in everything, along with detachment from the physical body.
- People go through out-of-body experiences in dreamy and wakefulness states.
- Hearing voices in guidance and musical forms
- Sizeable spiritual practitioners develop extrasensory perceptions. Those are clairsentience (feeling or touching sense from unknown), clairauidience (hearing voice from an invisible and unknown source), clairolfaction (smell of unidentified objects), and claircognizance (knowing through extrasensory sources).

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- After meditative practices, some people have spontaneous regression to events of present life or life before birth.

***Energy Level* (Niranjanananda-Saraswati, 1994, 2002)**

- Spiritual practitioners, while sitting meditation, feel spiraling electric-like sensations rising along the spinal cord and other parts of the body.
- Some meditative practitioners report watery, wind-like, and heat around the body.
- Other meditative practitioners feel a burning and tingling sensation at the bottom of the spine and inner part of the body (Satyanand-Swaraswati, 1996; Swami-Muktibodhananda & Satyanand-Swaraswati, 1998).
- Energy intolerance is pervasive among spiritual seekers; they feel ill near the person of low energy aura.

SPIRITUAL EMERGENCY: EVOLUTION AND VARIOUS SYNONYMOUS

Typology of Spiritual Crisis

Sigmund Freud stressed more on psychopathology, which is the outcome of a disturbed balance between the id, ego, and superego. The repercussion of this imbalance is seen through anger, fear, obsession, repression, compulsion, and so forth. While Neo-Freudian evolved the concept of spiritual emergency. A vast body of research evidence reveals the phenomenon of spiritual emergency in clinical setup (Grof & Grof, 1989; Lukoff, Lu, & Turner, 1996; Perry, 1987; Scotton, 1996). There is a wide range of precipitatory factors of spiritual emergency: sexual experience, near-death experience, surgery, and spiritual practices (Guiley, 1991). These shreds of research pieces of evidence can be clustered in three categories: non-spiritual practice-related spiritual crisis, growth-oriented spiritual emergency, and harmful effect of spiritual emergency.

Non-Spiritual Practice Related Spiritual Crisis

Carl Jung, was very concerned about the spiritual component of human psychology — he defined the spiritual illness — it is all about distancing from the nurturing roots of self, which transcend both personal ego and associated culture and extend itself (Jung, 1954). Alternatively, it is defined as “soul pain” when a person disintegrates from the deepest part of within. “Soul pain” is described as an experience of fragmentation, alienation, and meaninglessness (Kearney, 1996). Transpersonal psychologists call spiritual emergencies as transpersonal cries, alternatively (Bragdon, 1990; Cortright, 1997; Maslow, 1969; Sannella, 1989).

Danah Zohar and Ian Marshall explained decreased Spiritual intelligence and spiritual illness are correlated, which is the result of losing connection from deep self. Spiritual intelligence is all about moral sense, envisioning unrealized possibilities, creativity, compassion, introspection on evil and right, and rising above rigid rules. Spiritual intelligence has nothing to do with religiosity; many atheists had high spiritual intelligence, while many religious leaders had low spiritual intelligence (Zohar & Marshall, 2001).

Growth-Oriented Spiritual Emergency

Dealing with a large chunk of spiritual emergency cases, the following pattern is identified: kundalini activation, shamanic journey, activation of central archetype, psychic opening, and karmic life. However, externalized awareness of the deep unconscious and superconscious mind is characteristic of cases of transpersonal crises or spiritual emergencies (Grof & Grof, 1989).

Spiritual emergency also encompasses the positive experiences: an inner awakening, visions, feeling of energetic aura, hearing voices, feeling of integration with the universe, detachment from the material world, past life memories, and out-of-body experiences (Grof & Grof, 1989). If utilized constructively, spiritual emergencies such as creativity and compassion can enhance spiritual growth and extensive contribution to social welfare (Bragdon, 1990; Guiley, 1991); however, unmanaged spiritual emergency distorts mental health (Guiley, 1991).

The Harmful Effect of Spiritual Emergency

Spiritual crisis is synonymous with spiritual illness; in such a situation — the values of lives are questioned; it leads to mental distress and nervous breakdown; people may land on substance use, precipitating mental illness, and suicide attempts (Zohar & Marshall, 2001). Spiritual emergency poses a hampering effect on the functionality of an individual in day-to-day life, which is manifest as confusion, persistent anxious mood, and identity crisis, disorientation, these manifestations closely resemble psychotic symptoms (Grof & Grof, 1991; Perry, 1999; Sperry, 2003).

In some cases, clinical researchers identified the practice of mindfulness meditation might induce psychotic symptoms among people with prior history of schizophrenia; the propensity of psychotic relapse intensifies in prolonged meditation, sleep deprivation, fasting, and discontinuation of psychiatric medicines (Walsh & Roche, 1979). Altered reality testing and changed behavior are observed among meditation practitioner who has a previous history of mental illness (French, Schmid, & Ingalls, 1975). Cases of meditation-induced psychosis report emotional stress, confusion, disorientation, anxiety, delirium, hallucination, sensory dysfunction, insomnia, and anorexia (Kuijpers, Van Der Heijden, Tuinier, & Verhoeven, 2007; Lustyk, Chawla, Nolan, & Marlatt, 2009). Mindfulness meditation is a potential cognitive kindler and induces partial epileptic signs (Jaseja, 2006).

A multicentric study observed the common unwanted effect among people who practice mindfulness meditation: increased criticism of other, social apathy, feeling of being socially alienated; additionally, anxiety, fear, and emotional pain were the most commonly reported symptoms among practitioners (Cebolla, Demarzo, Martins, Soler, & Garcia-Campayo, 2017). However, according to Dalai Lama, psychological and physiological changes are the natural process of Buddhist meditative practice. Nonetheless, Buddhist literature recognizes a few unwanted symptoms such as *Makyo* (Hallucination), Zen sickness, a sense of imbalance, and loss of identity (Dalai-Lama, 2001).

Differentiation Between Psychopathology and Real Spiritual Experiences

Among the individuals suffering from mania, schizophrenia, and other psychotic disorders, reports various kinds of hallucinations — they see, feel, hear, smell, and taste the things that don't exist (Sadock, Sadock, & Ruiz, 2017). Such symptoms may appear when the temporal lobe or “God Spot” function

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intensifies (Zohar & Marshall, 2001). However, healthy individuals show increased “God Spot” function only when they are attentive to religious and spiritual discussions (Ramachandran, 1998).

Koenig observed that the content of the psychopathology and mystical experience overlap to some extent, depend upon the cultural background of the person (Koenig, 2007). But there are essential demarcations between the experiences of healthy individuals and persons having active psychopathologies.

The behavior and the content people with active psychopathology report are disturbing, disorganized, negative, and bizarre. They lose contact with reality; they feel as external power control them, and disorientation to time, place, and person. On the contrary, the content of the mystical experience of healthy individuals reveals the intensity of emotions, orientation with time, place, and person, having harmony with surroundings, feeling of intense love, feeling of being loved, compassion, peacefulness, and serenity of mind (Jackson, 1991).

Moreover, the real spiritual experiences encompass the lack of suffering, lack of impairment, compatibility with a person’s cultural background, and the control over the mystical experiences (Moreira-Almeida, 2009).

The Guiding Principles for Identifying True Spiritual Emergency

The clinical assessment of spiritual emergency needs to be narrowly elicited from unusual conscious, perceptual, emotions, cognitions, and psychosomatic changes. Such changes are noticed in psychopathologies. These psychopathologies are attributed to anatomical, physiological, and biochemical changes (Grof & Grof, 2017).

In clinical settings, Grof & Grof (2017) suggested the following parameters to identify the phenomenon of spiritual emergencies.

- The altered conditions of consciousness, perceptual, emotional, cognitive, and psychosomatic functions indicate transpersonal issues. Those transpersonal issues are rebirth sequences, archetypal phenomena, and past life memories.
- If behavioral manifestation and verbal content reveal: body experience, the incidence of synchronicity, extrasensory perceptions, an intense energetic phenomenon (Kundalini activation), and identification with cosmic consciousness, it might be a strong indication of spiritual emergency.
- While assessing a spiritual emergency, clinicians need to rule out the possibilities of structural abnormalities of the body, such as gross organic disorder, infection, tumor, cardiovascular, previous history of psychiatric disorder, family history of psychiatric disorder, and neurodegenerative diseases.
- Overall, clinicians need to ensure the intact condition of the physical organs of the persons showing manifestation of spiritual emergency.

PSYCHOTHERAPEUTIC MANAGEMENT OF SPIRITUAL EMERGENCY

The Conflict between Personal Ideology and Therapeutic Approach

Personal ideology can hinder the therapeutic process. Therapists having atheistic ideology don’t believe in the spiritual component of psychotherapy. Therefore, they hesitate to address spiritual issues and try

to fit the spiritual manifestation into a psychopathological outfit. Any sort of dogmatic approach is unhealthy for the therapeutic outcome, and the spiritual component is an integral part of holistic therapeutic assistance (Kumar et al., 2020).

Irrespective of personal faith-related ideological differences, the therapist must establish a trusting rapport with the client. The accentuation of a spiritual component is contrary to the traditional psychiatric approach. Nonetheless, inculcation of basic principles of psychotherapy, such as acceptance and respect for the therapeutic process, is necessary for the successful outcome of therapy (Mathew, 1992). The therapist needs to instill the feeling of acceptance and support without judging the client.

Therapeutic Guidelines

First and foremost, the client who is manifesting signs of spiritual emergency must discontinue the ongoing meditative practice.

Dietary Management

With the help of a trained dietician, a client needs to consume a high protein diet. A non-vegetarian client can choose red meat, and a vegetarian client may take high protein in the form of milk products (Del-Pe, 2005) and a large amount of water, honey, and sugar (Grof, 1993).

The Balance of Five Elements

According to the Hindu spiritual text, the human body is composed of five elements: earth, water, fire, air, and space (Satyanand-Swaraswati, 1996). The excess energy, which is the byproduct of meditative practices, and manifests in the process of spiritual emergency, can be released in the air, water, and earth element.

Role of Pranayama in Spiritual Healing

Based on the mind-body relation, the association between emotional disorders and breathing pattern is well researched (Brown & Gerbarg, 2005). *Sudarshan Kriya* Yoga is highly useful to regulate the breathing pattern and improve the autonomic nervous system and emotional well-being (Doria, De Vuono, Sanlorenzo, Irtelli, & Mencacci, 2015). *Sudarshan Kriya* yoga is a unique combination of various sets of pranayama (an art of breathing control), developed by the Art of Living foundation (The Art of Living, 1981). The meaning of *Sudarshan Kriya* is to develop a proper vision by purifying action — it is an advanced technique of regulating breathing patterns in rhythmic, cyclical, with slow, medium, and fast cycles. Besides material toxins, some other toxins in the forms of traumatic memories, daily life stress, distressful emotions, suppressed anger, and other suppressed negative emotions are accumulated in various parts of the body. *Sudarshan Kriya* is a miraculous way to release those toxins through airways using pranayama techniques (The Art of Living, 1981). In spiritual emergency conditions, the physiological, endocrine system is disrupted, and overall physical and mental health is negatively affected. *Sudarshan Kriya* brings the balance of physiological actions and the endocrine system and creates a calm and relaxing effect (Zope & Zope, 2013).

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Sudarshan Kriya is a blend of *Ujjayi*, *Bhastrika*, and prolong *Ohm* chanting. *Ujjayi* (Victorious breath) is an experience of conscious breathing sensation in the throat. *Bhastrika* (Bellows breath) is rapid inhale and exhale (The Art of Living, 1981; Zope & Zope, 2013). Shreds of evidence reveal the significant positive impact on relieving anxiety, depression, post-traumatic stress by increasing parasympathetic activities, and forming a state of calm and alertness (Brown & Gerbarg, 2005; Doria et al., 2015; Zope & Zope, 2013).

Grof (1980) developed holotropic breathing, which encompasses hyperventilation, music sound technology, physical workout. This breathing technique yielded an impactful outcome in resolving transpersonal cries or spiritual emergencies (Grof, 1988). The process of holotropic breathing is similar to *Sudarshan Kriya* — where with closed eyes, attention is focussed on bodily sensations and breathing; also, the pace of respiration is maintained faster than usual. During the phase of holotropic breathing or *Sudarshan Kriya*, there are fluctuations in emotional tensions, where emotional tension heighten and resolves as well. A client goes through multiple vivid experiences — reliving critical life events such as birth, infancy, childhood, even a glimpse of death or other transpersonal phenomena. During this breathing exercise, clients are advised not to judge or analyze their experiences and accept all the experiences with trust, as it is followed in Buddhist meditation techniques: simply watch the experience, register them, and letting them go (Grof & Grof, 1989). The holotropic therapy can be intensified using culturally appropriate evocative music and in group settings, where group dynamics also involve, but under the supervision of the therapist (Grof, 1988; Grof, 1980; Grof, 1985).

Healing through Water

Through swimming and sports-related to water, excess energy can be released into the water (Grof & Grof, 1989). Walking on the seashore gives additional benefits to spiritual emergency conditions (Lockett, 2019). In the absence of such outdoor facilities, the client can adopt another indoor technique. Take a half bucket filled with lukewarm water with two teaspoons of rock salt. The client can sit on the chair and put both his/her legs in the bucket for 20 minutes (Spiritual-Science-Research-Foundation, 2006). The salt and water have the property to absorb the negative energy and balance the energy (Gaia, 2014). Alternatively, a bath with saline water is also recommended for spiritual healing (Gaia, 2014); after the use of that salt mixed, warm water should be flushed out, because this water carries toxins of negativity.

Effect of Grounding

Earthing or grounding refers to the contact of the human body with the earth's surface. Grounding is a therapeutic technique that suggests walking barefoot and lying on the ground, during grounding activities, the human body receives electrical charges from the earth which gives a positive effect on the body (Lockett, 2019). Ground-related activities such as gardening are suitable for such symptoms. Running, jumping, hiking, squatting are recommended to relieve anxiety and maintain mood stabilization (Chevalier, 2015). An altered emotional state is one of the symptoms of a spiritual emergency. Therefore studies on such issues widely suggested that grounding activities attain spiritual healing and resolve spiritual emergency symptoms (Grof, 1988).

Effect of Artistic Expression

During meditation, several transformations take place in mind, body, and spirit. As a part of physical and emotional detoxification is one such transformation, which is a prerequisite for purification of mind, body, and spirit. In the process of detoxifying the mind, body, and spirit, unexpressed negative emotions release out; these negative emotions are anxiety, trauma, humiliation, physical, emotional, and sexual abuse, grief, and anger (Niranjanananda-Saraswati, 1994). Sometimes those negative emotions fail to release and are blocked in the mind and body. These blocked energies are a hindrance to spiritual transformation and manifest as spiritual emergency symptoms. According to Grof (1988), some artistic expressions such as mandala drawing, psychodrama, expressive dance, and Jungian sand play are instrumental in resolving the spiritual crisis.

Mandala Drawing

Mandala is a Sanskrit word, which means a sacred circle. In the *tantra* tradition of India, geometrical signs such as triangles and circles denote spiritual meanings. The various combinations of geometrical shapes form *yantra*, which is used in visual meditation. According to Swami Satyananda Saraswati, the immense power lies in our mind in the formless form, and this power expresses itself through the visual meditation on a *yantra*, as there is silent communication between those geometrical shapes and the unconscious mind (Satyanand-Swaraswati, 1996).

Carl Jung was deeply influenced by Indian spiritual philosophy and practice, and he introduced the eastern concept of the mandala to western therapeutic practice. According to Jung, mandala unifies all the opposites; through mandala, there is an expression of the unexpressed unconscious mind, it gives the sum of identity, and it is the union with self and the wholeness (Owens & Hoeller, 2014). Through psychotherapeutic use person restores a sense of healthy mental balance, self-exploration, and relieves anxiety (Malchiodi, 2010). Therefore, all pieces of evidence suggested Mandala drawing is a soothing exercise for transpersonal crises.

Jungian Sandplay

Similar to mandala drawing, Jungian sandplay is such a technique, which is a non-verbal therapeutic process. Based on the psychoanalytical principles of Carl Jung, Dora Kalff developed the therapeutic technique of Jungian sandplay. As a method of Jungian sandplay, clients are provided two trays: one filled with dry sand and another with damp sand. The therapist suggests clients make three-dimensional images out of those sand. While playing with sands, clients make miniatures with sand; those are archetype and symbols which communicate with multiple layers of conscious and unconscious thoughts and experiences. The healing properties of sandplay heal depression, anxiety, grief, and other unexpressed negative emotions (Kalff, 1971).

Psychodrama

Psychodrama is a psychotherapeutic technique based on the psychoanalytical school of psychology; Jacob Levy Moreno developed it. The purpose of psychodrama is to relieve pent-up emotions through catharsis. Through role-play, dramatization, and self-presentation, clients access suppressed thoughts

and emotions. It unlocks the hidden self through creative ways of psychodrama. The conventional techniques of psychodrama are mirroring, doubling, soliloquy, and role reversal. The dramatization may have single or double participation as the protagonist and antagonist. Likewise, other expressive techniques, psychodrama resolves anxiety, traumatic reactions, fear, depression, and grief (Pio-Abreu & Villares-Oliveira, 2007).

CONCLUSION

Spiritual emergencies or spiritual crises emerge from spiritual quest and spiritual practice. Mindfulness meditation and kundalini meditation share the process of stimulating energy points in a gross and subtle body of a human being. The manifestation of spiritual emergency appears similar to psychiatric symptoms, but on close inspection, spiritual emergency looks peaceful, inspiring, organized, and consistent content. Since spiritual emergency hampers daily life functions, so psychotherapeutic intervention requires. The psychotherapeutic approach focuses on balancing energy and the release of excess or negative energy through grounding, breathing techniques, artistic expression, and catharsis. A well-managed spiritual emergency leads to spiritual growth, which contributes to humankind.

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KEY TERMS AND DEFINITIONS

Kundalini: There is a mention in the ancient book named Hath Yoga Pradipikia — it is described as like a key, it opens a way to liberation, it is coiled like a serpent. The who knows kundalini knows yoga. A yogi can direct it to move upward.

Mindfulness Meditation and Vipassana: The practice of vipassana starts from observing our breathing pattern, then all parts of the body; our consciousness keeps rotating across the gross body. Gradually our consciousness escalates to our thoughts, emotions, prejudices, memories, and other psychic impressions.

Pratyahara: Pratyahara is the fifth limb of eight limbs of Patanjali’s Ashtang Yoga. It involves awareness of breathing and scanning of body parts.

Religiosity: Religions deal with a set of beliefs, organized worship places, rituals, and cultural norms.

Spiritual Emergency: Spiritual emergency manifest as confusion, anxiety, and identity-related problem, and disorientation while such manifestation is mistaken with psychotic symptoms (Grof & Grof, 1991).

Spirituality: Spirituality is an intrinsic expression — meaning of self, the meaning of life, the purpose of life, hope, and surrender to the supreme being.

Section 4

Mindfulness and Education

Chapter 20

Digital Distractions, Mindfulness, and Academic Performance With Undergraduate College Students

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ABSTRACT

This study examined the relationship between digital distractions, mindfulness, and academic performance with undergraduate college students. A total of 199 students completed surveys that examined digital distractions and the Five Facet Mindfulness Questionnaire (Baer et al., 2006). The results indicated that 96.5% of participants had a digital device near them when studying, and 94.0% used a digital device to help them study. The major purpose for using a digital device in the classroom was to check the time on their phone (91.0%) and text someone (88.9%). Some reasons for using a digital device for non-classroom purposes included to fight boredom (39.2%) and to stay connected with others (25.1%). Participants who had fewer digital distractions tended to be more mindful and a significant positive relationship ($r = .192, p < .05$) was obtained between overall mindfulness and academic performance.

INTRODUCTION

College students deal daily with academic issues like attending classes, writing papers, taking exams, completing homework, navigating roommate issues, and filtering distractions that are borne from digital device use (Rosini et al., 2017). Beyond their academic work, students have a variety of obligations competing for their time that include paid work, sports, recreational activities, and simple everyday life tasks that all combine to divert their focus (Alika, 2012; Zascavage et al., 2012). The combination of these diverse demands may impact student stress levels and academic performance in college (Adams et al., 2016).

Digital Device Usage and Distractions

The types of digital devices that college students have access to in the contemporary classroom include smartphones, laptops, tablets, and smartwatches (Eduljee & Girlando, 2016; McCoy, 2016). According to Pew Research Center's data report (2019), 96% of Americans between the ages of 18 and 29 own a smartphone device, almost 75% of adult Americans own desktop or laptop computers, and 52% own tablets like an iPad.

Digital device use in the college classroom ranges from accessing classroom information, texting, photo-sharing, and research (Seemiller, 2017). In a 2015 study of 675 college students, McCoy (2016) explored the use of digital devices in the classroom for non-academic reasons. His study revealed that 63% used their devices to combat boredom and suggested that students might benefit from adopting self-control skills to help maintain focus in the classroom. The Center for Research on Learning and Training conducted a study on college students' ($n = 1,415$) views of how laptops used by students seated nearby affected their attentiveness. Interestingly, 46% in the control group and 40% in the LectureTools group (actively engaging students, allowing students to take notes, and pose questions) indicated they were somewhat or significantly distracted (Zhu et al., 2010). Other research indicates that technologies like laptops and cell phones can interfere with attention and students' ability to learn in the classroom (Attia et al., 2017).

There is mixed research on the impact of digital devices on academic performance and students' perceptions on the use of technology in the classroom. For instance, May & Elder (2018) in a review of other research studies indicate that media multitasking interferes with attention, test performance, note taking, self-regulation, and negatively impacts student GPA. On the other hand, Siraj et al. (2015) found Malaysian medical students at a public university that reported high internet usage also reported higher academic performance. A 2016 study examining the efficacy of digital devices in the classroom illustrated that students felt that digital device use in the classroom was not a distraction. The majority of the students ($n=64$) in this study utilized their iPad during class, with 70% of the students indicating the use of the iPad was effective/very effective as a digital tool in their classes (Eduljee & Girlando, 2016). In contrast, a study conducted by Neiterman and Zaza (2019) indicated that 49% of students were distracted by other students' digital device usage that was unrelated to the class topic.

Mindfulness

Mindfulness is defined as:

Paying attention in a particular way: on purpose in the present moment, and non-judgmentally. This kind of attention nurtures greater awareness, clarity, and acceptance of present-moment reality (Kabat-Zinn, 1994, p. 4).

This definition encompasses a state of awareness and paying attention to our thoughts, feelings, and bodily sensations, while tuning in to our current feelings towards improving our ability to deal with stressful situations (Davis & Hayes 2011; Gu et. al., 2016; Langer 1993; Rosini et al., 2017).

The benefits of mindfulness have been widely researched (Siegel, 2010; Wells, 2013). Practicing mindfulness includes activities like education on the mind-body connection, individual or group meditation sessions, yoga, and mindful writing (Gupta, 2019). The potential positive consequences from adopting mindfulness activities include heightened awareness, improved attention, and increased levels of observing thoughts, feelings, and perceptions (Caldwell et al., 2010; Snippe et al., 2015).

When mindfulness activities are adopted by students to mitigate the unhelpful distractions that occur during academic work efforts, improved learning outcomes may occur. Prior research indicates that mindfulness may be positively related to academic performance (McCloskey 2015; Miralles-Armenteros et al., 2019). A qualitative study on six students who participated in a Mindfulness program as part of the Mindfulness Student Study indicated positive findings on the influence of mindfulness on academic performance (Bóo et al., 2019). The results indicated that mindfulness also reduced the stress of exams, allowed for greater enjoyment of studying, reduced procrastination, enhanced intellectual creativity and analytical thinking, and allowed for better encoding of study material. Students also reported that "... they were more aware of, and better able to change, their study and lifestyle behaviours" (Bóo et al., 2009 p. 10).

Baranski and Was (2019) studied the impact of mindfulness (n=37) and relaxation (n=33) practice on undergraduates' performance on quizzes in a Microeconomics course. Interestingly their findings differed from previous studies (Calma-Birling & Gurung, 2017; Ramsburg & Youmans, 2014) using the same methodology and measurement. The researchers posit that variables like gender, duration of mindfulness practice, belief in mindfulness, and willingness to use mindfulness techniques practice were the reasons for their contrary findings (Baranski & Was, 2019).

Other research indicates that mindfulness may be positively related to academic performance (McCloskey 2015; Miralles-Armenteros et al., 2019). Volkmer & Lerner (2019) found that individuals utilizing their smartphones to a greater extent experienced lower levels of mindfulness. Chiang & Sumell's (2019) study of 922 public university students indicated that less distraction resulted in improved learning outcomes whereby one standard deviation of increased mindfulness parlayed into a .08 standard deviation increase in a students' final class average.

Aims of the Study

Empirical studies examining digital distractions and academic performance as well as studies on mindfulness in the college classroom are plentiful and the results of these studies are mixed. However, research examining the relationship between digital distractions, mindfulness, and academic performance are scant. Thus, the current study is aimed at examining the relationship between mindfulness, digital distractions, and academic performance with undergraduate college students. Based on prior research, this study examined the following research questions:

1. What percent of students have used a digital device in the classroom for a non-classroom purpose?
2. Is there a relationship between digital distractions and academic performance?
3. Would students who have lower levels of digital distractions report higher levels of mindfulness?
4. Would students who have greater levels of mindfulness report higher levels of academic performance?

Ethical Approval

The current study was approved by the Institutional Review Board (IRB) at the Saint Joseph's College. An email with a link to SurveyMonkey® was sent out to all participants requesting their participation in the study. All participants were informed about the purpose of the study and signed an informed consent online. They were informed that all responses would be confidential and complete anonymity would be maintained in the study. Following the online invitation to participate in the study and complete the survey, the survey remained open for one week. At the end, completed data was obtained from 199 students.

METHOD

Participants

The participants in the study were 199 undergraduate students from a college in Maine, USA. Background information for the participants is presented in Table 1.

Table 1. Participant background characteristics

		Number (%) (n = 199)
Gender	Male	51 (25.6)
	Female	148 (74.4)
Mean age (SD)	Male	20.51 (1.01)
	Female	20.53 (2.00)
Class level	Freshmen	21 (10.6)
	Sophomore	34 (17.1)
	Junior	75 (37.7)
	Senior	69 (34.7)
Grade Point Average	Less than 2.50	4 (2.0)
	2.51- 3.00	40 (20.1)
	3.01- 3.50	77 (38.7)
	3.51 and higher	75 (37.7)
Number of Classes Enrolled	One	4 (2.0)
	Two	1 (0.5)
	Three	27 (13.6)
	Four	123 (61.8)
	Five	44 (22.1)

MEASURES

Demographic Questionnaire

Participants were asked to respond to questions about their age, gender, grade point average (GPA), class status, major and minor areas of study, number of classes they are taking, how many hours they study each week, whether they use a digital device to study, and how many hours of study time are spent using a digital device. Academic performance was measured by GPA which ranged on a scale from 1.00 to 4.00.

Digital Distractions

This section consisted of 9 items which asked participants to indicate whether they experienced technology distractions in the classroom. Permission was obtained to use the items for this scale from research by McCoy (2016). Some examples of items include:

- “On a typical school day, how often do you use a digital device during classes for non-classroom related activities such as texting, talking on a smart phone, emailing, surfing the web, tweeting, or social networking?” (Never, 1 to 3 times, 4 to 10 times, 11 to 30 times, more than 30 times) (McCoy, 2016, p. 21).
- “Which of the following have you done in class?” (Sent an email, texted someone, checked the time on your phone, used Social media, surfed the internet, played games) (McCoy, 2016, p. 22).
- “What is the biggest reason you use a digital device in class for non-classroom purposes?” (To stay connected, entertainment, to fight boredom, for related class work, and in case of an emergency) (McCoy, 2016, p. 24).
- “What is the biggest disadvantage to using a digital device in the classroom for non-class purposes?” (Do not pay attention, distract others, miss the lecture, lose grade points, get called out by the professor) (McCoy, 2016, p. 25).
- “How much of a learning distraction do you cause yourself if you use digital devices during class for non-class purposes?” (No distraction, a little distraction, more than a little distraction, big distraction, and very big distraction) (McCoy, 2016, p. 26).
- “How much of a learning distraction is it to you when other students use digital devices during class for non-class purposes?” (No distraction, a little distraction, more than a little distraction, big distraction, and very big distraction) (McCoy, 2016, p. 27).

Mindfulness

The Five Facet Mindfulness Questionnaire (Baer et al., 2006) is a 39-item scale, where participants respond to the items on a 5-point Likert Scale (where 1 = never or very rarely true, 5 = very often or always true), was used in the present study. The scale measures five elements of mindfulness: Observing items, describing items, acting with awareness, non-judging of inner experiences, and non-reactivity to inner experiences. Table 2 indicates a description of the scales as well as the number of items with each scale:

Table 2. Description of the scales used in the current study

Subscale Descriptions and Examples
Observing Items (8 items)
“One’s awareness of, and attention to, internal and external experience.”
(Newcombe & Weaver, 2016, p. 102)
When I’m walking, I deliberately notice the sensations of my body moving.
When I take a shower or bath, I stay alert to the sensations of water on my body.
I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
I pay attention to sensations, such as the wind in my hair or sun on my face.
I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
I notice the smells and aromas of things.
I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
I pay attention to how my emotions affect my thoughts and behavior.
Describing Items (8 items)
“Ability to recognize and label one’s inner experience with words.”
(Newcombe & Weaver, 2016, p. 102)
I’m good at finding words to describe my feelings.
I can easily put my beliefs, opinions, and expectations into words.
It’s hard for me to find the words to describe what I’m thinking.*
I have trouble thinking of the right words to express how I feel about things.*
When I have a sensation in my body, it’s difficult for me to describe it because I can’t find the right words.*
Even when I’m feeling terribly upset, I can find a way to put it into words.
My natural tendency is to put my experiences into words.
I can usually describe how I feel at the moment in considerable detail.
Acting with Awareness (8 items)
“Attention to present moment experience”
(Newcombe & Weaver, 2016, p. 102)
When I do things, my mind wanders off and I’m easily distracted.*
I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted.*
I am easily distracted.*
I find it difficult to stay focused on what’s happening in the present.*
It seems I am “running on automatic” without much awareness of what I’m doing.*
I rush through activities without being really attentive to them.*
I do jobs or tasks automatically without being aware of what I’m doing.*
I find myself doing things without paying attention.*
Non-Judging of Inner Experiences (8 items)
“Ability to take an accepting and non-evaluative approach to thoughts and feelings.”
(Newcombe & Weaver, 2016, p. 102)
I criticize myself for having irrational or inappropriate emotions.*
I tell myself I shouldn’t be feeling the way I’m feeling.*

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Table 2. Continued

I believe some of my thoughts are abnormal or bad and I shouldn't think that way.*
I make judgments about whether my thoughts are good or bad.*
I tell myself that I shouldn't be thinking the way I'm thinking.*
I think some of my emotions are bad or inappropriate and I shouldn't feel them.*
When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.*
I disapprove of myself when I have irrational ideas.*
Non-Reacting of Inner Experiences (7 items)
"Ability to allow thoughts and feelings to come and go, without being caught up in them."
(Newcombe and Weaver 2016, p. 102)
I perceive my feelings and emotions without having to react to them.
I watch my feelings without getting lost in them.
When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
In difficult situations, I can pause without immediately reacting.
When I have distressing thoughts or images, I feel calm soon after.
When I have distressing thoughts or images I am able just to notice them without reacting.
When I have distressing thoughts or images, I just notice them and let them go.

* Items reverse scored

Based on the scoring provided, higher scores indicate greater mindfulness. Scores on the five subscales can be combined to produce an overall mindfulness score (Gu et al., 2016). For the 5 scales, Goldberg et al. (2016) report that internal consistency reliability using Cronbach's α was adequate: for observing items ($\alpha = .80$), describing items ($\alpha = .92$), acting with awareness ($\alpha = .89$), non-judging of inner experiences ($\alpha = .89$), non-reacting of inner experiences ($\alpha = .79$), and for the total scores ($\alpha = .92$).

RESULTS

Digital Technology Usage and Studying

Descriptive and inferential statistics (ANOVA, Correlations) were conducted on the data. Data was analyzed using IBM SPSS Statistics for Windows, Version 25 (IBM Corp., Armonk, N.Y., USA).

Participants were asked if they had a digital device near them when studying (Table 3). The results indicated that 96.5% of students had a digital device near them when studying and 94.0% use a digital device to help them when studying.

Table 3. Digital device usage when studying by number (%)

	Yes	No
When you study, do you have a digital device near you?	192 (96.5)	7 (3.5)
When you study, do you use a digital device to help you?	187 (94.0)	12 (6.0)

When asked about how many hours a week they studied for their classes (Table 4), participants indicated that they studied an average of 6.76 hours per week ($SD = 7.31$), and of those hours 4.86 mean hours ($SD = 5.34$) were spent on study time using a digital device.

Table 4. Hours studying per week

	Mean Hours (SD)
How many hours do you study per week for your classes?	6.76 (7.31)
How many hours of your study time is spent using a digital device?	4.86 (5.34)

Digital Device Usage for Non-Classroom Purposes

Participants were asked to indicate how many times they had used a digital device in the classroom for non-classroom purposes per day (Table 5). A majority of participants used their phones 1 to 3 times for non-classroom related activities (55.3%) and 25.1% used it 4 to 10 times. Only 9.5% of participants indicated never using their digital device in the classroom for non-classroom purposes.

Table 5. Frequency of digital device usage in the classroom for non-classroom purposes

	Number (%)
Never	19 (9.5)
1 to 3 times	110 (55.3)
4 to 10 times	50 (25.1)
11 to 30 times	9 (4.5)
More than 30 times	7 (3.5)

Participants indicated that the biggest disadvantages to using a digital device in the classroom (Table 6) for non-class purposes included not paying attention (55.8%), missing the lecture (22.1%), and 11.1% indicated that it was a distraction to others.

Table 6. Disadvantages to using a digital device in the classroom for non-classroom purposes

	Number (%)
Not pay attention	111 (55.8)
Lose grade points	10 (5.1)
Miss the lecture	44 (22.1)
Distract others	22 (11.1)
Get called out by professor in class	8 (4.0)

When asked if the digital device they used in the classroom for non-classroom purposes (Table 7) was a personal distraction as well as a distraction to others, the results indicated that the digital device caused a little distraction to themselves (63.8%), while 11.1% said it was no distraction. Participants also indicated that when other students use digital devices for non-classroom purposes, it was no distraction (43.7%) and a little distraction (36.7%).

Table 7. Personal learning distraction and to other students using a digital device in the classroom for non-classroom purposes

	Personal Distraction	Distraction to Others
	Number (%)	
No distraction at all	22 (11.1)	87 (43.7)
A little distraction	127 (63.8)	73 (36.7)
More than a little distraction	29 (14.6)	24 (12.1)
A big distraction	11 (5.5)	10 (5.0)
A very big distraction	6 (3.0)	1 (0.5)

Research Question # 1: Purposes for using a Digital Device for Non-Classroom Purposes

Most participants indicated that the major purposes for using a digital device in the classroom for non-class purposes (Table 8) was to check the time on their phone (91.0%), to text someone (88.9%), to send an email (83.4%), to use social media (60.8%), to surf the internet (54.8%), and to play games (21.1%).

Table 8. Purposes for Using a Digital Device for Non-Classroom Purposes

	Number (%)
Send an email	166 (83.4)
Check time on the phone	181 (91.0)
Surf the internet	109 (54.8)
Text someone	177 (88.9)
Use social media	121 (60.8)
Play games	42 (21.1)

Data indicates multiple student responses.

The biggest reason for using their digital device in the classroom for non-classroom purposes (Table 9) was to fight boredom (39.2%), to stay connected (25.1%), and in case of emergency (14.1%). Some of the other reasons included using it for cases that require an immediate answer, to be productive, for organization (Google Calendar), for help over the in-class material, a medical condition that requires me to check, the class does not engage, and to complete work for other classes.

Table 9. Reasons for using a digital device for non-classroom purposes

	Number (%)
To stay connected with others	50 (25.1)
For entertainment purposes	16 (8.0)
To fight boredom in class	78 (39.2)
In case of an emergency	28 (14.1)
Other reasons	23 (11.6)

Data indicates multiple student responses.

Research Question # 2: Digital Distractions and Academic Performance

Correlations conducted between digital distractions and academic performance (Table 10) indicated that no statistically significant relationships were obtained. A negative (but not significant) relationship was obtained between personal digital distractions and academic performance ($r = -.123, p > .05$).

Table 10. Digital distractions and academic performance

	1	2	3
1. Academic Performance	-		
2. Personal Learning distraction when using a digital device for non-classroom purposes?	-.123	-	
3. Learning Distraction to others when using a digital device for non-classroom purposes	.023	.371**	-

** $p < .01$

Research Question # 3: Digital Distractions and Mindfulness

The results in Table 11 indicate that significant differences were obtained for personal learning distractions when using a digital device for non-classroom purposes only for acting with awareness, $F(4, 166) = 4.92; p < .01$; and non-judging of inner experiences, $F(4, 166) = 2.43; p < .01$. Participants who had fewer distractions tended to be more mindful, thereby paying greater attention to things in the moment (acting with awareness) as well as being able to take in and accept thoughts and feelings (non-judging of inner experiences).

Research Question # 4: Mindfulness and Academic Performance

Table 12 reports intercorrelations among academic performance (GPA) and the five subscales of the mindfulness scale. A significant positive relationship was obtained between academic performance and overall mindfulness ($r = .192, p < .01$) indicating that participants with higher academic performance tended to have overall greater levels of mindfulness. A significant relationship was also obtained between academic performance and non-reacting ($r = .159, p < .01$) indicating that students with higher

academic performance allowed their feelings and thoughts to come and go without being caught up with them (non-reacting of inner experiences). Observing items was positively and significantly correlated with describing items ($r = .480$) and non-reacting of inner experiences ($r = .338$) and was negatively correlated with acting with awareness ($r = -.187$) and non-judging of inner experiences ($r = -.265$). Describing items was positively and significantly correlated with non-reacting of inner experiences ($r = .294$), while negatively correlated with acting with awareness ($r = -.259$) and non-judging of inner experiences ($r = -.259$). Acting with awareness was positively and significantly correlated with non-judging of inner experiences ($r = .591$).

Table 11. ANOVA summary for digital distractions and mindfulness

How much of a learning distraction do you cause yourself when using a digital device in the classroom for non-classroom purposes?						
	No distraction	A little distraction	More than a little distraction	Big distraction	Very big distraction	F value
Mindfulness	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Observing items	27.48 (6.49)	25.39 (5.68)	27.12 (4.09)	26.75 (3.91)	28.40 (7.57)	1.20
Describing items	24.62 (3.80)	23.39 (2.91)	24.65 (2.93)	23.75 (2.49)	25.60 (4.82)	1.76
Acting with Awareness	28.48 (5.14)	26.94 (5.20)	24.04 (5.17)	20.50 (5.34)	24.40 (9.55)	4.92**
Non-Judging of Inner Experiences	29.05 (5.63)	27.52 (5.59)	26.46 (6.40)	21.75 (6.69)	27.00 (8.39)	2.43**
Non-Reacting of Inner Experiences	21.86 (3.66)	21.02 (4.18)	21.85 (3.87)	17.87 (3.75)	21.00 (6.63)	1.61
How much of a learning distraction is it to you when other students use digital devices in the classroom for non-classroom purposes?						
	No distraction	A little distraction	More than a little distraction	Big distraction	Very big distraction	F value
Mindfulness	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Observing items	25.68 (6.24)	26.19 (4.20)	27.05 (7.27)	26.43 (3.73)	-	.35
Describing items	23.71 (3.51)	23.81 (2.69)	24.00 (3.14)	24.71 (2.21)	-	.24
Acting with Awareness	27.45 (5.47)	25.58 (5.63)	24.90 (5.56)	24.71 (5.28)	-	2.07
Non-Judging of Inner Experiences	27.61 (5.92)	27.00 (5.82)	27.05 (6.45)	26.43 (7.27)	-	.18
Non-Reacting of Inner Experiences	21.27 (4.32)	20.89 (4.02)	21.57 (4.55)	19.86 (2.79)	-	.38

** $p < .01$

Table 12. Intercorrelations among academic performance and the five subscales of the five facet mindfulness questionnaire

	1	2	3	4	5	6	7
1. Academic Performance (GPA)	-						
2. Observing Items	.104	-					
3. Describing Items	.012	.480**	-				
4. Acting with Awareness	.142	-.187**	-.259**	-			
5. Non-Judging of Inner Experiences	.073	-.265**	-.259**	.591**	-		
6. Non-Reacting of Inner Experiences	.159*	.338**	.294**	.099	.108	-	
7. Total mindfulness	.192*	.454**	.311**	.595**	.576**	.633**	-

* $p < .05$ ** $p < .01$

DISCUSSION

The findings of this empirical study examining the relationship between digital distractions, mindfulness, and academic performance are mixed. Over 94% of participants in the study had a digital device near them while studying and used a digital device to help them when they study. This finding is not surprising considering that most college students (94%) indicate that they would like to use their cellphone in class for academic related purposes, while 75% believe that using personal devices improves learning and retention of information (Kelly, 2017).

In the present study, 55.3% of participants used a digital device 1 to 3 times in the classroom and 25.1% used it 4 to 10 times for non-classroom related purposes. These results are similar to those obtained by McCoy (2016), who found that 34.42% of the students used a digital device 1 to 3 times and 28.49% used it 4 to 10 times in the classroom. Students who use a digital device during class may have their attention taken away from class related activities like projects and group discussions and may lose focus on the class causing others to miss out on learning, as well as causing distractions (Seemiller, 2017).

The top two disadvantages to using a digital device in the classroom included not paying attention and missing the lecture. Similar results were obtained by McCoy (2016), with 89.06% of students indicating not paying attention and 80.51% of students indicating missing the lecture as the biggest disadvantages of using a digital device in the classroom. Goundar (2014) found that 53% of students strongly agreed/agreed that laptops and mobile devices in the classroom “distract me from paying full attention in the classroom”, while only 24% disagreed/strongly disagreed with the statement (Goundar, 2014, p. 221).

Participants indicated that using a digital device in the classroom was a little distraction personally and was no distraction when other students used it. Similar results were obtained by McCoy (2016) who found that 57.57% of the students indicated it was a little distraction personally and 42.03% and 39.34% indicated it was a little distraction and no distraction to other students. The results of the present study contradict those obtained by Attia et al., (2017) who found that external distractions like use/ringing of cell phones (67%), playing video games (59%), students texting (52%), and email/surfing (42%) were extremely or minorly distracting. Additionally, 21% of the students indicated that the distractions affect

their learning. The top three distracting student activities in class included mobile phones ringing (23%), talking on mobile phones (19%), and text messaging (15%).

The biggest purpose for using a digital device in the classroom for non-classroom purposes included checking the time, texting someone, and sending an email. In contrast, McCoy (2016) found that the top three purposes for using a digital device for non-classroom purposes included texting (86.65%), emailing (76.18%) and checking the time (74.86%). In a study examining cell phone and text messaging in the classroom with 269 undergraduate college students, Tindell & Bohlander (2012) found that 14.2% of students had texted during an exam and 45.7% of students had seen another student texting during an exam. Students also indicated that sending a text results in a loss of attention and poor grades (31.5%) and sending a text message causes a distraction to those sitting nearby (24.7%). Additionally, Bjornsen & Archer (2015) state that ...”the low social media use group consistently scored higher on in-class tests than did the high social media use group” (p. 331).

The biggest reason for using a digital device for non-classroom purposes was to fight boredom and to stay connected. Similar results were obtained by McCoy (2016) who found that students used a digital device for non-classroom purposes to stay connected (63.05%), to fight boredom (62.90%), and for entertainment (46.76%).

No significant correlations were obtained between digital distractions and academic performance. This finding contradicts those obtained by Duncan et al. (2012) who found a statistically significant difference in final grades between students who were phone users and nonusers. They state that “if students miss some instruction while engaging in digital devices, they may end up earning lower grades overall” (Duncan et al., 2012, p. 4).

A significant positive relationship was obtained between academic performance and overall mindfulness, indicating that participants with higher academic performance tended to be more mindful. In a study with 26 first-year college students who were enrolled in a voluntary mindfulness-based wellness program called Just BREATHE (JB), Mahfouz et al., (2018) found the program helped them improve time management and organization, helped them become more focused and attentive, improved emotional awareness, provided them with coping strategies to help them deal with stress, increased awareness of food choices and habits, developed self-compassion, and enhanced wellbeing. Similar results were obtained by Kerrigan et al. (2017) in a study with 13 undergraduate college students who participated in a mindfulness-based stress reduction (MBSR) program. The results indicated that the program improved mood, reduced stress, increased productivity, and helped with academic focus.

Recommendations for Future Research and Classroom Teaching

1. It is impossible for professors to completely stop students from using digital devices in the classroom for non-classroom purposes, despite having classroom policies that are aimed at stopping it. If professors use innovative teaching techniques where digital devices can be incorporated into the lecture, then students may not be distracted by digital technology, they may pay more attention to the material, allow for better use of time, and have greater recall and enhanced academic performance (Eduljee & Girlando, 2016).
2. Further research should be aimed at examining the level of engagement with regard to digital devices to determine how distracted students are from what is happening in the classroom (Seemiller, 2017, p. 224).

3. Encourage students to put away digital devices both inside and outside the classroom and focus on strategies that can help with self-regulation and increasing attentiveness to on-task activities.
4. Explore professors' use of mindfulness techniques intended to reduce stress and/or anxiety and the resulting impact on student performance on quizzes and exams. Bellinger et al. (2015) concluded that students with mindfulness skills showed improved task attention and were able to perform better in testing situations thereby positively affecting academic performance. In addition, they found that "Mindfulness appears to reduce anxious thoughts that otherwise consume working memory resources" (Bellinger et al., 2015, p. 130).

CONCLUSION

The results of this study provide insights into the use of digital devices, mindfulness, and academic performance with undergraduate college students. This study is not without its limitations. The gender mix in the sample reflects the demographics of a college with a greater proportion of female students. Additionally, academic major was not examined in the present study. Future research should be conducted with a larger sample size to examine the relationship between gender, class standing, types of digital distractions, mindfulness, and other variables like academic major to determine if there are differences as they relate to academic performance.

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KEY TERMS AND DEFINITIONS

Academic Performance: Student achievement in the classroom that is measured through grade point average (GPA).

College Students: A student who is enrolled in a college or university.

Digital Device Usage: Use of a digital device (e.g., phone, iPad, or laptop) in the classroom.

Digital Distractions: Use of a digital device in a classroom for tasks that are unrelated to classroom work.

Five Facet Mindfulness Questionnaire: Standardized instrument that measures five aspects of mindfulness: observing items, describing items, acting with awareness, non-judging of inner experiences, and non-reactivity to inner experiences.

Digital Distractions, Mindfulness, and Academic Performance With Undergraduate College Students

Learning Distractions: Use of a digital device that distracts from learning at hand.

Mindfulness: Giving a task your attention and being fully aware of what we are doing or not doing at the present moment.

Non-Classroom Purposes: Using a digital device in the classroom for other purposes like email, surfing the web, and checking time.

Chapter 21

Mindfulness in Education: The Need of the Hour

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ABSTRACT

Complexity of the modern era has led to increased difficulties of people, especially the youth. Living in the current stressful, uncertain, and highly stimulating technological era is not very easy for the young ones. Hence, there is an urgency to teach skills of stress management and resilience among children through mindfulness-based practices. This change in the present scenario has attracted the attention and interest of psychologists and educationists to the practice of mindfulness-based interventions with children and adolescents for enhancing their overall well-being. The last few years have observed a growing number of research and applications of mindfulness in educational settings because of its effectiveness and the urgent need of prevention and interventions of the youths' problems. In this chapter, the author has discussed research supporting the idea of mindfulness in education for both students and teachers and its usage to increase the academic performance, enhance overall wellbeing, and reduce the stress level of youth.

INTRODUCTION

Today's generation is much more stressed, distracted, and vulnerable to the negative influences of the fast-paced modern world than the previous generation. There are number of research indicating to a very higher level of stress among children and adolescents (Barnes et al., 2003; Fisher, 2006; Mendelson et al., 2010). From numerous researches, it is also very apparent that the modern youth and educators essentially need to develop new skills and understanding to deal with such situation. Technology leaves a very strong impact on children and adolescents in terms of images and sounds because of the continuous over exposure. This continuous surplus of exposure leads to overburdening and challenging children's thinking capacity as well as becoming an obstacle to their learning (Fisher, 2006). These environmental factors are considered to be the cause to a series of undesirable and damaging effects in children and

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adolescents such as socio-emotional problems, behavioural difficulties, and decreased academic performance (Mendelson et al., 2010).

Kabat-Zinn (Mindfulness in Education, 2013) rightly says, “We do not know what specific knowledge our children are going to need ten or twenty years from now, because the world, and their work when they come to it, will be so different from ours. What we do know, is that they will need to know how to pay attention, how to focus and concentrate, how to listen and learn, and how to be in wise relationship with themselves – including their thoughts and emotions - and with others”. The concern and worries are very much evident from this statement which makes it an urgency to plan on the preventions and interventions. Hence planning to educate the youth and developing the skills of focused attention is very important. Researchers, educationists, and academicians are focusing on the research which can integrate mindfulness practices in education for enhancing the overall well-being among children and adolescents as well as teachers. Mindfulness can help them to develop skills of resilience, flexibility, concentration, calmness, empathy, and compassion which are important to deal with the fast-paced modern world’s complexity in an effective and efficient way. This can also help them to learn to live harmoniously with nature and people in their surroundings, make them responsible global citizens and positively contributing members of the society. The concept of mindfulness is considered abstract and complex which needs detailed understanding. This will be defined and deliberated in the subsequent discussion.

UNDERSTANDING MINDFULNESS

The word “mindfulness” has its origin into word ‘sati’ of Pali language, which translates it into having awareness, paying attention, and being able to remember (Bodhi, 2000). The eastern meditative practices have a strong notion of mindfulness particularly in Buddhism which is used as one of the essential meditative technique. Mindfulness training is given to increase the individual’s awareness, be attentive to present moment and to observe his thoughts and experiences without reacting or being judgemental about them.

There are number of definitions given by different researchers keeping the base of mindfulness described in eastern meditative practices. Some of them are contemplated here. Mindfulness is defined as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994, p. 4). This definition has given the importance to three aspects of mindfulness which are intention, attention, and attitude (Shapiro et al., 2006). It is also reiterated as “nonjudgmental observation of the ongoing stream of internal and external stimuli as they arise” (Baer, 2003, p. 125), as “moment-by-moment awareness” (Germer et al., 2005, p. 6) or as “a state of psychological freedom that occurs when attention remains quiet and limber, without attachment to any particular point of view” (Martin, 1997, p. 291). Mindfulness comprises of two components: self-regulating attention and adopting an open and accepting one’s experiences (Bishop et al., 2004), being conscious to one’s present experience (Brown & Ryan, 2003; Shapiro et al., 2006).

In simple words, mindfulness is paying attention to things and accepting as they are and not how we expect them to be. As Shapiro and Carlson (2006) note, the key feature of mindfulness is to be aware and deliberately giving attention in an open, gentle, and judicious way as it helps in recognising one’s thoughts and emotions and make an individual open to change (Dreyfus, 2011). After looking at all these definitions, it establishes that there are some common components of mindfulness which are: purposeful, give concentrated attention, focused on ‘here and now’ of the human experience without any judgment.

Mindfulness can be developed through different methods of training as it is an important element of human awareness and a mental capability.

In understanding the meaning of mindfulness, the following words are important and can be explained as follows:

- **Paying Attention:** Mindfulness means paying attention or being aware about self and the surrounding.
- **Present Moment:** The mind either wanders in the past or future, missing out on the present or 'here and now' moment. It means being mindful and experience the present moment.
- **Purposeful:** There is nothing in the nature without any purpose. Purpose gives motivation and determination to achieve the goal.
- **Non-Reactive:** Generally, human beings come in the automatic mode of behaving or rather react based on the past experiences without thinking. Therefore, being mindful, helps an individual to respond to people or situations rather than react. There is a difference between reaction and response, a reaction is an automatic process and does not give any choice while a response is a considerate and well reflected action.
- **Non-Judgmental:** Judgments are not bad, they help people in decision making, but the problem arises when people quickly judge or evaluate everything worthy or worthless, black, and white or good and bad. Mindfulness helps people view things and people as they are as of now rather than evaluating them based on their previous experiences which can be biased.
- **Being Open:** means being kind, compassionate, warm, and friendly to the present experience and people or self.

Awareness of being open, responding and accepting helps an individual in cognitive, emotional, and behavioural regulation as it empowers the person to “respond reflectively rather than react reflexively” (Chiesa et al., 2011). There is always an internal dialogue or talk or conversation goes on in the mind, therefore mindfulness is a kind of listening to this internal dialogue without getting entangled with it or more objectively which is rightly put across by Daniel Goleman, “Total, positive absorption shuts off the inner voice, that running dialogue with ourselves that goes on even during our quiet moments” (Goleman, 2013, p. 57). So once this inner voice or dialogue stops, it becomes possible to attend and be present in the present and act purposefully. Thus, mindfulness is basically a mental exercise or training of the brain to live in the present moment without being a pendulum and getting into the past or future.

Components or Attributes of Mindfulness

The three core elements of mindfulness are intention, attention, and attitude which are interrelated and cannot be seen as distinct stages. These components make a continuous cyclic process and happen simultaneously (Shapiro et al., 2006). Let us understand these in detail:

1. **Intention:** Intention of the person sets the stage for what is coming and how to see it. According to Kabat-Zinn (1990), “intention that set the stage for the action”. This is also supported by the research of Shapiro (1982) where he explored the relationship between an individuals' intention and their regularity of meditational practice and it was found out that practitioners' intentions matched with their goals which they chose for themselves, such as regulating self and managing stress. There

are also some other research which support that intentions can be developed and changed with regular practice over a period of time of meditational practitioners. This intention helps people to transform, foster mindfulness, and develops abilities of being aware, insightful, and kind.

2. **Attention:** Being attentive helps a person to be in present moment or being aware. Mindfulness practice helps to calm down and see things clearly. In reference to mindfulness, bringing attention to present and observe the inner and outer experience (Shapiro et al., 2006). It brings the clarity of perception by observing and understanding about the self and others which is echoed in Christopher Germer saying, “An unstable mind is like an unstable camera; we get a fuzzy picture.” According to Helminski (1992) we are present at whatever we pay attention to small or big, internal, or external. Regulating ourselves to pay attention develops the cognitive skills involved vigilance or sustained attention (Posner & Rothbart, 1992; Shapiro et al., 2006), shifting, or the ability to change, the concentration (Posner, 1980), and cognitive inhibition, the ability to constrain disturbing mental actions and physical sensations (Williams et al., 1996).
3. **Attitude:** The way the things are perceived will decide the positive or negative direction. Mindfulness helps to develop the attitude of acceptance, respect, trust, patience, curiosity, care, compassion, openness, kindness, forgiveness, gratitude, etc. Similarly, how do people attend their environment is also very important what abilities individual carries to the act of giving attention are very important (Brach, 2003; Kabat- Zinn, 2003; Kornfield, 2009). When the attention is paid fully in the present moment by mindfulness practice, it may bring a more conscious commitment about the way they think and feel such as compassion, inquisitiveness, and sincerity to their consciousness without being disapproving. If individuals practice these essential attributes of emotions or being human, these will benefit people to accept their pleasant or unpleasant experiences rather than persistently attempting only enjoyable ones and to get away with unhappy, painful, or unpleasant experiences (Shapiro et al., 2006).

Researchers have found out the fundamental aspects of mindfulness (three Cs) which are as follows:

- **Connection** – Forming the link or connection between your mind, breath, and body. This connection can be formed by training the mind to relax and concentrate, by focusing on the breath and body.
- **Curiosity** – It is one of the important criteria to learn anything as it is one of the central need for motivation. It is to foster interest in experience and a readiness to examine the experience.
- **Care** – Caring about self, being kind and compassionate to self by developing an attitude of being non-judgemental or being non-evaluative towards self.

By utilising and practicing on these essential aspects, individuals can have mastery over 3 M (Mind, Matter and Moment).

MINDFULNESS AS A MEDICINE TO POOR MENTAL HEALTH

Regular practice of mindfulness can be an important means to cultivate adaptive coping strategies and the ability to bounce back from the adverse situations among people. Mindfulness meditational practices are among the most extensively studied and used as a healing tool for individuals with physical and mental

disorders especially which are related with stress. Over the last three decades a substantial amount of research literature has recognised the value of people coping with varied problems (Shapiro et al., 2002; Walsh & Shapiro, 2006). Numerous current studies found that mindfulness is very useful practice in cultivating positive emotions, improving well-being, and reducing anxiety level, pain, substance abuse and depression which are all have origins to stress (Baer, 2003; Hofmann et al., 2010). Let us see the role of mindfulness in improving mental health:

- It helps in calming the mind and bringing awareness to the present thoughts or in present situation without attaching any evaluation, good or bad. It helps in paying attention to and shift the focus from “ruminative thinking” (means to think persistently on the same thought or subject) which leads to have continuous low moods and get stuck in the vicious cycle of negative thought process.
- It helps an individual to assign labels to thoughts and to disengage from feelings. It also helps a person to observe his thoughts and feelings and realize that – he is not that thought or emotion.
- It helps a person to differentiate between thoughts and facts.
- It brings the awareness to the present moment without judging or evaluating it.
- It cultivates compassion for self and others.

RESEARCH SUPPORTING THE IDEA OF MINDFULNESS IN EDUCATION

The interest in using the mindful-based approaches has been significant for the therapeutic practices in clinical setting. However, the recent time has seen the tremendous boom in research which are studying the concept of mindfulness and its benefits for well-being in educational, non-clinical settings and different populations such as children, adolescents, and adults (Brown & Ryan, 2003, 2004; Wallace, 2005, 2006; Wallace and Shapiro, 2006; Walsh & Shapiro, 2006). Because of the change in the present scenario, the attention and interest of psychologists and educationists is rising in the practice of mindfulness-based interventions with children and adolescents for their overall well-being. Last few decades have witnessed a large number of research and applications of mindfulness in educational settings because living in present stressful and highly stimulating technological era, is not very easy for the young ones.

Today’s technologically focused generation is perpetually exposed to information overload, images and sounds through their television set in the drawing room, computer, mobile, advertisement through radio or movies. This perpetual bombardment of information is affecting children’s capacity to think and learn (Fisher, 2006). This environmental pressure to excess information and perform is becoming the cause of immense stress and can become the risk factor for a variety of negative consequences in children and adolescents such as difficulties in social-emotional areas, behaviour related problems, and low academic achievement (Mendelson et al., 2010). Hence, there is an urgent need to impart skills of stress management and develop resilience among children through mindfulness-based practices which seems to be one helpful alternative.

Research providing the evidence that training in mindfulness is effective in reducing stress and developing self-confidence, cultivating good interpersonal relationships, building attention, optimism, and high self-esteem (Fisher, 2006; Schonert-Reichl & Lawlor, 2010). Mindfulness helps to develop “feelings of control, have better freedom of action, and less burnout” (Langer, 1989, p. 202), in children it helps to improve self-regulation, mood and develop social-emotional skills which in turn manage stress (Mendelson et al., 2010). By learning and taking from the research of mindfulness from previous

generations, future generations can learn a great deal of understanding about mindfulness-based practices (Kabat-Zinn, 2003). In line with this, there are studies which highlights the benefits of mindfulness: “We can sharpen our focus on the present, enabling us to feel our feet as we travel the path of our lives. We engage with ourselves and with others, making a more authentic connection, with more reflection and consideration” (Siegel, 2007, p. 15). Mindfulness can be used to improve cognitive and academic performance, to cope with academic stress, and help in developing individuals holistically (Shapiro et al., 2011). Studies also established that students who joined in a mindfulness-based education program experienced the higher amount of optimism and socially proficient behaviors (Schonert-Reichl & Lawlor, 2010). Hence, it can be concluded that introducing mindfulness practices or interventions in educational settings especially schools (the early we begin, the better it is) will empower children and adolescents with valuable skills which will help them to live their life effectively and efficiently.

Children are, by nature, more open and curious to learn, and this innate openness and readiness should be captured as early as possible. In childhood, they are more receptive and easier to teach mindfulness-based practices; more so, school is a place where they spend substantial amount of their time. This may help teachers to prepare them better for present and future modern world’s problems or adversities. Consequently, schools are an ideal place to introduce and teach mindfulness-based practices. Mindfulness practices help students to develop self-awareness, improve impulse control, and reduce emotional reactivity to stimulating situations (Thompson & Gauntlett-Gilbert, 2008). With regular practice of mindfulness, the density of grey matter in areas of the brain associated with learning increases substantially, higher self-awareness, increased emotional intelligence, better interoception and compassion are found (Hölzel et al., 2011; Lazar et al., 2005). Cortical thickening is also correlated with regular practice and experience (Lazar et al., 2005).

Mindfulness-in-education has seen growing interest and witnessed the fast momentum in the last decade or so and hence number of the programs developed worldwide for various applications in educational context. There are number of school-based mindfulness programs introduced for children and adolescents in grades K through 12. For example, Mind-Up, Mindful Schools, Inner Resilience, and Learning to Breathe. UK government’s recent announcement about public funding to a nationwide initiative for mindfulness-in-education (Sharman, 2017) boosts mindfulness from a peripheral and a side-tracked program to mainstream status in education. All these and many more research, give the evidence that mindful practices can be an antidote to increasing poor mental health among children.

Research suggests that a developing a better sense of trust, forming good relationship with peers, and increasing the ability to cope with stressful events can also be achieved by practicing mindfulness regularly. The reason for achieving all this could be developing the ability to observe thoughts and emotions without putting any judgments and ability to control the impulsivity (Kabat-Zinn, 1994). It also reiterated in another study which shows that mindfulness-based practices benefit children to manage stress by improving self-regulation, mood, and developing social emotional skills (Mendelson et al., 2010). The results of the mindfulness-based interventions demonstrated a substantial growth in personal development and well-being of the individual. The research reviewed about mindfulness in this chapter recommends that mindfulness practice can be an effective alternative to aspects of personality building that shapes well-adjusted children and adolescents. This also leads to better prosocial and compassionate behaviour, mental health, and interpersonal relationships.

Although, the research studies are in budding stage and require further rigorous research, yet school-based mindfulness programs for children are becoming quite common, widespread and some empirical research are demonstrating strong evidence for the benefits of mindfulness.

USING MINDFULNESS TO IMPROVE THE ACADEMIC PERFORMANCE

Past few decades have witnessed a substantial amount of increase attention in research and practice of mindfulness because stress level of students is rising at very high levels, leading to anxiety, depression, and low-self-esteem, which is adversely impacting academic performance (Rempel, 2012). In recent times, researchers and educationists are taking keen interest to use mindfulness techniques to improve the academic performance of the students as number of research are showing correlations with numerous school-related attitudes and behaviors. Such as overall well-being, academic productivity, classroom independence, accomplishment of individual goals (Lawlor et al., 2014), executive functions (Parker et al., 2014), social skills, quality of life, academic proficiency, (Greco et al., 2011), global executive regulation, behaviour control and metacognition, (Flook et al., 2010). Extreme stress harms the developing brain, aggregate children's susceptibility to lasting behaviour, learning, and mental health difficulties (Meiklejohn et al., 2012). Research is continuously providing evidence in support of these school related variables which are directly or indirectly related with the improvement in academic performance. This potential correlation is imperative to explore more.

Recent research investigated effect of mindfulness intervention on academic scores and there was significant improvement found in reading and science grades (Bakosh et al., 2016). Children, ages of 7-11 of child development stage of Piaget, start cognitive operations and logical thinking about events and objects, therefore mindfulness interventions can be used with children where they can reflect and report on questions that assess mindfulness (Shaffer, 2002). During early stages of childhood, children can be engaged in mindful practices because mindfulness improves through practice. Though children may not yet have developed the ability to reflect the processes of mindfulness. As the child grows through other stages of cognitive development, they would likely to develop the ability to think and reflect on their subjective experiences related to mindfulness (Gugino-Sullivan, 2019). Contemporary research studies have shown that engaging primary school students (grades 1 to 3) in sitting, moving, and body-scanning mindfulness practices besides relaxation exercises can improve selective attention, lessen the experience of test anxiety, and build up social skills (Napoli et al., 2005). Research on similar studies show that school-based mindfulness programs improve students' emotional well-being and improve their academic performance (Meiklejohn et al., 2012; Rempel, 2012; Weare, 2013).

TEACHING MINDFULNESS PRACTICE TO STUDENTS

Lately, there has been an increased momentum in research related to mindfulness interventions in the school setting, and to evaluate its impact and outcomes. Researchers in the field has gathered enough evidence on the effectiveness of mindfulness practice in the schools and is considered an ideal setting for teaching, learning, and practicing brief mindfulness techniques (Dariotis et. al., 2017; Klingbeil et al., 2017; Semple et al., 2017). As schools are having an easy access to a large audience (students and teachers both can learn and practice together), providing physical and psychological safe place, as well other skills which are enhanced by mindfulness techniques are more relevant and expected from the students in school scenario. Therefore, it suggests that schools can be the optimal environment to teach, learn and practice mindfulness interventions which can have the impact on students and teachers as well. There are numerous ways in which the skills of mindfulness can be practiced; however, there can be some common theme and directions to practice mindfulness. With children, it can start with asking them to

pay attention and observe their breathing focusing on such simple behaviour, is a common approach for training skills of mindfulness (Baer, 2011; Baer et al., 2004; Segal et al., 2002).

MINDFULNESS: ENHANCING TEACHERS' EFFECTIVENESS IN SCHOOL

Teachers' role in today's world has become many folds. It is beyond just delivering the course material, teachers are also supposed to be responsible for creating a nurturing learning environment, respond to students diverse needs, be a guide parent, be understanding and supportive colleagues, manage the demands of correcting the notebooks, assigning homework, evaluation, maintaining records, mentor students having conflicts with peers, be a role model, show a commendable emotion regulation, manage classroom and deal with disruptive behaviour; the problem is not of playing so many roles, but of providing teachers training or resources for any of them (Jennings, 2009).

There are many researches which show that despite the significance of sustained and focused attention in learning, educators seldom impart how to achieve this in most educational settings (Shapiro et al., 2011) because they are hardly trained for that.

A major part of success of any program in school depends on how well the teachers are trained. For instances, during air-travel, it is announced that to help others in case of emergency put your oxygen mask first. It is very important to train teachers if they are going to teach mindfulness to students. They should have a right attitude, motivation and personal experience of mindfulness and skills to deliver it to students.

It is more important as teachers are the role model of students, students learn from observing their teachers and more likely to give importance, adopt and model behaviour of teachers. There are research going on to see the effect of teachers' own mindfulness practice on their mental and physical health as well as their general teaching quality. Research study exhibits that outcomes of the mindfulness interventions are more effective if the teachers are knowledgeable and experienced in mindfulness practice (Burke, 2010). Research findings suggest that dealing with internal thoughts and observing emotions without being judgmental, makes teachers start to "drift away with" their consistent stressors, leading to multiplied benefits (Jennings, 2015; Whitehead, 2011) including students experiencing less stress (Engert et al., 2014).

Research suggests that a regular, personal, training of teachers in mindfulness-based practice should be conducted to bring the genuineness and power to respond to the queries of students (Kabat-Zinn, 2003; Semple & Lee, 2008) as it will not bring the authenticity if one teaches mindfulness but does not practice it. Practicing mindfulness is important for teachers as it supports intentionality, since "being present allows us to recognize these 'teachable moments' and take benefit of them to improve learning and see the bigger picture" (Kessler, 2001, p. 124).

INCULCATING MINDFULNESS AMONG EDUCATORS AND STUDENTS

Parents, educationists, professionals working in the field of mental health and child development and others are more and more concerned about the all-inclusive development of the child. Educationists and schools have shifted the focus on developing the social-emotional development of the children, rather than just focusing on academic achievements. Research evidence have supported that mindfulness-based

practices helps children and adolescents to develop good self-regulation, empathy, compassion for self and others, creativity, altruistic behaviour, interpersonal relationships, etc. which makes them into a responsible and aware citizens and help them throughout their lives.

Without any doubt, today's children face much more stress than their predecessors. 21st centuries youth are facing number of stressors such as collapse of joint family system or poor relationships, lack of social support in terms of friends and/or family, cut throat competition in education and at work, working parents, parental divorce, domestic violence, migration to cities/other places, death of a loved one, and suicide (Parker & Roy, 2001). There are studies which also points to rise in undesirable school behaviours which could be due to family breakdown, too much exposure to violence in mass media and overload of information, also some social evils like poverty which may be the probable reasons for high level of anxiety and psycho-social stress, increased anger and violence among children and youth (Barnes et al., 2003).

Due to high level and constant experience of stress, there is a greater risk to develop depression, and show a lesser amount of positive response to treatment and poor prognosis (Parker & Roy, 2001). Stressful life events show numerous negative effects on physiological and psychological functioning; therefore, it increases the significance of finding an effective approach to cope with these. Napoli et al. (2005, p. 105) state, "Research indicates that incorporating stress reduction programs into the school curriculum is associated with improvement of academic performance, self-esteem, mood, concentration and behaviour problems". This is also supported by research which suggests that mindfulness-based practice improves the ability to endure stress among children (Shapiro et al., 2011). More and more research is providing evidence for the practice of mindfulness-based interventions to reduce mental health issues, like anxiety and depression, and induce psychological well-being (Baer, 2003; Beauchemin et al., 2008; Brown & Ryan, 2003; Evans et al., 2008; Lilly & Hedlund, 2010; Smith & Womack, 1987).

Researchers states that for a long time, educational practitioners, philosophers, and policy creators have criticized the mindlessness of education system and schools, their predisposition to suppress imagination, inquisitiveness, and passion while fostering passivity and shallow learning (Ritchhart & Perkins, 2000). "In opposite to mindlessness, mindfulness is a facilitative state of mind that encourages increased creativity, flexibility, use of information, as well as retention of information" (Ritchhart & Perkins, 2000). The school setting has the greater potential to use and practice mindfulness and bring the positive change in physiological and psychological health of students, not only this, but it also has the potential to transform students learning in a significant way and make it more useful and for lifelong. It is suggested in a review of the recent research on using mindfulness-based approaches with children and youth that these were acceptable and possible, and no studies conveyed any detrimental effects (Burke, 2010). Mindfulness meditation was applied in schools to decrease test anxiety and increase field independence (Linden, 1973). Though this preliminary research has displayed the encouraging result, yet even after a long gap of four decades, schools are not implementing this beneficial approach to deal with modern days' complexities.

It was found that individuals practicing mindfulness improve their attention which helps them to enjoy the task at hand and enhanced memory, these are also helpful for students (Langer & Moldoveanu, 2000). It also supported mindful learning, "that not only should learning be fun on its own terms, but that learning or gain that is not fun is mindless" (Langer, 1993, p. 43). It has been observed that teachers and students have a direct effect on one another and are associates in learning in schools where they teach mindfulness-based strategies. This was echoed by the similar study which shows reduction in stress responses like rumination, invasive thoughts, and emotional arousal after using the mindfulness-based

approaches which were acceptable to students and teachers as well (Mendelson et al., 2010). The benefits of teaching mindfulness in school were also reiterated by another research. It says that this increases the creativity, cognitive flexibility, and improved use of memory for retention of classroom teachings (Napoli et al., 2005). To bring out the maximum benefits of mindfulness for children and to ensure acceptance of the program among students, teachers, parents, administrators, in the school system, it is very important to apprise, instruct and train all the stakeholders in mindfulness practices (Saltzman & Goldin, 2008).

THE ROAD FOR MINDFULNESS IN EDUCATION: MAKING IT AS A UNIVERSAL PROGRAM

It is a high time to realise the importance of implementing the mindfulness programme in the education system. Without any doubt, mindfulness can be considered as a common prevention program since it focuses on widespread susceptibilities in children and youth rather than specific difficulties (Bögels et al., 2008). A whole school approach is considered the best to implement the universal mindfulness program. As this would help in removing the stigma and label than any other targeted program where dragging students, segregating them increase the problems rather than solving it. These universal programs can also be very cost-effective way to implement school-based programs which are preventive rather than corrective (Farrell & Barrett, 2007). This intervention is strength-based which focuses on building up the strengths of the child rather than one focused on pathology and deal only with the problems.

It is recommended that mindfulness practices can be combined with the physical education course and can be implemented easily to teach children different ways to deal with stress and pay attention, from the beginning of their school life (Napoli et al., 2005). As it may indirectly help those children and parents who will certainly not seek clinical help for emotional issues due to fear of stigma or lack of awareness. The high prevalence rate of mental health issues like anxiety, depression, and other disorders makes it very important to consider this convenient cost-effective alternative method of prevention to intervention by executing universal prevention programs in schools to reach out to all the children and other stakeholders. This is supported by the research study where universal prevention program was used in preventing anxiety and depression in school-age children and also claimed to present a positive approach to social-emotional learning and augments the assets of the children (Farrell & Barrett, 2007).

The positive benefits of a mindfulness program are that it covers a wider level and concentrates on building capacity rather than focusing on symptomology or disorders of children and youth (Mendelson et al., 2010) and with mindfulness “we are planting the seeds of sustainable success” (Edwards, 2015). During training of students in mindfulness techniques, it is possible to do the reflection at each level that is student, the classroom, and the school. The universal prevention program found to be less intimidating than a treatment sitting because here the child need not to re-experience distressing or painful experiences. Here, the teacher starts it as a group intervention which may be beneficial to everyone and help them learn to deal life challenges and feel good about themselves (Coholic et al., 2009) so it works more like a group therapy.

No doubt that mindfulness-based practices show great potential as a universal school-based approach and seems to be an ideal approach to execute, the research literature show an inadequate backing for universal action programs. It was found in a reviewed treatment programs for dealing with depression among adolescent that the benefits were not sustained at follow-up in universal prevention/intervention programs which were implemented in the school (Hayes et al., 2010). Although some studies show that

taking standard yoga and meditation practices in high and even middle schools seems to have encouraging results for students (Britton et al., 2010; Broderick et al., 2010; Mendelson et al., 2010) and also there is little agreement in literature getting meditation practices to very young children. The research is still at the premature stage and is confronted by the question of age-appropriate practices (Burke, 2010; Thompson & Gauntlett-Gilbert, 2008).

CHALLENGES IN IMPLEMENTING THE MINDFULNESS PROGRAM AT SCHOOL

Implementation is an important aspect of any plan or training. But what do we mean by ‘implementation’? Implementation is defined as, “the ways a programme is put into practice and delivered to participants. In other words, implementation refers to what a programme looks like in reality compared with what a programme is conceived to be in theory” (Durlak, 2016, p. 334).

Implementing mindfulness in educational settings especially in schools poses many challenges to teachers. There is a constant pressure to cover the syllabus, maintain records, notebook checking, other kind of curricular and co-curricular activities, limited resources, and time. The pressure to perform and bring the results is constantly putting the burden on schools, teachers, and students. Thus, to implement any program, it is required to have sufficient resources in terms of time within school curriculum, appropriate physical space (Meiklejohn et al., 2012), training of teachers, perception or mind-set of schools, teachers, parents, religious inferences related with mindfulness, etc. all act as a barriers to school-based implementation. Religious connotation is one of the key reasons for parental resistance (Meiklejohn et al., 2012) to conduct mindfulness program effectively and efficiently. Lack of standard curriculum on mindfulness is also a big challenge.

Mindfulness interventions need consistent practice and do not bring immediate results, which can be a deterrent especially in the result-oriented world of education. Until unless, mindfulness becomes as important and regular as physical exercise and studies in schools, it will be difficult to develop attitude and motivation to implement it. Lack of knowledge and interest, and trained manpower will result in resistance, apprehension and weakening of the implementation of mindfulness program.

FUTURE RESEARCH DIRECTIONS

Research appraised in this chapter suggest that there is a growing evidence for incorporating mindfulness-based approaches into learning curriculums and the school setting for children and adolescents. Although the number of research dedicated to mindfulness with children and adolescents is escalating; yet there is miniscule number devoted to the field of education precisely. Further research to see the effects of mindfulness for children and adolescents and how to integrate it in the existing curriculums without burdening the system is needed, also to rule out the benefits of the mindfulness for developing the child as a whole. It is also very important to keep in mind for the future research to measure the effects of mindfulness interventions. Also, research is required for the assessment and evaluation of mindfulness programs as tools used to evaluate or assess mindfulness in children and adolescents have not been satisfactorily tested with this group (Burke, 2010; Lee et al., 2008). It is imperative to have reliable and valid tools for evaluation specifically for children and adolescents. Till now only programme “Child and Adolescent Mindfulness Measure” has been normed and adapted for use with children (Thomp-

son & Gauntlett-Gilbert, 2008). Another essential way to reach a better understanding of working of mindfulness-based practices is to include the qualitative and quantitative studies to assess or measure the benefits of mindfulness-based practices.

Another area of importance to educationists and curriculum planners is to explore the extent of time consumed in mindfulness practice, how much time should be allotted and how will it affect results. Till now, research results have displayed assorted outcomes, with some result show that mindfulness practice is beneficial with increased time whereas others show no substantial difference in terms of time (Biegel et al., 2009; Toneatto & Nguyen, 2007; Valentine & Sweet, 1999). Whether students practicing mindfulness at home after school experience show any greater benefit or not, if yes, for how much time at what age, also should be explored by the future researchers.

An additional imperative problem to ascertain is what situations are most favourable to get the maximum benefits from mindfulness-based practices in schools. Such as what time of the mindfulness-based interventions can be practiced? Future research can also investigate the factors and processes which can be applicable to the education settings of children and adolescents. Since the training and learning of mindfulness practices in schools arises some questions about implementing it in a practical and meaningful way, what results it will bring in the future, how can it be integrated in the existing curriculum and how teachers should be trained to teach or need some experts to teach it?

CONCLUSION

This chapter discusses theoretical perspectives and research on the notions of mindfulness, its application and utility in the educational setting. There are diverse perspectives taken from eastern meditative practices, philosophy and psychology which provide a wider understanding of mindfulness and its practices in different settings focusing, specifically on the educational setting. Mindfulness-based approaches have grown into one of the most deliberated and confirmed interventions. Through increasing awareness about the holistic learning, such “practices that were once considered fringe or marginal by mainstream educators only a decade ago, are now being embraced and openly recognised as integral elements in running a successful classroom” (Albrecht et al., 2012, p. 7) Mindfulness has been proposed to be illustrative of “a new age of positive education” (Ferrian, 2016), and “a new generation of professional teacher development” (Roeser et al., 2012, p. 167).

Although the recent years have seen number of research exploring and implementing the mindfulness-based interventions and practices, but in education field it is limited. The light has been thrown on the conceptual and practical issues in terms of implementing mindfulness in school system; a fresh understanding of these concepts will provide the objectives to do more exploration in the field. The purpose of this chapter is to explore the evidence and recommend that mindfulness has suggestions for how mindfulness practices can engage students, improve their well-being, and make them learn to be mindful as a technique of being present in the right here, right now realm and deal with it successfully. How practicing mindfulness creates awareness and understanding of self? How it also helps in accepting, appreciating, accommodating, and respecting or showing gratitude for the people and things that matter.

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KEY TERMS AND DEFINITIONS

Attention: A process of paying focus or taking notice of something or someone.

Attitude: A particular way of perceiving, thinking, or feeling about something or someone.

Implementation: The process of executing a decision or plan or a programme into an action.

Intention: A mental state of dedication to take an action in present or future to achieve one's aim or plan.

Mindfulness: Paying attention to things and accepting as they are and not how we expect them to be.

Non-Judgmental: Respecting and accepting the other person without making judgments of being right or wrong.

Non-Reactive: A person who responds to situation after contemplation and not act automatically or without thinking.

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