INTRODUCTION

Cultural influence on practice

Culture is considered to be “the configuration of learned behavior and results of behavior whose components and elements are shared and transmitted by the members of a particular society” (Linton, 1945). Culture exerts its influence in every part of one’s life. Therefore, it is not a surprise that it affects one’s health and health-seeking behaviors. Because culture has a strong sway on mental health, there is a growing need to conduct more studies to ascertain the extent of its influence. It is very closely intertwined with mental health and the counseling field, so much so that multicultural and diversity considerations are included in the codes of ethics of all professional mental health organizations.

Influence of the client’s culture

As counselors incorporate a greater awareness of their client’s culture, they must realize that historically, cultural differences have been viewed as deficits (Romero, 1985). Adherence to white cultural values has brought about a naïve imposition of narrowly defined criteria for normality on culturally diverse people (Peterson, 1986). Multicultural counseling, however seeks to rectify this imbalance. Although the variety of cultures is vast, the following examples indicate the types of cultural issues and their effects on the counseling situation.

In the cultural value system of Chinese Americans, passivity rather than assertiveness is revered, quiescence rather than verbal articulation is a sign of wisdom, and self-effacement rather than confrontation is a model of refinement (Ching and Prosen, 1980). Because humility and modesty are so valued, it is difficult for counselors to draw out a response from a Chinese-American in a group setting. The reticence, which reinforces silence and withdrawal as appropriate ways of dealing with conflict, may be interpreted as resistance by an uneducated counselor. Democratic counselors may also be uneasy with the role of the “all-knowing father” that the Chinese respect for authority bestows on them (Ching and Prosen, 1980).

Africans place great value on social relationships, with a great emphasis on the community and their place in it. In this context, social conflict resolution becomes important so that peace and equilibrium may be restored to the community, while personal conduct becomes secondary (McFadden and Gbekobov, 1984).

In a discussion of counseling the northern natives of Canada, counseling is seen as cultural racism when it does not fit native values. These values are cooperation, concreteness, lack of interference, respect for elders, the tendency to organize by space rather than time, and dealing with the land as animate, not inanimate, objects (Darou, 1987).

Bernal and Flores-Ortiz (1982) point out that Latin cultures view the family as the primary source of support for its members. Any suggestion that the family is not fulfilling this obligation can bring shame, stress, and increase reluctance to seek professional services. Involving the family in treatment will most likely ensure successful counseling outcomes with Latinos.

Mental disorders such as schizophrenia, depression and bipolar disorders are seen in people from all across the world. However, the manifestation varies greatly according to age, gender, culture, race and ethnicity. It has been found that clients from different cultures tend to be selective in expressing their symptoms in a more culturally accepted way. The clinician needs to have multicultural competence to be able to overcome this challenge.

Research has shown that culture influences the treatment-seeking behavior of clients. It has been noted that members of certain minority groups tend not to seek the help of mental health specialists; they prefer informal sources of care like the clergy, traditional healers, family and friends.

Findings also show that members of some minority groups have a feeling of mistrust that can have cultural and racial roots. The method of communication also varies widely from culture to culture and must be taken into account.
Influence of the health professional's culture

A major assumption for culturally effective counseling and psychotherapy is that counselors must acknowledge their own basic tendencies, the ways they comprehend other cultures, and the limits culture places on comprehension. It is essential to understand our own cultural heritage and worldview before we set about understanding and assisting other people (Ibrahim, 1985; Lauver, 1986). This understanding includes an awareness of one’s own philosophies of life and capabilities, recognition of different structures of reasoning, and an understanding of their effects on communication and counseling style. Lack of such understanding may hinder effective intervention.

Part of this self-awareness is acknowledgement that the counselor culture has at its core a set of white cultural values and norms by which clients are judged (Katz, 1985; Lauver, 1986). Assumptions about a cultural group, personal stereotypes and traditional counseling approaches may all signal acquiescence to white culture. Identification and awareness of the specific influences of white cultural values and bias on counseling will help counter the effects of this framework (Katz, 1985).

“The Invisible Whiteness of Being” (Gibson, 2006), proposes that white Americans do not think about race or have a need to think about it because their race or skin color has never been a problem for them psychologically, and therefore, their skin color is invisible to them. It is something that no one makes them aware of in a negative way. Many unconsciously feel it is normal to be white and have no reason to be aware of it.

The clinician has his or her own culture and worldview and brings this personal culture into the therapeutic setting. The intercultural and worldview of the clinician and client are different, and they may also have different assumptions of each other’s roles, pathology of the illness and the appropriate treatment options.

Additional definitions

Acculturation – The adaptation of one’s own cultural values to existence within another cultural context. It is a process that occurs when two distinct cultural groups have continuous first-hand contact, resulting in subsequent changes in the original cultural patterns of either or both groups. How does your client or client’s family deal with conflicting values of their traditional culture and that of the dominant culture?

Assimilation – Adoption of another culture’s values and way of life.

Bigotry – A set of attitudes characterized by hate of a cultural group often based on generalized misjudgments of cultural behavior and on a belief in the inferiority of the other group.

Central tendency – The belief that everyone with a culture is exactly alike, shares the same values, beliefs and attitudes.

Cultural competence – The ability of individuals and systems to respond respectfully and effectively to people of all cultures, classes, races, ethnic backgrounds and religions in a manner that recognizes, affirms and values the worth of individuals, families and communities, and protects and preserves the dignity of each.

Ethnicity – Of or pertaining to a social group within a cultural and social system that is based on variable traits including religious, linguistic, ancestral or physical characteristics.

Ethnocentrism – The belief that one’s values, standards and world are the best. (“If they are not like me, they are deviant.”) Misinterpretation and misjudgment based on looking at another person’s behavior from your own cultural reference point.

Genocide – The severe dynamics of difference in which one group regards another group as subhuman and seeks to destroy that group or their culture.

Institutional racism – A condition in which the structures and systems of a society restrict access to rights or resources from groups or individuals based on racial differences. No single person need do anything that is racist (Guide: Achieving Cultural Competence, 2001).

Individual differences

There is always a danger of stereotyping and confusing other influences such as race and socio-economic status with cultural influences. The most obvious danger in counseling is to oversimplify clients’ social systems by emphasizing the most obvious aspects of their backgrounds (Pederson, 1986). While universal categories are necessary to understand human experience, losing sight of specific individual factors would lead to ethical violations (Ibrahim, 1985).

Race, ethnicity, national origin, life stage, educational level, social class and sex roles influence individual clients. Counselors must view the identity and development of culturally diverse clients in terms of multiple, interactive factors instead of a strictly cultural framework (Romero, 1985). A pluralistic counselor considers all facets of clients’ personal history, family history, and social and cultural orientation (Arciniega and Newlou, 1981).

Although it is impossible to change backgrounds, counselors can avoid the problems of stereotyping and false expectations by examining their own values and norms, researching client backgrounds and finding methods to suit clients’ needs.
Clinical sensitivity toward client expectations, attributions, values, roles, beliefs and themes of coping and vulnerability is always necessary for effective outcomes. Three questions that counselors might use in assessing their approach are (Jereb, 1982):

1. Within what framework or context can I understand this client and what assessment can I use?
2. Within what context do the client and counselor determine what changes in functioning and what goals are desirable?
3. What techniques can be used to affect the desired change and what interventions would be effective?

Examining the counselor’s assumptions, acceptance of the multiplicity of variables that constitute an individual’s identity, and development of a client-centered, balanced counseling methods will help the multicultural counselor providing effective help.

Defining linguistic competence

The verbal and nonverbal communication of the health professional influences the counseling session and its success. According to Romero (1985), language barriers impede the counseling process when clients cannot express the complexity of their thoughts and feelings or may resist discussing affectionately charged issues.

Counselors, too, may become frustrated by their lack of bilingual ability. At worst, language barriers may lead to misdiagnosis and inappropriate treatment (Romero, 1985). Communication in a manner that is sensitive to the client’s culture will be very beneficial.

Linguistic competence is the capacity of a mental health professional to communicate effectively and convey information in a manner that is easily understood by diverse audiences, including persons of limited English proficiency, those who are not literate or have low literacy skills, and individuals with disabilities.

In positive communication climates, trust is established and reaffirmed, allowing freedom to explore sensitive issues and express disagreements (Shirley Pinder Cook).

Positive talk climates are:
- Descriptive rather than evaluative.
- Oriented towards problems rather than control.
- Spontaneous rather than manipulative.
- Empathic rather than neutral.
- Express equality rather than superiority.
- Provisional rather than certain or dogmatic.

Janet, continued...

Janet evaluated Tilda’s comments without delving into them more deeply. Instead, she implied they were not “correct” by her remarks, such as, “Annette is simply acting out her personal traumatic experience. See if you can understand.” While Janet was probably right about what caused Annette’s fighting, failing to acknowledge the inappropriateness of Annette’s behavior fueled Annette’s mother and grandmother’s contention that spanking was the direction to go.

Janet’s well-intentioned remarks fell on deaf ears. She struggled to control the session and drive home her message while superficially addressing Tilda’s recent past and assuming that Tilda would agree that corporal punishment was wrong. Had she probed more deeply about Tilda’s terrifying abuse and marital separation first, it may have been less challenging to advocate for Annette. And had Janet acknowledged Tilda’s normal grief responses to her own marriage and move, Tilda might have heard Janet’s powerful message that both the mother and her daughter had courageously shared and survived a terrifying experience.

Effective cross-cultural communication includes respect, understanding of the other’s point of view, openness, flexibility, tolerance of ambiguity, curiosity and appropriate humor. Other examples of linguistic competence are demonstrated through:

Different gestures

Very few gestures are universally understood and interpreted. What is acceptable in the U.S. maybe rude, offensive or obscene in other cultures. Here are a few gestures to be aware of:

- **Giving the thumbs-up.** In the U.S. and Europe. The thumbs-up means something good. It’s considered rude in many Asian and Islamic countries and a sign of displeasure in Spain.
- **Placing your hand up to indicate “stop.”** In some Asian countries, this means you are requesting permission to speak or go ahead.
- **Placing your hands on your hips.** In the U.S. and Europe, placing a hand on the hip means being open and is a confident gesture. In many Asian countries, it is considered arrogant.
- **Forming a circle with your fingers.** In the U.S., this means okay. In Japan, it means money. In France, it means worthless or zero. In Brazil and Germany, it’s considered obscene.
Respecting personal space

Generally, Germans, Chinese and Japanese appreciate more personal space than Americans, and Americans prefer more personal space than Latin Americans, Italians, French and middle Easterners. Americans, Canadians, and Europeans often like a field of about 18 inches. If you get too close, they will try to back away.

- **Shaking hands.** Some cultures do not shake hands, and others may prefer a soft or firm handshake. The Japanese keep the arm fully extended; it often bows. Middle Easterners place their free hand on the forearm of the other person. Orthodox Jewish men may prefer a soft handshake, and others may prefer a firmer handshake.

**A linguistic competence checklist for organizations**

The following checklist was designed by the National Center on Cultural Competence (NCCC) to help primary health organizations develop policies, structures, practices and procedures that support linguistic competence. According to the NCCC, health care organizations have been slow to develop and implement policies and structures to guide the provision of interpretation and translation services, which remain at the practitioner and consumer level. The following checklist can help mental health organizations develop policies, structures, practices and procedures that support linguistic competence.

The organization should have:

- A mission statement that articulates principles, rationale and values for providing linguistically and culturally competent health care services.
- Policies and procedures that support staff recruitment, hiring and retention to achieve the goal of and diverse and linguistically competent staff.
- Policies and procedures to evaluate the quality and appropriateness of interpretation and translation services.
- Policies and procedures to periodically evaluate consumer and personnel satisfaction with interpretation and translation services provided.
- Policies and resources that support community outreach initiatives to persons with limited English.
- Periodic reviews of the current and emergent policies, procedures and demographic trends for the geographic area served to determine interpretation and translation requirements (NCCC).

Mental health practitioner responsibility

When mental health professionals successfully incorporate the five culturally competent areas into their work, they can better identify and address client issues and provide best-practice treatment. Cultural competence requires that they be proficient in:

- **Defining a set of values and principles and demonstrate behaviors, attitudes and policies that enable them to work effectively cross-culturally.** In other words, when they approach their work with the intention of being culturally sensitive and self-aware, mental health practitioners become better listeners and observers.
- **Demonstrating a capacity to value diversity, conduct self-assessments, manage the dynamics of difference, acquire cultural knowledge and adapt diversity to the cultural contexts of clients they serve.** Many mental health supervisors drive home the message that actions speak louder than words, but both action and verbal communication are needed to manage the dynamics of difference.
- **Designing and implementing services that are tailored to the needs of clients sometimes means that mental health practitioners become better listeners and observers.**
- **Incorporating all of the above in service delivery and seeking out consultation at appropriate times.** A variety of networking opportunities provide mental health practitioners with referral sources in addition to ongoing supervision or coaching and mentoring with a person from a different cultural or ethnic background.

Richardson and Molinaro (1996) have suggested that self-awareness is a prerequisite for multicultural competence. Self-awareness often develops from personal and professional socializations to divergent cultural experiences. (Helms & Cook, 1999) When this self-awareness is integrated into clinical roles, mental health professionals are likely to develop complex perspectives on cultural influences in their role (Inman, 2006).

In addition to self-awareness, mental health professionals also need to recognize unique client variables, such as cultural membership and socialization, which affect client problems. If mental health practitioners do not have self-confidence in their abilities to integrate this information and perform a set of multicultural skills and behaviors, they are likely to experience decreased competence (Constantine & Ladany, 2001).

Janet, continued...

Janet is an excellent clinical social worker and passionate about domestic violence and traumatic exposure, particularly for children. Her career had been ignited by a personal childhood experience that involved her best friend. She was extremely committed to helping traumatized adults and children. Even though she shared the same ethnic and racial background as Tilda and Annette and understood intellectually, it was difficult for her to accept why a mother could suffer from domestic violence and still hit her own children. Janet's family had emigrated from the same country as Annette's, but Janet's family had moved to the U.S. years earlier. In contrast, Annette's mother and grandmother had arrived in the past few years and were still adapting to their new country. Janet had become acculturated,
adopter et intégrer les normes sociales et les règles occidentales dans son monde et sa vie quotidienne. Elle n’avait pas donné beaucoup de thought to the fact that Annette and her family were still quietly engaged in their familiar and different cultural practices.

Janet fut contrainte d’examiner ses motivations personnelles et ses interactions précédentes avec Annette après que la mère d’Annette a commencé à annuler leurs séances. En revoir ses discussions précédentes avec la famille d’Annette, elle reconnut qu’elle n’avait pas entièrement reconnu la courage de Tilda lorsqu’elle a finalement quitté sa relation matrimoniale abusive.

En outre, Janet a reconnu que la grand-mère d’Annette aurait pu être une alliée puissante et l’a invitée à des séances familiales, lui demandant de l’aider pour mieux comprendre la culture de la grand-mère. Janet a également fait un point sur apprendre plus sur sa propre famille et leur pays d’origine, revisitant ses normes culturelles, ainsi que sur comment les femmes y étaient traitées. Janet a aussi traduit l’information de trauma en langue primaire de Tilda, de sorte que Tilda et sa mère pourraient la lire sur leur propre.

Janet se devint plus réfléchie avec ses clients et expliqua plus compassionnellement la perspective occidentale sur la punition corporelle comme une professeure et un coach. Et en confiance grandissante entre les femmes, elle a été en mesure de rediriger le comportement d’Annette et de les aider à reprocesser et à intégrer leurs expériences traumatiques.

### Common areas of cultural and social class differences

Les cultures dominantes et non-dominantes, bien que souvent similaires, peuvent aussi être en conflit. La culture dominante crée souvent l’ensemble des règles, des rituels et des lois qui supplantent d’autres normes et routines dans une large société. Il est important de distinguer les différences créées par des facteurs intervenants qui influencent la culture.

La communication incorrecte peut se produire lorsqu’un professionnel de la santé mentale, orienté vers les normes culturelles dominantes, réalise une évaluation de santé mentale et fournit un traitement pour des personnes orientées vers une culture non-dominante. La communication incorrecte peut être causée par ces problèmes:

- Concept du temps.
- Relation de l’individu à d’autres.
- Rol de leur communauté.
- Religion ou croyances spirituelles.
- Rôles sociaux.
- Ethique du travail.
- Respect et degré de respect.
- Weltanschauung.
- Vue de la relation d’aide.
- Pratiques parentales, notamment la responsabilité déléguée aux enfants.
- La dépendance adulte et le degré de discipline.

### Common cultural competence missteps

En général, le plus courant des erreurs de compétence culturelle dans la santé mentale incluent:

- Préjugés raciaux accidentels.
- Communication incorrecte.
- Manque de conscience personnelle.
- Insensibilité à des indices non verbaux.
- Manque de discours sur les questions raciales/ethniques.
- Biases de genre.
- Surcharge sur l’explication des problèmes psychologiques pour les traitements psychologiques.
- Défauts incluant des questions appropriées dans le contexte de la prise de connaissance des informations.
- Inability to appropriately present questions that elicit valuable information or feedback.
- Nonparticipation in multicultural activities that facilitate cultural awareness, including interactions with people of similar and different racial identities.

- Inability to identify multiple hypothèses and integrate this information in a culturally competent manner into a client’s presenting problem.

While cultural competence often references ethnic or racial cultural missteps, it is also important to note that cultural competence should address other diverse populations, such as young people and the system of care for children’s mental health. The National Institute of Mental Health emphasizes the importance of addressing cultural issues in serving children with emotional disturbances and their families.

In addition, certain cultural issues exist for subgroups of young people, such as bi- or transgender youth.
Cultural competence proficiency continuum

Understanding and practicing cultural competence is learned. The cultural competence proficiency continuum ranges from destructive to proficient and includes more subtle areas of demonstrating cultural proficiency in between as follows:

1. Cultural destructiveness.
2. Cultural incapacity.
3. Cultural blindness.
4. Cultural pre-competence.
5. Cultural competence.
6. Cultural proficiency.

Continuum feelings and behaviors include fear, denial, minimization, relativism, empathy and integration. The most destructive end of the cultural proficiency continuum encompasses fear. Fear occurs where a person views others with trepidation, avoids contact, and eventually simply denies the existence of others. Superiority occurs when someone sees another person as inferior. Minimization happens when a person is acknowledged, but her or his importance is minimized. As the proficiency continuum progresses toward cultural competence and proficiency, relativism occurs when a person recognizes and appreciates and values differences, and exhibits empathy with a full understanding of how others perceive the world and how they are treated. Cultural competence proficiency is demonstrated when there is integration of assessment, and appropriate actions are taken in situations involving members of other cultures.

Cultural awareness and cultural sensitivity

When mental health professionals demonstrate cultural proficiency, they’ve incorporated cultural and linguistic knowledge, awareness and sensitivity into their work. Cultural knowledge, cultural awareness and cultural sensitivity all convey the idea of improving cross-cultural capacity, but they are defined differently.

Cultural sensitivity is defined as knowing that cultural differences as well as similarities exist, without assigning values such as better or worse, right or wrong to those cultural differences (National Maternal and Child Health Center on Cultural competency, 1997).

Cultural knowledge is familiarization with selected cultural characteristics, history, values, belief systems and behaviors of the members of another ethnic group (Adams, 1995). Cultural awareness is developing sensitivity and understanding of another ethnic group. This usually involves internal changes in terms of attitudes and values. Awareness and sensitivity also refer to the qualities of openness and flexibility that people develop in relation to others. Cultural awareness must be supplemented with cultural knowledge (Adams, 1995).

Strategies to promote diversity and cultural competence

Cultural competence begins with an awareness of one’s personal cultural beliefs and practices, and recognition that people from other cultures may not share them. Cultural competence travels well beyond speaking another language or recognizing cultural icons. It encompasses transforming prejudices or biases about beliefs and customs.

Cultural competence is rooted in respect and validation towards someone different. Mental health practitioners can benefit from a personal check-in while acquiring client background information. The following questions may appear deceptively simple, but can be surprisingly helpful:

Ask yourself:
- Am I open to working with other ethnic and cultural groups?
- Do I have personal biases, and can I challenge myself to understand and overcome them?
- Am I willing to take the time to learn about my clients’ culture?
- Do I have a strategy to monitor my reactions and feelings to avoid imposing my values on others?
- Am I able to give up control to empower my client?

If the answer to any of the above questions is “no” the practitioner should seek training and guidance from a supervisor or colleague. This may include additional self-assessment to identify personal bias and further training to develop multi cultural competence before interacting with clients.

Self-assessment sample

Different types of cultural competency self-assessments have been developed that address specific areas of cultural competence. The following example is an assessment developed by the Georgetown University Center for Child and Human Development, titled Self-Assessment Checklist for personnel providing services and supports to children with disabilities and special health needs and their families. The assessment was broken down into three areas that include physical environment, communication styles and values and attitudes. There is no answer key with correct responses. However, mental health practitioners who often respond with “C” may want to learn more about how to engage in more culturally sensitive service delivery.

Self-assessment checklist for personnel providing services and supports to children with disabilities and special health needs and their families

(Adapted from “Promoting Cultural Competence and Diversity in Early Intervention and Early Childhood Settings” – Georgetown University Center for Child and Human Development University Center for Excellence in Developmental Disabilities Education, Research and Service.)

Directions: Please select A, B, or C for each item listed below. A = Things I do frequently, B = Things I do occasionally, C = Things I do rarely or never.

<table>
<thead>
<tr>
<th>Physical environment, materials and resources</th>
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<tbody>
<tr>
<td>1. I display pictures, posters and other materials that reflect the cultures and ethnic backgrounds of children and families within my practice.</td>
</tr>
<tr>
<td>2. I ensure that magazines, brochures and other printed materials in reception areas are of interest to and reflect the different cultures of children and families served.</td>
</tr>
<tr>
<td>3. I ensure that toys and other play accessories in reception areas and those used during assessment are representative of the various cultural and ethnic groups within my practice.</td>
</tr>
</tbody>
</table>
4. When using videos, films or other media resources for health education, treatment or other interventions, I ensure that they reflect the cultures of children and families served by my program or agency.

5. When using food during an assessment, I ensure that meals provided include foods that are unique to the cultural and ethnic backgrounds of children and families served by me.

**Communication styles**

6. For children who speak languages or dialects other than English, I attempt to learn and use key words in their language so that I am better able to communicate with them during assessment, treatment or other interventions.

7. I attempt to determine any familial colloquialisms used by children and families that may impact assessment, treatment or other interventions.

8. I use visual aids, gestures and physical prompts with clients who have limited English proficiency.

9. I use bilingual staff or trained or certified interpreters for assessment, treatment sessions, meetings and for other events for families who would require this level of assistance.

10. I use bilingual staff or trained or certified interpreters for assessment, treatment and other interventions with children who have limited English proficiency.

11. When interacting with parents who have limitations in English proficiency, I always keep in mind that:

   * Limitation in English proficiency is in no way a reflection of their level of intellectual function.

   * Their limited ability to speak the language of the dominant culture has no bearing on their ability to communicate effectively in their language of origin.

   * They may or may not be literate in their language of origin or English.

12. When possible, I ensure that all notices and communiqués to parents are written in their language of origin.

13. I understand that it may be necessary to use alternatives to written communications for some families, and that word of mouth may be a preferred method of receiving information.

14. I understand the principles and practices of linguistic competency and:

   * Apply them within my program or agency.

   * Advocate for them within my practice, program or agency.

15. I understand the implications of health literacy within the context of my roles and responsibilities.

16. I use alternative formats and varied approaches to communicate and share information with children and/or their family members who experience disability.

**Values and attitudes**

17. I avoid imposing values that may conflict or be inconsistent with those of clients.

18. In group therapy or treatment situations, I discourage racial and ethnic slurs by helping participants understand that certain words can hurt others.

19. I screen books, movies and other media resources for negative cultural, ethnic or racial stereotypes before sharing them with children and their parents served by my agency or myself.

20. I intervene in an appropriate manner when I observe other staff or parents within my program or agency engaging in behaviors that show cultural insensitivity, bias or prejudice.

21. I understand and accept that “family” is defined differently by different cultures.

22. I accept and respect that male-female roles in families may vary significantly among different cultures (e.g., who makes major decisions for the family, play and social interactions expected of the eldest male in families).

23. I recognize and accept that individuals from culturally diverse backgrounds may desire varying degrees of acculturation into the dominant culture.

24. I understand that age and life cycle factors must be considered in interactions with individuals and families (e.g., a high value placed on the decisions of elders or the role of the eldest male in families).

25. Even though my professional or moral viewpoints may differ, I accept that parents or family are the ultimate decision-makers for services and supports for their children.

26. I recognize that the meaning or value of medical treatment, health care and health education may vary greatly among cultures.

27. I recognize and understand that beliefs and concepts of emotional well-being vary from culture to culture.

28. I understand that beliefs about mental illness and emotional disability are culturally based. I accept that responses to these conditions and related treatment and interventions are heavily influenced by culture.

29. I accept that religion and other beliefs may influence how families respond to illnesses, disease, disability and death.

30. I recognize and accept that folk and religious beliefs may influence a family’s reaction and approach to a child born with a disability or later diagnosed with physical or emotional disability or special health care needs.

31. I understand that traditional approaches to disciplining children are influenced by culture.

32. I understand that families from different cultures will have different expectations of their children for acquiring toileting, dressing, feeding and other self-help skills.

33. I accept and respect that customs and beliefs about food, its value, preparation and use are different from culture to culture.

34. Before visiting or providing in-home services, I seek information on acceptable behaviors, courtesies, customs and expectations that are unique to families of specific cultures and ethnic groups served by my agency or me.

35. I seek information from family members or other key community informants that assist in service adaptation to respond to the needs and preferences of culturally and ethnically diverse children and families served by my program or agency.

36. I advocate for the review of my program or agency’s mission statement, goals, policies and procedures to ensure that they incorporate principles and practices that promote cultural diversity and cultural competence.

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**Improving communication with clients**

It is helpful to keep this communication checklist in mind when building cultural competency:

- Build collaboration through reflective listening, inquiry and coaching.
- Invite your client to tell you what feels comfortable or uncomfortable, safe or unsafe, within your practice environment.
- Make no assumptions. Remember the old saying, “You can’t tell a book by its cover?” Try this exercise: When you’re introduced to someone new, before beginning a conversation imagine how the person speaks, based on his or her appearance. For example, one mental health practitioner remarked that because she and someone she had just met shared the same ethnic background, she imagined they would speak with the same accent. She was surprised when her new friend spoke quite differently.
- Cultural differences are valid. Communication, beliefs and daily practices become imprinted in children and have been developed from input from caregivers living out their cultural experiences.
• Assess for style or substance communication patterns and then match behavior and communication with those patterns.
• Self-observe and self-assess before reacting to someone who might prompt an “affectively charged” response.
• Learning cultural competence is challenging, and people make unintentional mistakes. So remember the phrase, “All the saints I know are dead.” Keep trying.
• Expand your cultural horizons by eating at a different restaurant, taking a foreign language class, asking for some coaching from a friend who shares a different life experience, or spending time volunteering with a more diverse population.
• Understand the differences between individuals and their personalities, and their broader cultural traditions. For example, people will very often adjust their language and conversation based on with whom they are speaking.
• Appreciate diversity and multiculturalism by buying something beautiful from another country.

The following questions can facilitate greater recognition and understanding about your clients when they or their parents have emigrated from another country. Mental health practitioners should present these questions in a timely manner and a culturally sensitive way:
1. **What was your migration history?** Migrating to a country can place people in different locations for periods of time before they eventually settle in an area. For example, many immigrants have spent time in other countries before eventually migrating to the United States. What did your client’s family experience? How long has your client lived in this country?
2. **What is your kinship network?** Are your clients and your client’s family members able to contact extended kin and other family members? Do they seek to be reunited with distant or lost kin? How do they define kinship? Does their kinship network include friends?
3. **Have you lived through traumatic experiences?** Has your client or your client’s family suffered violence, hardship, exploitation or humiliation before or as a result of relocation? Mental health practitioners must be extremely culturally sensitive when introducing this topic.
4. **Have you had to make any unusual living adjustments?** How did your client or your client’s family adjust to language, status, values, foods, employment opportunities, racism or child care?
5. **How is your health?** What does your client or client’s family believe about illness and health care?
6. **How do you cope with stress?** How has your client or your client’s family coped with hardships and challenges? What traditions and beliefs offer them comfort, strength and meaning?
7. **Have you experienced racism?** What types of institutional or informal prejudice has your client or your client’s family experienced and how have they dealt with it?
8. **What are your supports?** How do your clients view support? What types of support or help are available to your client or client’s family? Are they community- or family centered?

### Current Issues in multicultural counseling

Bullying, a unique problem in the field of multicultural counseling, affects school-age children and adolescents within marginalized groups, such as students of diverse cultures or students new to the United States. Because their cultures and backgrounds fail to mirror mainstream American society, these diverse, marginalized students are innocent targets for bullies. Not only do the bullies victimize them, but adults who often ignore bullying also leave them to their own resources.

By illuminating factors that stress marginalized groups of students, research exposes the danger of such adult attitudes. The factors that are stressors include students’ socioeconomic status, identity development, language, physical characteristics, skin color and type of hair (Merrill-James, 2006).

They also include school and community factors, such as pervasive attitudes of denial, justification, avoidance, racism and other forms of prejudice. Together these factors affect students’ peer group affiliations through name-calling and ostracism, and their self-esteem through verbal bullying, all of which perpetuate negative stereotypes, lower academic performance and school attendance, and contribute to a climate of violence (Merrill-James, 2006).

Best practices for addressing and putting an end to bullying include professional development and training for students and staff, group and individual counseling, and zero tolerance policies for verbal and other forms of bullying in schools. Additional research is needed about stressors that ensue from lower and middle class comparisons and intraracial bullying.

Future projections indicate that by the year 2020, a majority of school-age children attending public schools will be children of color or from diverse cultural, ethnic and linguistic backgrounds (Holcomb-McCoy and Moore-Thomas 2004). The current racial/ethnic distribution among students in public schools in the United States is about 1.2 percent native American, 4 percent Asian Pacific American, 15.6 percent Hispanic/Latino, 17.2 percent African-American, and 62.1 percent European/white American (National Center for Educational Statistics 2001).

Along with diversity are the increasing reports of bullying incidence among school-aged children and adolescents linked to cultural, ethnic, gender or linguistic differences. There are various definitions of bullying in the literature; however, a commonly cited definition is the repeated, aggressive, physical, psychological or sexual behavior a person directs toward another individual (Batsche and Knoff 1994; Olweus, 1993).

Some statistics on bullying indicate that 60 percent of students report bullying on the basis of appearance or body size, 57 percent on the basis of gender expression, 53 percent on ability, 52 percent on real or perceived sexual orientation, 40 percent on race/ethnicity, and 33 percent on religion or family income (Gordon 2001; Scott, 2002).

Reports indicated that 45 percent of all students said they feel unsafe at school because of some real or perceived personal characteristic, 9 percent of all students have skipped a class in the past month because they felt unsafe in school, 7 percent skipped an entire day of school, 29 percent of gay students skipped a day of school in the past month because of feeling unsafe (four times greater than in the general population) and 60 percent of all students who have been harassed or assaulted did not report the incident to faculty or staff (Gordon, 2001; Scott, 2002).

Addressing diversity as a bullying issue is one of the challenges facing school and mental health counselors. The counseling process must validate and affirm children from marginalized groups and recognize the contextual dimension of race, culture, class, gender, religion, sexual orientation and geography. A marginalized group includes children and adolescents whose cultures and backgrounds do not necessarily mirror the cultural dictates of mainstream American society (Holcomb-McCoy and Moore-Thomas, 2004). Culturally responsive counseling practices require an ethic of caring and understanding in an effort to build bridges between different ethnic groups.

<table>
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<tr>
<th>Task</th>
<th>Example</th>
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<td>5.</td>
<td><strong>Have you experienced racism?</strong> What types of institutional or informal prejudice has your client or your client’s family experienced and how have they dealt with it?</td>
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<tr>
<td>6.</td>
<td><strong>How do you cope with stress?</strong> How has your client or your client’s family coped with hardships and challenges? What traditions and beliefs offer them comfort, strength and meaning?</td>
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<tr>
<td>7.</td>
<td><strong>Have you experienced racism?</strong> What types of institutional or informal prejudice has your client or your client’s family experienced and how have they dealt with it?</td>
</tr>
<tr>
<td>8.</td>
<td><strong>What are your supports?</strong> How do your clients view support? What types of support or help are available to your client or client’s family? Are they community- or family centered?</td>
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Although all forms of bullying are of significance when addressing the concerns of students, school-aged children, adolescents and adults, counselors must develop techniques to address bullying within marginalized groups, including intraracial bullying (Merrell-James, 2006).

Intraracial bullying is a unique problem in the field of multicultural counseling because this form of bullying occurs between people of the same ethnic or racial group. Making it unique are the racial, social, political and educational factors that this form of bullying embodies. The bully selects certain characteristics or attributes common to the ethnic group that becomes the target for abuse. These characteristics include hair type, skin color, intellectual ability, economic background, material items and physical characteristics.

### Suggested best practices to address bullying

The following list contains suggested strategies that multicultural counselors can use to address bullying in the school and community:

- Be aware of the various forms of bullying.
- Develop a zero-tolerance policy for bullying.
- Be prepared to host professional development workshops for parents, students, staff and the community on the issue of bullying.
- The workshops will focus on defining the problem and working on suggestions for addressing the behavior in the school and the community.
- Include bullying intervention strategies in all work plans against bullying and violence in schools and community organizations.
- Multicultural counselors should encourage students to research their ethnic heritage by reading selected literature, attending cultural events, and interacting with experts on the history and culture of their heritage.
- Form multicultural groups for students to address ethnic identity, exploration, and to develop awareness and understanding of ethnic groups other than their own.
- Help students manage the impact of others negative perceptions. Coping with others’ faulty perceptions based on stereotypes is an ongoing and difficult path that will likely impact the adolescents’ lives (Holcombe–McCoy and Moore–Thomas, 2001).
- Use case scenarios depicting problems, including racism, gender and classism, as catalysts for discussion. During these discussions, it is important for counselors to take a non-expert role so adolescents feel comfortable expressing their feelings. Counselors may ask questions that provide youths with an opportunity not only to articulate their feelings about racism but also to brainstorm new ways of challenging and managing racist encounters.
- School counselors and educators must encourage the development of self-acceptance by reminding youth of their inner as well as outer beauty and the significant aspects of their heritage.
- Consult with diversity agencies and organizations in the community to help answer questions on racial identity and development.
- Develop a list of professionals from diverse cultures to contact for assistance as you address diversity in your counseling.

Golden (2004) suggests multicultural counselors and educators also keep this in mind:  

Parents sometimes fail to warn students about bullying because of their ethnicity or help them develop coping strategies. In addition, it is rare that parents will warn their children about hateful name-calling from within their own ethnic group. Parents should teach their children not to tease or judge their peers on the basis of outward appearance, which has nothing to do with beauty or identity.

### Multicultural competent supervision

Supervision is a primary method of clinical training, and clinicians rely on their supervisors to guide them as they seek to become culturally competent in providing treatment. A study conducted at Lehigh University investigated the direct and indirect impact of marriage and family therapy trainees’ perceptions of their supervisors’ multicultural competence on the supervisory working alliance and two outcome variables, trainees’ multicultural competence and perceived supervision satisfaction. Trainees who are able to differentiate cultural information, identify multiple hypotheses and integrate this information about clients are considered more proficient at their work (Blocher, 1983).

Research evidence supports the positive relationship between supervisor multicultural competence and the supervisory relationship. Factors such as the supervisors’ openness and attention to cultural factors and guidance on culture-specific issues have been deemed important to a culturally responsive supervisory relationship.

In the Lehigh study, a supervisory working alliance served as a significant positive mediator in the relationship between supervisor multicultural competence and supervision satisfaction. In addition, a supervisory relationship that involves an implementation of cultural competence through a mutual agreement on goals and tasks with a focus on multicultural issues may provide for greater supervision satisfaction.

Although trainee satisfaction is crucial to achieving their goals (Heppner & Hadley) little attention has been given in the past to the issues of supervisor multicultural competence in building a working alliance. Another study (Constantine) on multicultural differences in supervisory relationships at twenty-two internship programs revealed that many participants reported that supervision would have been greatly enhanced if they had spent more time processing issues surrounding cultural differences in supervision.

Supervisors should have the capacity to model behavior that is culturally responsive; facilitate cross-cultural communications; and identify and bridge cultural gaps in both staff development and client service delivery. In their supervisory role, they have opportunities to develop and present culturally enriching activities that stimulate cultural awareness. Assertiveness and direction guide appropriate behavior among staff.

### Cultural responsiveness in mental health systems of care

A paradigm shift from ethnocentrism to multiculturalism in mental health systems is accomplished when cultural competence is seen as one of the primary goals of the entire system. In addition, ongoing evaluation of internal bias in policies, practices and personal philosophies is necessary to implement and sustain effective treatment protocols.

Three main components of program design for a mental health system that can facilitate the development of culturally responsive services are:

- Organizational structures, policies and procedures.
- Training curricula.
- Supervisory and staff roles and responsibilities.
Cultural responsiveness can be enhanced when:
- Non-dominant-culture staffers are used as consultants and coaches.
- Clear expectations and guidelines for staff exist regarding cultural responsiveness as a job requirement.
- Forms and processes pertaining to cultural bias, stereotypes and stigmatizing are regularly reviewed, monitored and revised.
- Cultural responsiveness training is required for all employees.
- Job expectations and supervisory responsibilities are established on service delivery and workplace interactions.

Overall, training on cultural competence should be presented as an enriching activity. Training in cultural responsiveness (competence) should include first, listing cultural responsiveness as an expectation and providing more details and practice opportunities for cross-cultural communication and ethnographic interviewing techniques. In addition, training should include focus on cultural self-assessment for trainees as a cultural responsiveness tool. Training must include building skills that aid in differentiating the limitations in mental health functioning due to culture and cultural adaptation to life experience. Regular discussion and information-sharing on additional impacts of regional culture, the culture of economics in addition to other drug, gender or sexual cultures on assessment factors, case planning and case management issues should occur.

Community-based resources for culture-specific information and services should be included within the training along with case examples that implement a variety of teaching methodologies. Within the context of training on cultural competence, trainers should remain sensitive to and gently confront culturally insensitive statements (National Respite Network).

Conclusion

Cultural competence in mental health practice incorporates culture, competence and diversity as well as language. Five elements of cultural competence include valuing diversity, conducting cultural self-assessments, managing the dynamics of difference, acquiring and integrating cultural knowledge, and adapting to diversity and cultural contexts that include policy, structure, values and services.

Linguistic competence is the ability to communicate effectively, in a manner easily understood by diverse clients, including clients of limited English proficiency, those who are not literate or have low literacy skills, and individuals with disabilities.

There are a variety of cultural competence strategies available to mental health practitioners that promote cultural competence in the workplace, and they all build on the five elements of cultural competence. Mental health practitioners have a responsibility to incorporate the five cultural competencies into their work, and according to social researchers, self-awareness is a prerequisite for multicultural competence.

When working with diverse populations, mental health practitioners should keep in mind dominant and non-dominant culture practices and expectations, and avoid unintentional error through various cultural competence missteps that include unintentional racism.

A supervisory relationship that involves an implementation of cultural competence through a mutual agreement on goals and tasks with a focus on multicultural issues may provide for greater supervision satisfaction (Inman, 2006).

Paradigm shifts from ethnocentrism to multiculturalism can occur in larger mental health systems when cultural competence is seen as one of the primary goals of the entire system.

Training on cultural competence should also be presented as an enriching experience for staff in mental health organizations and include stressing cultural self-assessment as a cultural responsiveness tool.

The most important work for every counselor and mental health professionals is to become more culturally responsive and respectful. Cultural competence is first and foremost a commitment to take the next step, and the next, and the next toward offering accessible and appropriate services for the diverse clients and communities being served. Counselors need to learn to ask questions sensitively and to show respect for different cultures (Ahmed, 2011).

Looking forward

Multiculturalism has been referred to as the “fourth force” in counseling alongside the traditional psychodynamic, cognitive-behavioral, and humanistic approaches (Ivey, Ivey, & Simek-Morgan, 1997; Pederson, 1991). Given the data suggesting the continuing disparities in mental health services for diverse socio-cultural populations, organizational efforts to enhance multiculturalism in multicultural counseling competency need to be continued in the counseling field.

At the close of the 2010 Multicultural Social Justice Leadership Development Academy, a number of strategies were developed as listed below (Zalaquett, 2011):
- The first strategy was to develop a support system for counselors and counselor educators who might feel they are “lone wolves” in their working environments. This support might help counselor educators feel empowered to stand strong and move forward in their work as advocates for social multicultural justice. This would help counseling professionals find and use their own voices, and help them balance the “I” with the “we.” Empowering activities should be implemented to help individuals feel connected.
- The second strategy was to provide more “bottom-up” rather than “top-down” training. Training should be more participatory, integrating experiential components into workshops. Promoting group dialogue and reducing lecture-style presentations will help participants become more aware of the problems within society. Assistance should be provided to aid the development of groups that work as a collective unit to bring about social justice.
- Additional strategies included promoting change that is based on kindness and consideration, being less politically correct, and offering more authenticity in communication. Individuals should listen before engaging, be more patient, and embrace differences. All states should participate in the development of multicultural social justice, and this should include the provision of workshops focused on meeting the social justice needs in schools and communities.
- The development of programs to provide more time to participate should be encouraged. Training programs should be expanded to include a wide variety of presenters who are not primarily ethnic/racial minorities and should include more participants from the dominant racial/ethnic group.
- Training activities could include self-discovery activities, reacting to cultural values that differ from their own, and role-playing. Workshops could also be developed for teachers, children and parents and could be provided in the schools when possible.
- Mentoring for graduate students should also be provided, and as a long-term goal, multicultural social justice training should become a requirement for licensing or certification.
At the close of the session, participants in the conference felt that work was needed to encourage more therapists and counselors to become open-minded, and validated the need for social justice. Speaking out against injustice is about affirming and confirming action – not about being right or wrong (Zalaquett, 2011).

If we look to this future of counseling from a multicultural and social justice perspective, it is important that we open our eyes to the many different perspectives held by diverse people in our society. We must all be willing to see the world from the view of those who are different and have insight into how we view the world from our own phenomenological perspective. Using the multicultural counseling competencies (Sue et al., 1994), counselors can look at themselves and begin to see and conceptualize multicultural counseling competencies and learn about themselves and diverse clients their attitudes and beliefs, knowledge and skills. Applying this knowledge is essential if we are to develop counselors who are multicultural, competent and oriented towards social justice (Zalaquett, 2011).

References

- California Department of Consumer Affairs (1990) Professional Therapy Never Includes Sex. Sacramento, CAD.
CULTURAL COMPETENCE IN MENTAL HEALTH PRACTICE PART 2: ASSESSMENT, APPLICATION AND ADVOCACY

Final Examination Questions

Select the best answer for each question and complete your test online at Psychology.EliteCME.com

1. _______ is the adaptation of one’s own cultural values to existence within another cultural context.
   a. Acculturation.
   b. Ethnicity.
   c. Emersion.
   d. Cultural acceptance.

2. _______ is the adoption of another culture’s values and way of life.
   a. Emersion.
   b. Assimilation.
   c. Accommodation.
   d. Amalgamation.

3. The _______ often creates the overall set of rules, rituals and laws that override other cultural norms and routines within a larger society.
   a. Dominant culture.
   b. Cross culture.
   c. Prevalent culture.
   d. Original culture.

4. _______ is defined as knowing that cultural differences as well as similarities exist, without assigning values such as better or worse, right or wrong to those cultural differences.
   a. Cultural sensitivity.
   b. Cultural awareness.
   c. Ethnic sensitivity.
   d. Cultural ethics.

5. _______ is familiarization with selected cultural characteristics, history, values, belief systems and behaviors of the members of another ethnic group.
   a. Social knowledge.
   b. Cultural identity.
   c. Ethnicity.
   d. Cultural knowledge.

6. _______ is developing sensitivity and understanding of another ethnic group.
   a. Cultural ethics.
   b. Cultural awareness.
   c. Counseling competency.
   d. Cultural sensitivity.

7. Cultural competence begins with _________.
   a. An awareness of one’s personal cultural beliefs and practices, and recognition that people from other cultures may not share them.
   b. An understanding that no one can meet the needs of cross-cultural clients.
   c. Study and training concerning the community cultural diversity.
   d. Coursework, certification and supervision.

8. Practitioners should build collaboration through _________.
   a. Education, outreach, and an interpreter.
   b. Reflective listening, inquiry and coaching.
   c. Guidance, education, and through family member communication.
   d. Training, instruction, and resources.

9. When addressing bullying the practitioner should use which of the following practices?
   a. Use case scenarios depicting problems, including racism, gender and classism, as catalysts for discussion.
   b. It is important for counselors to take an expert role so adolescents feel comfortable expressing their feelings.
   c. Counselors should not ask questions that provide youths with an opportunity to articulate their feelings about racism.
   d. Counselors should only work individually, one on one, when managing racism.

10. The supervisor has opportunities to _________.
    a. Develop and present culturally enriching activities that stimulate cultural awareness.
    b. Guide but never be assertiveness or direct appropriate behavior among staff.
    c. Observe but never interfere or critique a counselor’s practice.
    d. Admonish and reprimand the behavior of staff to change cultural views.

PYTX03CA18
Chapter 2: Ethics

3 CE Hours

By: Wade T. Lijewski, Ph.D. & Chad Hagans, Ph.D.

Learning objectives

- Summarize the importance of professional values and ethics in psychology.
- Distinguish between the general principles and the ethical standards of the American Psychological Association’s (APA’s) Ethical Principles of Psychologists and Code of Conduct.
- Describe potential ethical dilemmas.
- Explore methods for analyzing ethical issues.
- Describe what to do when an ethical or boundary violation occurs.
- Review and understand recent scholarship regarding ethical standards and issues surrounding the provision of psychological services via the internet.
- Explore case examples of ethical standards.

Introduction

Psychologists often work with vulnerable individuals in sensitive situations. An important aspect of being a mental health professional, whether you conduct research or provide therapeutic services, is being aware of the ethical issues faced by all psychologists. If you provide psychological services, you are obligated to remain informed regarding current ethical standards or issues.

Ethics, also known as moral philosophy, is a branch of philosophy that involves systematizing, defending, and recommending concepts of right and wrong behavior. The American Psychological Association (APA) Ethical Principles of Psychologists and Code of Conduct (known as the Ethics Code) consist of four parts:

- Introduction.
- Preamble.
- General Principles (A–E).
- Specific Ethical Standards.

The Introduction discusses the intent, organization, procedural considerations, and scope of application of the Ethics Code. The Preamble and General Principles are aspirational goals to guide psychologists toward the highest ideals of psychology. Although the General Principles are not themselves enforceable rules, they should be considered by psychologists in arriving at an ethical course of action.

The Ethical Standards set forth enforceable rules for conduct as psychologists. Most of the Ethical Standards are written broadly, in order to apply to psychologists in varied roles, although the application of an Ethical Standard may vary depending on the context. The Ethical Standards are not exhaustive. The fact that an Ethical Standard does not address a given behavior specifically does not imply either ethical or unethical conduct.

This Ethics Code applies only to psychologists’ activities that are part of their scientific, educational, or professional roles as psychologists. Areas covered include but are not limited to the clinical, counseling, and school practice of psychology; research; teaching; supervision of trainees; public service; policy development; social intervention; development of assessment instruments; conducting assessments; educational counseling; organizational consulting; forensic activities; program design and evaluation; and administration. It is important to note that the Ethics Code applies to these activities across a variety of situations and means of communication, such as in person, postal, telephone, Internet, and other electronic transmissions.

Membership in the APA commits members and student affiliates to comply with the standards of the APA Ethics Code and to the rules and procedures used to enforce them. Lack of awareness or misunderstanding of an Ethical Standard is not itself a defense to a charge of unethical conduct. The current Rules and Procedures of the APA Ethics Committee describe the procedures for filing, investigating, and resolving complaints of unethical conduct.

APA may impose sanctions on its members for violations of the Ethics Code standards, including termination of APA membership, and may notify other bodies and individuals of its actions. Actions that violate the standards of the Ethics Code may also lead to the imposition of sanctions on psychologists or students, whether or not they are APA members, by bodies other than APA, including state psychological associations, other professional groups, psychology boards, and other state or federal agencies. In addition, APA may take action against a member after his or her conviction of a felony, expulsion or suspension from an affiliated state psychological association, or suspension or loss of licensure.

The Ethics Code provides guidance and standards of professional conduct for psychologists that the APA and other bodies that choose to adopt them can apply to their members. The Ethics Code is not intended to be a basis of civil liability. Whether a psychologist has violated the Ethics Code standards does not solely determine whether the psychologist is legally liable in a court action, whether a contract is enforceable, or whether other legal consequences occur.

The Ethics Code utilizes words such as reasonably, appropriately, and potentially, which:

- Allow professional judgment on the part of psychologists.
- Eliminate injustice or inequality that would occur without the modifier.
- Ensure applicability across the broad range of activities conducted by psychologists.
- Guard against a set of rigid rules that might be quickly outdated.

As used in the Ethics Code, the term reasonably means the prevailing professional judgment of psychologists engaged in similar activities in similar circumstances, given the knowledge the psychologist had or should have had at the time.

Psychologists commit themselves to increasing the scientific and professional knowledge of behavior, people’s understanding of themselves and others, and to the use of such knowledge to improve the condition of individuals, organizations, and society. Psychologists respect and protect civil and human rights and the central importance of freedom of inquiry and expression in research, teaching, and publication. They strive to help the public develop informed judgments and choices concerning human behavior. In doing so, psychologists perform many roles, such as researcher, educator, diagnostician, therapist, supervisor, consultant, administrator, social interventionist, and expert witness.
**History**

The APA first created a Committee on Ethical Standards for Psychologists in 1947. The first version of the Ethics Code was adopted in 1952 and published in 1953. The most recent version of the Ethical Principles and Code of Conduct was in force from 1992 to 2003. The newest amendments to these documents became effective June 1, 2010.

From its inception, the Ethics Code has provided a common set of principles and standards upon which psychologists can build their professional and scientific work. The goals of the Ethics Code are the welfare and protection of the individuals and groups with whom psychologists work and the education of members, students, and the public regarding ethical standards of the discipline.

In the process of making decisions regarding their professional behavior, psychologists must consider this Ethics Code in addition to applicable laws and psychology board regulations. In applying the Ethics Code to their professional work, psychologists may consider other materials and guidelines that have been adopted or endorsed by scientific and professional psychological organizations and the dictates of their own conscience, as well as consult with others within the field.

In the event that the Ethics Code establishes a higher standard of conduct than is required by law, psychologists must meet the higher ethical standard. Situations may arise in which psychologists’ ethical responsibilities conflict with law, regulations, or other governing legal authority. In this case, psychologists must communicate their commitment to this Ethics Code and take steps to resolve the conflict in a responsible manner consistent with basic principles of human rights.

The following section outlines the general principles and ethical standards of the APA Ethics Code (APA, 2003).

**GENERAL PRINCIPLES OF THE ETHICS CODE**

General Principles, as opposed to Ethical Standards, are broader and are aspirational in nature. Their purpose is to guide and inspire psychologists toward the very highest ethical ideals of the profession. General Principles, in contrast to Ethical Standards, do not represent obligations and should not form the basis for imposing sanctions.

**Principle A: Beneficence and Non-maleficence**

Psychologists strive to benefit those with whom they work and do no harm. In their professional actions, psychologists seek to safeguard the welfare and rights of those with whom they interact professionally and other affected persons and the welfare of animal subjects of research.

When conflicts occur among psychologists’ obligations or concerns, they are expected to attempt to resolve these conflicts in a responsible fashion that avoids or minimizes harm. Because psychologists’ scientific and professional judgments and actions may affect the lives of others, they are alert to and should guard against personal, financial, social, organizational, or political factors that might lead to misuse of their influence. Psychologists are also expected to be aware of the possible effect of their own physical and mental health on their ability to help those with whom they work.

**Principle B: Fidelity and Responsibility**

Psychologists must establish relationships of trust with those with whom they work. They are expected to be aware of their professional and scientific responsibilities to society and to the specific communities in which they work. Psychologists uphold professional standards of conduct, clarify their professional roles and obligations, accept appropriate responsibility for their behavior, and seek to manage conflicts of interest that could lead to exploitation or harm. Psychologists are expected to consult with, refer to, or cooperate with other professionals and institutions to the extent needed to serve the best interests of those with whom they work.

**Principle C: Integrity**

As a concept that many people feel is synonymous with the word *ethics*, psychologists seek to promote *integrity*. Integrity is the accuracy, honesty, and truthfulness in the science, teaching, and practice of psychology. This principle addresses the expectation that psychologists will not steal, cheat, or engage in fraud, subterfuge, or intentional misrepresentation of fact. Psychologists should strive to keep their promises and avoid unwise or unclear commitments.

In situations in which deception may be ethically justifiable to maximize benefits and minimize harm, psychologists have a serious obligation to consider the need for, the possible consequences of, and their responsibility to correct any resulting mistrust or other harmful effects that arise from the use of such techniques.

**Principle D: Justice**

Psychologists must recognize that fairness and justice entitle all people to access to and benefit from the contributions of psychology and to equal quality in the processes, procedures, and services that psychologists conduct. They are to exercise reasonable judgment and take precautions to ensure that their potential biases, the boundaries of their competence, and the limitations of their expertise do not lead to or condone unjust practices.

**Principle E: Respect for People’s Rights and Dignity**

Psychologists should respect the dignity and worth of all people and the rights of individuals to privacy, confidentiality, and self-determination. Psychologists must be aware that special safeguards may be necessary to protect the rights and welfare of persons or communities whose vulnerabilities impair autonomous decision making.

Psychologists should be aware of and respect cultural, individual, and role differences. These differences include those based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, and socioeconomic status. Every psychologist must consider these factors when working with members of such groups. Psychologists must endeavor to eliminate the effect on their work of biases based on such factors and should not knowingly participate in or condone activities of others based upon such prejudices.
ETHICAL STANDARDS

The ethical standards of the Ethics Code provide a more detailed look at specific situations psychologists encounter. They are currently divided into ten categories ranging from privacy and confidentiality to research, assessment, and therapy as related to their professional conduct. Each standard has additional subsections that relate to the overlying expectation.

### Ethical Standard #1: Resolving Ethical Issues

#### 1.01 Misuse of Psychologists' Work
If psychologists learn of misuse or misrepresentation of their work, they take reasonable steps to correct or minimize the misuse or misrepresentation.

#### 1.02 Conflicts Between Ethics and Law, Regulations, or Other Governing Legal Authority
If psychologists’ ethical responsibilities conflict with law, regulations, or other governing legal authority, psychologists clarify the nature of the conflict, make known their commitment to the Ethics Code, and take reasonable steps to resolve the conflict consistent with the General Principles and Ethical Standards of the Ethics Code. Under no circumstances may this standard be used to justify or defend violating human rights.

#### 1.03 Conflicts Between Ethics and Organizational Demands
If the demands of an organization with which psychologists are affiliated or for whom they are working are in conflict with this Ethics Code, psychologists clarify the nature of the conflict, make known their commitment to the Ethics Code, and take reasonable steps to resolve the conflict consistent with the General Principles and Ethical Standards of the Ethics Code. Under no circumstances may this standard be used to justify or defend violating human rights.

#### 1.04 Informal Resolution of Ethical Violations
When psychologists believe that there may have been an ethical violation by another psychologist, they attempt to resolve the issue by bringing it to the attention of that individual, if an informal resolution appears appropriate and the intervention does not violate any confidentiality rights that may be involved.

#### 1.05 Reporting Ethical Violations
If an apparent ethical violation has substantially harmed or is likely to substantially harm a person or organization and is not appropriate for informal resolution under Standard 1.04, Informal Resolution of Ethical Violations, or is not resolved properly in that fashion, psychologists take further action appropriate to the situation. Such action might include referral to state or national committees on professional ethics, to state licensing boards, or to the appropriate institutional authorities. This standard does not apply when an intervention would violate confidentiality rights or when psychologists have been retained to review the work of another psychologist whose professional conduct is in question.

#### 1.06 Cooperating with Ethics Committees
Psychologists cooperate in ethics investigations, proceedings, and resulting requirements of the APA or any affiliated state psychological association to which they belong. In doing so, they address any confidentiality issues. Failure to cooperate is itself an ethics violation. However, making a request for deferment of adjudication of an ethics complaint pending the outcome of litigation does not alone constitute noncooperation.

#### 1.07 Improper Complaints
Psychologists do not file or encourage the filing of ethics complaints that are made with reckless disregard for or willful ignorance of facts that would disprove the allegation.

### Ethical Standard #2: Competence

#### 2.01 Boundaries of Competence
Psychologists provide services, teach and conduct research with populations and in areas only within the boundaries of their competence, based on their education, training, supervised experience, consultation, study, or professional experience.

Where scientific or professional knowledge in the discipline of psychology establishes that an understanding of factors associated with age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, or socioeconomic status is essential for effective implementation of their services or research, psychologists have or obtain the training, experience, consultation, or supervision necessary to ensure the competence of their services, or they make appropriate referrals, except as provided in Standard 2.02, Providing Services in Emergencies.

Psychologists planning to provide services, teach, or conduct research involving populations, areas, techniques or technologies new to them undertake relevant education, training, supervised experience, consultation, or study.

When psychologists are asked to provide services to individuals for whom appropriate mental health services are not available and for which psychologists have not obtained the competence necessary, psychologists with closely related prior training or experience may provide such services in order to ensure that services are not denied if they make a reasonable effort to obtain the competence required by using relevant research, training, consultation, or study.

In those emerging areas in which generally recognized standards for preparatory training do not yet exist, psychologists nevertheless take reasonable steps to ensure the competence of their work and to protect clients/patients, students, supervisees, research participants, organizational clients, and others from harm.

When assuming forensic roles, psychologists are or become reasonably familiar with the judicial or administrative rules governing their roles.

#### 2.02 Providing Services in Emergencies
In emergencies, when psychologists provide services to individuals for whom other mental health services are not available and for which psychologists have not obtained the necessary training, psychologists may provide such services in order to ensure that services are not denied. The services are discontinued as soon as the emergency has ended or appropriate services are available.

#### 2.03 Maintaining Competence
Psychologists undertake ongoing efforts to develop and maintain their competence.
2.04 Bases for Scientific and Professional Judgments
Psychologists’ work is based upon established scientific and professional knowledge of the discipline.

2.05 Delegation of Work to Others
Psychologists who delegate work to employees, supervisees, or research or teaching assistants or who use the services of others, such as interpreters, take reasonable steps to (1) avoid delegating such work to persons who have a multiple relationship with those being served that would likely lead to exploitation or loss of objectivity; (2) authorize only those responsibilities that such persons can be expected to perform competently on the basis of their education, training or experience, either independently or with the level of supervision being provided; and (3) see that such persons perform these services competently.

2.06 Personal Problems and Conflicts
Psychologists refrain from initiating an activity when they know or should know that there is a substantial likelihood that their personal problems will prevent them from performing their work-related activities in a competent manner.

When psychologists become aware of personal problems that may interfere with their performing work-related duties adequately, they take appropriate measures, such as obtaining professional consultation or assistance and determine whether they should limit, suspend or terminate their work-related duties.

Ethical Standard #3: Human Relations

3.01 Unfair Discrimination
In their work-related activities, psychologists do not engage in unfair discrimination based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, socioeconomic status, or any basis proscribed by law.

3.02 Sexual Harassment
Psychologists do not engage in sexual harassment. Sexual harassment is defined as sexual solicitation, physical advances, or verbal or nonverbal conduct that is sexual in nature, that occurs in connection with the psychologist’s activities or roles as a psychologist and that either (1) is unwelcome, is offensive or creates a hostile workplace or educational environment, and the psychologist knows or is told this or (2) is sufficiently severe or intense to be abusive to a reasonable person in the context. Sexual harassment can consist of a single intense or severe act or of multiple persistent or pervasive acts.

3.03 Other Harassment
Psychologists do not knowingly engage in behavior that is harassing or demeaning to persons with whom they interact in their work based on factors such as those persons’ age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, or socioeconomic status.

3.04 Avoiding Harm
Psychologists take reasonable steps to avoid harming their clients/patients, students, supervisees, research participants, organizational clients, and others with whom they work, and to minimize harm where it is foreseeable and unavoidable.

3.05 Multiple Relationships
A multiple relationship occurs when a psychologist is in a professional role with a person and:
- At the same time is in another role with the same person;
- At the same time is in another relationship with the person with whom the psychologist has the professional relationship; or
- Promises to enter into another relationship in the future with the person or a person closely associated with or related to the person.

A psychologist refrains from entering into a multiple relationship if the multiple relationship could reasonably be expected to impair the psychologist’s objectivity, competence or effectiveness in performing his or her functions as a psychologist, or otherwise risks exploitation or harm to the person with whom the professional relationship exists.

Multiple relationships that would not reasonably be expected to cause impairment or risk exploitation or harm are not unethical:
- If a psychologist finds that, due to unforeseen factors, a potentially harmful multiple relationship has arisen, the psychologist takes reasonable steps to resolve it with due regard for the best interests of the affected person and maximal compliance with the Ethics Code.
- When psychologists are required by law, institutional policy, or extraordinary circumstances to serve in more than one role in judicial or administrative proceedings, at the outset they clarify role expectations and the extent of confidentiality and thereafter as changes occur.

3.06 Conflict of Interest
Psychologists refrain from taking on a professional role when personal, scientific, professional, legal, financial, or other interests or relationships could reasonably be expected to impair their objectivity, competence, or effectiveness in performing their functions as psychologists or expose the person or organization with whom the professional relationship exists to harm or exploitation.

3.07 Third-Party Requests for Services
When psychologists agree to provide services to a person or entity at the request of a third party, psychologists attempt to clarify at the outset of the service the nature of the relationship with all individuals or organizations involved. This clarification includes the role of the psychologist (therapist, consultant, diagnostician, or expert witness), an identification of who is the client, the probable uses of the services provided or the information obtained, and the fact that there may be limits to confidentiality.

3.08 Exploitative Relationships
Psychologists do not exploit persons over whom they have supervisory, evaluative, or other authority such as clients/patients, students, supervisees, research participants, and employees.

3.09 Cooperation with Other Professionals
When indicated and professionally appropriate, psychologists cooperate with other professionals in order to serve their clients/patients effectively and appropriately.

3.10 Informed Consent
When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons except when conducting such activities without consent is mandated by law or governmental regulation or as otherwise provided in this Ethics Code.
Ethical Standard #4: Privacy and Confidentiality

4.01 Maintaining Confidentiality
Psychologists have a primary obligation and take reasonable precautions to protect confidential information obtained through or stored in any medium, recognizing that the extent and limits of confidentiality may be regulated by law or established by institutional rules or professional or scientific relationship.

4.02 Discussing the Limits of Confidentiality
Psychologists discuss with persons (including, to the extent feasible, persons who are legally incapable of giving informed consent and their legal representatives) and organizations with whom they establish a scientific or professional relationship (1) the relevant limits of confidentiality and (2) the foreseeable uses of the information generated through their psychological activities.

Unless it is not feasible or is contraindicated, the discussion of confidentiality occurs at the outset of the relationship and thereafter as new circumstances may warrant. Psychologists who offer services, products, or information via electronic transmission inform clients/patients of the risks to privacy and limits of confidentiality.

4.03 Recording
Before recording the voices or images of individuals to whom they provide services, psychologists obtain permission from all such persons or their legal representatives.

4.04 Minimizing Intrusions on Privacy
Psychologists include in written and oral reports and consultations, only information germane to the purpose for which the communication is made.

Psychologists discuss confidential information obtained in their work only for appropriate scientific or professional purposes and only with persons clearly concerned with such matters.

4.05 Disclosures
Psychologists may disclose confidential information with the appropriate consent of the organizational client, the individual client/patient, or another legally authorized person on behalf of the client/patient unless prohibited by law.

Psychologists disclose confidential information without the consent of the individual only as mandated by law, or where permitted by law for a valid purpose such as:
- Provide needed professional services.
- Obtain appropriate professional consultations.
- Protect the client/patient, psychologist, or others from harm; or
- Obtain payment for services from a client/patient, in which instance disclosure is limited to the minimum that is necessary to achieve the purpose.

4.06 Consultations
When consulting with colleagues, (1) psychologists do not disclose confidential information that reasonably could lead to the identification of a client/patient, research participant, or other person or organization with whom they have a confidential relationship unless they have obtained the prior consent of the person or organization or the disclosure cannot be avoided, and (2) they disclose information only to the extent necessary to achieve the purposes of the consultation.

4.07 Use of Confidential Information for Didactic or Other Purposes
Psychologists do not disclose in their writings, lectures, or other public media, confidential, personally identifiable information concerning their clients/patients, students, research participants, organizational clients, or other recipients of their services that they obtained during the course of their work, unless they take reasonable steps to disguise the person or organization, the person or organization has consented in writing, or there is legal authorization for doing so.

Ethical Standard #5: Advertising and other Public Statements

5.01 Avoidance of False or Deceptive Statements
Public statements include but are not limited to paid or unpaid advertising, product endorsements, grant applications, licensing applications, other credentialing applications, brochures, printed matter, directory listings, personal resumes or curricula vitae or comments for use in media such as print or electronic transmission, statements in legal proceedings, lectures and public oral presentations, and published materials. Psychologists do not knowingly make public statements that are false, deceptive or fraudulent concerning their research, practice or other work activities, or those of persons or organizations with which they are affiliated.

Psychologists do not make false, deceptive or fraudulent statements concerning (1) their training, experience or competence; (2) their academic degrees; (3) their credentials; (4) their institutional or association affiliations; (5) their...
services; (6) the scientific or clinical basis for or results or
degree of success of, their services; (7) their fees; or (8) their
publications or research findings.
Psychologists claim degrees as credentials for their health
services only if those degrees were either earned from a
regionally accredited educational institution or were the basis
for psychology licensure by the state in which they practice.

5.02 Statements by Others
Psychologists who engage others to create or place public
statements that promote their professional practice, products, or
activities retain professional responsibility for such statements.
Psychologists do not compensate employees of press, radio,
television, or other communication media in return for publicity
in a news item. A paid advertisement relating to psychologists' activities must be identified or clearly recognizable as such.

5.03 Descriptions of Workshops and Non-Degree-Granting
Educational Programs
To the degree to which they exercise control, psychologists responsible for announcements, catalogs, brochures, or advertisements describing workshops, seminars, or other non-degree-granting educational programs ensure that they accurately describe the audience for which the program is intended, the educational objectives, the presenters, and the fees involved.

5.04 Media Presentations
When psychologists provide public advice or comment via print, internet, or other electronic transmission, they take precautions to ensure that statements:
- Are based on their professional knowledge, training, or experience in accord with appropriate psychological literature and practice;
- Are otherwise consistent with this Ethics Code; and
- Do not indicate that a professional relationship has been established with the recipient.

5.05 Testimonials
Psychologists do not solicit testimonials from current therapy clients/patients or other persons who because of their particular circumstances are vulnerable to undue influence.

5.06 In-Person Solicitation
Psychologists do not engage, directly or through agents, in uninvited in-person solicitation of business from actual or potential therapy clients/patients or other persons who because of their particular circumstances are vulnerable to undue influence. However, this prohibition does not preclude attempting to implement appropriate collateral contacts for the purpose of benefiting an already engaged therapy client/patient or providing disaster or community outreach services.

6.01 Documentation of Professional and Scientific Work and
Maintenance of Records
Psychologists create, and to the extent the records are under their control, maintain, disseminate, store, retain, and dispose of records and data relating to their professional and scientific work in order to (1) facilitate provision of services later by them or by other professionals, (2) allow for replication of research design and analyses, (3) meet institutional requirements, (4) ensure accuracy of billing and payments, and (5) ensure compliance with law.

6.02 Maintenance, Dissemination, and Disposal of Confidential
Records of Professional and Scientific Work
Psychologists maintain confidentiality in creating, storing, accessing, transferring and disposing of records under their control, whether these are written, automated or in any other medium.

If confidential information concerning recipients of psychological services is entered into databases or systems of records available to persons whose access has not been consented to by the recipient, psychologists use coding or other techniques to avoid the inclusion of personal identifiers.

Psychologists make plans in advance to facilitate the appropriate transfer and to protect the confidentiality of records and data in the event of psychologists' withdrawal from positions or practice.

6.03 Withholding Records for Nonpayment
Psychologists may not withhold records under their control that are requested and needed for a client's/patient's emergency treatment solely because payment has not been received.

6.04 Fees and Financial Arrangements
As early as is feasible in a professional or scientific relationship, psychologists and recipients of psychological services reach an agreement specifying compensation and billing arrangements.

Psychologists' fee practices are consistent with law. Psychologists are expected to not misrepresent their fees. If limitations to services can be anticipated because of limitations in financing, this is discussed with the recipient of services as early as is feasible.

If the recipient of services does not pay for services as agreed, and if psychologists intend to use collection agencies or legal measures to collect the fees, psychologists first inform the person that such measures will be taken and provide that person an opportunity to make prompt payment.

6.05 Barter with Clients/Patients
Barter is the acceptance of goods, services, or other nonmonetary remuneration from clients/patients in return for psychological services. Psychologists may barter only if (1) it is not clinically contraindicated, and (2) the resulting arrangement is not exploitative.

6.06 Accuracy in Reports to Payors and Funding Sources
In their reports to payors for services or sources of research funding, psychologists take reasonable steps to ensure the accurate reporting of the nature of the service provided or research conducted, the fees, charges or payments, and where applicable, the identity of the provider, the findings, and the diagnosis.

6.07 Referrals and Fees
When psychologists pay, receive payment from, or divide fees with another professional, other than in an employer-employee relationship, the payment to each is based on the services provided (clinical, consultative, administrative, or other) and is not based on the referral itself.

7.01 Design of Education and Training Programs
Psychologists responsible for education and training programs take reasonable steps to ensure that the programs are designed to provide the appropriate knowledge and proper experiences, and to meet the requirements for licensure, certification, or other goals for which claims are made by the program.
7.02 Descriptions of Education and Training Programs
Psychologists responsible for education and training programs take reasonable steps to ensure that there is a current and accurate description of the program content (including participation in required course- or program-related counseling, psychotherapy, experiential groups, consulting projects, or community service), training goals and objectives, stipends and benefits, and requirements that must be met for satisfactory completion of the program. This information must be made readily available to all interested parties.

7.03 Accuracy in Teaching
Psychologists take reasonable steps to ensure that course syllabi are accurate regarding the subject matter to be covered, bases for evaluating progress, and the nature of course experiences. This standard does not preclude an instructor from modifying course content or requirements when the instructor considers it pedagogically necessary or desirable, so long as students are made aware of these modifications in a manner that enables them to fulfill course requirements. When engaged in teaching or training, psychologists present psychological information accurately.

7.04 Student Disclosure of Personal Information
Psychologists do not require students or supervisees to disclose personal information in course either orally or in writing, regarding sexual history, history of abuse and neglect, psychological treatment, and relationships with parents, peers and spouses or significant others except if (1) the program or training facility has clearly identified this requirement in its admissions and program materials or (2) the information is necessary to evaluate or obtain assistance for students whose personal problems could reasonably be judged to be preventing them from performing their training or professionally related activities in a competent manner or posing a threat to the students or others.

7.05 Mandatory Individual or Group Therapy
When individual or group therapy is a program or course requirement, psychologists responsible for that program allow students in undergraduate and graduate programs the option of selecting such therapy from practitioners unaffiliated with the program. Faculty who are or are likely to be responsible for evaluating students’ academic performance do not themselves provide that therapy.

7.06 Assessing Student and Supervisee Performance
In academic and supervisory relationships, psychologists establish a timely and specific process for providing feedback to students and supervisees. Information regarding the process is provided to the student at the beginning of supervision. Psychologists evaluate students and supervisees on the basis of their actual performance on relevant and established program requirements.

7.07 Sexual Relationships with Students and Supervisees
Psychologists do not engage in sexual relationships with students or supervisees who are in their department, agency, or training center or over whom psychologists have or are likely to have evaluative authority.

8.02 Informed Consent to Research
When obtaining informed consent as required in Standard 3.10, Informed Consent, psychologists inform participants about:
- The purpose of the research, expected duration, and procedures.
- Their right to decline to participate and to withdraw from the research once participation has begun.
- The foreseeable consequences of declining or withdrawing.
- Reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects.
- Any prospective research benefits.
- Limits of confidentiality.
- Incentives for participation.
- Whom to contact for questions about the research and research participants’ rights. They provide opportunity for the prospective participants to ask questions and receive answers.
- Psychologists conducting intervention research involving the use of experimental treatments clarify to participants at the outset of the research.
- The experimental nature of the treatment.
- The services that will or will not be available to the control group(s) if appropriate.
- The means by which assignment to treatment and control groups will be made.
- Available treatment alternatives if an individual does not wish to participate in the research or wishes to withdraw once a study has begun.
- Compensation for or monetary costs of participating including, if appropriate, whether reimbursement from the participant or a third-party payor will be sought.

8.03 Informed Consent for Recording Voices and Images in Research
Psychologists obtain informed consent from research participants prior to recording their voices or images for data collection unless (1) the research consists solely of naturalistic observations in public places and it is not anticipated that the recording will be used in a manner that could cause personal identification or harm, or (2) the research design includes deception, and consent for the use of the recording is obtained during debriefing.

8.04 Client/Patient, Student, and Subordinate Research Participants
When psychologists conduct research with clients/patients, students, or subordinates as participants, psychologists take steps to protect the prospective participants from adverse consequences of declining or withdrawing from participation. When research participation is a course requirement or an opportunity for extra credit, the prospective participant is given the choice of equitable alternative activities.

8.05 Dispensing with Informed Consent for Research
Psychologists may dispense with informed consent only if research would not reasonably be assumed to create distress or harm and involves (a) the study of normal educational practices, curricula, or classroom management methods conducted in educational settings; (b) only anonymous questionnaires, naturalistic observations, or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability, or reputation, and confidentiality is protected; or (c) the study of factors related to job or organization effectiveness conducted in organizational settings for which there is no risk to participants’ employability and confidentiality is protected or (2) where otherwise permitted by law or federal or institutional regulations.

8.01 Institutional Approval
When institutional approval is required, psychologists provide accurate information about their research proposals and obtain approval prior to conducting the research. They conduct the research in accordance with the approved research protocol.

Ethical Standard #8: Research and Training
8.06 Offering Inducements for Research Participation
Psychologists make reasonable efforts to avoid offering excessive or inappropriate financial or other inducements for research participation when such inducements are likely to coerce participation.

When offering professional services as an inducement for research participation, psychologists clarify the nature of the services, as well as the risks, obligations, and limitations.

8.07 Deception in Research
Psychologists do not conduct a study involving deception unless they have determined that the use of deceptive techniques is justified by the study’s significant prospective scientific, educational, or applied value and that effective non-deceptive alternative procedures are not feasible.

Psychologists do not deceive prospective participants about research that is reasonably expected to cause physical pain or severe emotional distress.

Psychologists explain any deception that is an integral feature of the design and conduct of an experiment to participants as early as is feasible, preferably at the conclusion of their participation, but no later than at the conclusion of the data collection, and permit participants to withdraw their data. (See also Standard 8.08, Debriefing.)

8.08 Debriefing
Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of the research, and they take reasonable steps to correct any misconceptions that participants may have of which the psychologists are aware.

If scientific or humane values justify delaying or withholding this information, psychologists take reasonable measures to reduce the risk of harm.

When psychologists become aware that research procedures have harmed a participant, they take reasonable steps to minimize the harm.

8.09 Humane Care and Use of Animals in Research
Psychologists acquire, care for, use, and dispose of animals in compliance with current federal, state, and local laws and regulations, and with professional standards.

Psychologists trained in research methods and experienced in the care of laboratory animals supervise all procedures involving animals and are responsible for ensuring appropriate consideration of their comfort, health, and humane treatment.

Psychologists ensure that all individuals under their supervision who are using animals have received instruction in research methods and in the care, maintenance, and handling of the species being used, to the extent appropriate to their role. (See also Standard 2.05, Delegation of Work to Others.)

Psychologists make reasonable efforts to minimize the discomfort, infection, illness, and pain of animal subjects.

Psychologists use a procedure subjecting animals to pain, stress, or privation only when an alternative procedure is unavailable and the goal is justified by its prospective scientific, educational, or applied value.

Psychologists perform surgical procedures under appropriate anesthesia and follow techniques to avoid infection and minimize pain during and after surgery.

When it is appropriate that an animal’s life be terminated, psychologists proceed rapidly, with an effort to minimize pain and in accordance with accepted procedures.

8.10 Reporting Research Results
Psychologists are expected to not fabricate data.

If psychologists discover significant errors in their published data, they take reasonable steps to correct such errors in a correction, retraction, erratum, or other appropriate publication means.

8.11 Plagiarism
Psychologists do not present portions of another’s work or data as their own, even if the other work or data source is cited occasionally.

8.12 Publication Credit
Psychologists take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed.

Principal authorship and other publication credits accurately reflect the relative scientific or professional contributions of the individuals involved, regardless of their relative status. Mere possession of an institutional position, such as department chair, does not justify authorship credit. Minor contributions to the research or to the writing for publications are acknowledged appropriately, such as in footnotes or in an introductory statement.

Except under exceptional circumstances, a student is listed as principal author on any multiple-authored article that is substantially based on the student’s doctoral dissertation. Faculty advisors discuss publication credit with students as early as feasible and throughout the research and publication process as appropriate.

8.13 Duplicate Publication of Data
Psychologists do not publish, as original data, data that have been previously published. This does not preclude republishing data when they are accompanied by proper acknowledgment.

8.14 Sharing Research Data for Verification
After research results are published, psychologists do not withhold the data on which their conclusions are based from other competent professionals who seek to verify the substantive claims through reanalysis and who intend to use such data only for that purpose, provided that the confidentiality of the participants can be protected and unless legal rights concerning proprietary data preclude their release. This does not preclude psychologists from requiring that such individuals or groups be responsible for costs associated with the provision of such information.

Psychologists who review material submitted for presentation, publication, grant, or research proposal review respect the confidentiality of and the proprietary rights in such information.

Psychologists who request data from other psychologists to verify the substantive claims through reanalysis may use shared data only for the declared purpose. Requesting psychologists obtain prior written agreement for all other uses of the data.

8.15 Reviewers
Psychologists who review material submitted for presentation, publication, grant, or research proposal review respect the confidentiality of and the proprietary rights in such information of those who submitted it.

9.01 Bases for Assessments
Psychologists base the opinions contained in their recommendations, reports, and diagnostic or evaluative statements, including forensic testimony, on information and techniques sufficient to substantiate their findings.

Except as noted in 9.01c, psychologists provide opinions of the psychological characteristics of individuals only after they

Ethical Standard #9: Assessment
have conducted an examination of the individuals adequate to support their statements or conclusions. When, despite reasonable efforts, such an examination is not practical, psychologists document the efforts they made and the result of those efforts, clarify the probable impact of their limited information on the reliability and validity of their opinions and appropriately limit the nature and extent of their conclusions or recommendations.

When psychologists conduct a record review or provide consultation or supervision and an individual examination is not warranted or necessary for the opinion, psychologists explain this and the sources of information on which they based their conclusions and recommendations.

9.02 Use of Assessments
Psychologists administer, adapt, score, interpret, or use assessment techniques, interviews, tests, or instruments in a manner and for purposes that are appropriate in light of the research on or evidence of the usefulness and proper application of the techniques.

Psychologists use assessment instruments whose validity and reliability have been established for use with members of the population tested. When such validity or reliability has not been established, psychologists describe the strengths and limitations of test results and interpretation.

Psychologists use assessment methods that are appropriate to an individual’s language preference and competence, unless the use of an alternative language is relevant to the assessment issues.

9.03 Informed Consent in Assessments
Psychologists obtain informed consent for assessments, evaluations or diagnostic services, as described in Standard 3.10, Informed Consent, except when (1) testing is mandated by law or governmental regulations; (2) informed consent is implied because testing is conducted as a routine educational, institutional, or organizational activity (e.g., when participants voluntarily agree to assessment when applying for a job); or (3) one purpose of the testing is to evaluate decisional capacity. Informed consent includes an explanation of the nature and purpose of the assessment, fees, involvement of third parties and limits of confidentiality, and sufficient opportunity for the client/patient to ask questions and receive answers.

Psychologists inform persons with questionable capacity to consent or for whom testing is mandated by law or governmental regulations about the nature and purpose of the proposed assessment services, using language that is reasonably understandable to the person being assessed.

Psychologists using the services of an interpreter obtain informed consent from the client/patient to use that interpreter, ensure that confidentiality of test results and test security are maintained, and include in their recommendations, reports, and diagnostic or evaluative statements, including forensic testimony, discussion of any limitations on the data obtained.

9.04 Release of Test Data
The term test data refers to raw and scaled scores, client/patient responses to test questions or stimuli, and psychologists’ notes and recordings concerning client/patient statements and behavior during an examination. Those portions of test materials that include client/patient responses are included in the definition of test data. Pursuant to a client/patient release, psychologists provide test data to the client/patient or other persons identified in the release. Psychologists may refrain from releasing test data to protect a client/patient or others from substantial harm or misuse or misrepresentation of the data or the test, recognizing that in many instances release of confidential information under these circumstances is regulated by law.

In the absence of a client/patient release, psychologists provide test data only as required by law or court order.

9.05 Test Construction
Psychologists who develop tests and other assessment techniques use appropriate psychometric procedures and current scientific or professional knowledge for test design, standardization, validation, reduction or elimination of bias, and recommendations for use.

9.06 Interpreting Assessment Results
When interpreting assessment results, including automated interpretations, psychologists take into account the purpose of the assessment as well as the various test factors, test-taking abilities, and other characteristics of the person being assessed, such as situational, personal, linguistic, and cultural differences that might affect psychologists’ judgments or reduce the accuracy of their interpretations. They indicate any significant limitations of their interpretations.

9.07 Assessment by Unqualified Persons
Psychologists do not promote the use of psychological assessment techniques by unqualified persons, except when such use is conducted for training purposes with appropriate supervision.

9.08 Obsolete Tests and Outdated Test Results
Psychologists do not base their assessment or intervention decisions or recommendations on data or test results that are outdated for the current purpose. Psychologists do not base such decisions or recommendations on tests and measures that are obsolete and not useful for the current purpose.

9.09 Test Scoring and Interpretation Services
Psychologists who offer assessment or scoring services to other professionals accurately describe the purpose, norms, validity, reliability and applications of the procedures, and any special qualifications applicable to their use.

Psychologists select scoring and interpretation services (including automated services) on the basis of evidence of the validity of the program and procedures as well as on other appropriate considerations.

Psychologists retain responsibility for the appropriate application, interpretation, and use of assessment instruments, whether they score and interpret such tests themselves or use automated or other services.

9.10 Explaining Assessment Results
Regardless of whether the scoring and interpretation are done by psychologists, by employees or assistants, or by automated or other outside services, psychologists take reasonable steps to ensure that explanations of results are given to the individual or designated representative unless the nature of the relationship precludes provision of an explanation of results (such as in some organizational consulting, pre-employment or security screenings, and forensic evaluations), and this fact has been clearly explained to the person being assessed in advance.

9.11 Maintaining Test Security
The term test materials refers to manuals, instruments, protocols, and test questions or stimuli and does not include test data as defined in Standard 9.04, Release of Test Data. Psychologists make reasonable efforts to maintain the integrity and security of test materials and other assessment techniques consistent with law and contractual obligations, and in a manner that permits adherence to this Ethics Code.
Ethical Standard #10: Therapy

10.01 Informed Consent to Therapy
When obtaining informed consent to therapy as required in Standard 3.10, Informed Consent, psychologists inform clients/patients as early as feasible in the therapeutic relationship about the nature and anticipated course of therapy, fees, involvement of third parties and limits of confidentiality, and provide sufficient opportunity for the client/patient to ask questions and receive answers.

When obtaining informed consent for treatment for which generally recognized techniques and procedures have not been established, psychologists inform their clients/patients of the developing nature of the treatment, the potential risks involved, alternative treatments that may be available, and the voluntary nature of their participation.

When the therapist is a trainee and the legal responsibility for the treatment provided resides with the supervisor, the client/patient, as part of the informed consent procedure, is informed that the therapist is in training and is being supervised and is given the name of the supervisor.

10.02 Therapy Involving Couples or Families
When psychologists agree to provide services to several persons who have a relationship (such as spouses, significant others, or parents and children), they take reasonable steps to clarify at the outset (1) which of the individuals are clients/patients and (2) the relationship the psychologist will have with each person. This clarification includes the psychologist’s role and the probable uses of the services provided or the information obtained.

If it becomes apparent that psychologists may be called on to perform potentially conflicting roles (such as family therapist and then witness for one party in divorce proceedings), psychologists take reasonable steps to clarify and modify, or withdraw from, roles appropriately.

10.03 Group Therapy
When psychologists provide services to several persons in a group setting, they describe at the outset the roles and responsibilities of all parties and the limits of confidentiality.

10.04 Providing Therapy to Those Served by Others
In deciding whether to offer or provide services to those already receiving mental health services elsewhere, psychologists carefully consider the treatment issues and the potential client’s/patient’s welfare. Psychologists discuss these issues with the client/patient or another legally authorized person on behalf of the client/patient in order to minimize the risk of confusion and conflict, consult with the other service providers when appropriate, and proceed with caution and sensitivity to the therapeutic issues.

10.05 Sexual Intimacies with Current Therapy Clients/Patients
Psychologists do not engage in sexual intimacies with current therapy clients/patients.

10.06 Sexual Intimacies with Relatives or Significant Others of Current Therapy Clients/Patients
Psychologists do not engage in sexual intimacies with individuals they know to be close relatives, guardians, or significant others of current clients/patients. Psychologists do not terminate therapy to circumvent this standard.

10.07 Therapy with Former Sexual Partners
Psychologists do not accept as therapy clients/patients persons with whom they have engaged in sexual intimacies.

10.08 Sexual Intimacies with Former Therapy Clients/Patients
Psychologists do not engage in sexual intimacies with former clients/patients for at least two years after cessation or termination of therapy.

Psychologists do not engage in sexual intimacies with former clients/patients even after a two-year interval except in the most unusual circumstances. Psychologists who engage in such activity after the two years following cessation or termination of therapy and of having no sexual contact with the former client/patient bear the burden of demonstrating that there has been no exploitation, in light of all relevant factors, including (1) the amount of time that has passed since therapy terminated; (2) the nature, duration, and intensity of the therapy; (3) the circumstances of termination; (4) the client’s/patient’s personal history; (5) the client’s/patient’s current mental status; (6) the likelihood of adverse impact on the client/patient; and (7) any statements or actions made by the therapist during the course of therapy suggesting or inviting the possibility of a posttermination sexual or romantic relationship with the client/patient.

10.09 Interruption of Therapy
When entering into employment or contractual relationships, psychologists make reasonable efforts to provide for orderly and appropriate resolution of responsibility for client/patient care in the event that the employment or contractual relationship ends, with paramount consideration given to the welfare of the client/patient.

10.10 Terminating Therapy
Psychologists terminate therapy when it becomes reasonably clear that the client/patient no longer needs the service, is not likely to benefit, or is being harmed by continued service.

Psychologists may terminate therapy when threatened or otherwise endangered by the client/patient or another person with whom the client/patient has a relationship.

Except where precluded by the actions of clients/patients or third-party payors, prior to termination psychologists provide pretermination counseling and suggest alternative service providers as appropriate.

PSYCHOLOGISTS AND ETHICAL DILEMMAS

Psychologists deal with boundary issues every day, such as:
- “My client seems in crisis. Should I let the session run overtime?”
- “What should I say to my best friend who wants me to see his young daughter in psychotherapy?”
- “Is it a good idea for me to waive the fee for a proud client who desperately needs therapy, lost his job, and is unable to find other work?”
- “Should I attend my client’s wedding and bring a gift?”
- “My new client is known for giving great parties and has invited me. Should I go?”
- “I wonder what I should say to the tournament organizers. I really want to win but they’ve paired me with my therapy client as a doubles-partner.”

Starting in the early 1980s, questions like these began to rise and held the field’s attention. The 1980s through the mid-1990s saw a virtual explosion of healthy controversy and thoughtful writings on dual relationships, bartering, nonsexual touch, meeting therapy clients outside the office for social visits, and other nonssexual boundary issues. Should all prohibitions be abolished? Was it possible to tell which boundary crossings were therapeutically helpful, which were...
therapeutically contra-indicated as harmful, and which might be common or even unavoidable in certain communities or cultures? Research during the 80s and 90s demonstrated how theoretical orientation, size of the local community, therapist gender, client gender, profession, and other factors affected both the degree to which therapists engaged in crossing various boundaries and therapists’ beliefs about the nature and appropriateness of boundary crossings.

“The Concept of Boundaries in Clinical Practice, a ground-breaking article by Guthiel and Gabbard (1993), represented a turning point for the field. It provided a useful framework for thinking through and challenging beliefs, for providing thoughtful explorations, for learning from and arguing against, for understanding the history and development of this area, and for helping to think through difficult decisions in our day-to-day clinical work.

Guthiel and Gabbard (1993) organized the individual instances of boundary crossings such as Freud’s that were described in the literature, the emerging research, and the diverse viewpoints as a basis for their initial “explorations,” and developed a framework of boundary crossings and boundary violations that reflected the realities of clinical practice. Guthiel and Gabbard made judgments in light of the context and specifics. They examined crossings and violations of such diverse boundaries as role, time, place and space, money, gifts, services, clothing, language, self-disclosure, and physical contact. They emphasized that crossing boundaries “may at times be salutary, at times neutral, and at times harmful” and that the nature, clinical usefulness, and impact of a particular crossing “can only be assessed by a careful attention to the clinical context” (p. 188-189).

People differ in their ability to perceive that something they might do, or are already doing, could directly or indirectly affect the welfare of others (Rest, 1982). Below are a few of the most basic assumptions we make about ethical awareness and decision-making (Koocher & Keith-Spiegel, 2008; Pope & Vasquez, 2007).

- Ethical awareness is a continuous, active process that involves constant questioning and personal responsibility. Conflicts with managed care companies, the urgency of patients’ needs, the possibility of formal complaints by patients or second-guessing by colleagues about a difficult boundary decision we make, mind-deadening routines and endless paperwork, worrying about making ends meet, fatigue, and so much else can begin to block our personal responsiveness and dull our sense of personal responsibility. They can overwhelm us, drain us, distract us, lull us into ethical sleep, and make us more vulnerable to the tendency we all share as human beings to rationalize our questionable decisions. It is crucial to practice continued alertness and mindful awareness of the ethical implications of what we choose to do and not do.

- Awareness of ethical codes and legal standards is an essential aspect of critical thinking about ethics and of making ethical decisions. Codes and standards, however, inform rather than determine our ethical decisions. They cannot substitute for thinking and feeling our way through ethical dilemmas, and cannot protect us from ethical struggles and uncertainty. Each new client, regardless of similarities to other clients, is unique. Each therapist is unique. Each situation is unique and constantly evolves. Our theoretical orientation, the nature of our community and the client’s community, our culture and the client’s culture, and many other contexts influence what we see and how we see it. Every ethical decision must consider these contexts.

- Awareness of evolving research and theory in scientific and professional literature are also important aspects of ethical competence, but the claims and conclusions emerging in the literature should not be passively accepted or reflexively applied no matter how popular, authoritative, or seemingly obvious. We must greet published claims and conclusions with active, careful, informed, persistent, and comprehensive questioning.

Many of us find it easier to question the ethics of others, especially in an area as difficult and controversial as boundaries, while putting our own beliefs, assumptions, and actions off limits. Questioning someone’s ethical decisions and behavior must be a reciprocal process: it is crucial to question our own decisions and behavior and to allow ourselves to be questioned at least as much as we question others. It is a warning signal if we spend more time pointing out the supposed negative aspects of others, than we spend trying to overcome our own challenges and move into more positive perspectives and possibilities.

Psychologists often encounter ethical dilemmas without clear and easy answers. This is perhaps more true for boundary decisions than for any other area. We may confront overwhelming needs unmatched by adequate resources, conflicting responsibilities that seem impossible to reconcile, frustrating limits to our understanding and interventions, and countless other challenges as we seek to help people who come to us because they are hurting and in need, sometimes because they are desperate and have nowhere else to turn. Suddenly we are required to make dauntingly complex decisions about boundaries “on the spot” as a reaction to a client’s or colleague’s unexpected words or behaviors. There is no legitimate way to avoid these ethical struggles. They are part of our work.

Consultation is usually helpful and sometimes crucial. Because our own issues may blind us, consulting with trusted colleagues (those not involved with the situation) can strengthen ethical decision-making (Pope & Vasquez, 2007). Colleagues may best reveal unrecognized biases and useful perspectives that we had not considered. Moreover, as we make difficult decisions under stress, we may become more concerned with how the decision affects us—this is unintentional but understandable. For example, Will it place us at risk for a malpractice suit or licensing complaint? Will it alienate a referral sources we depend on? Will it cause a managed care company to drop us as a provider? Consultation may help us consider the consequences of our decisions for all those affected by them.

### Potential ethical issues

Here are some suggestions for ways to analyze potential ethical issues when you encounter them.

- Imagine what might be the “best possible outcome” and the “worst possible outcome” from either crossing or not crossing this boundary. Does either crossing or not crossing involve significant risk of negative consequences, or any real risk of serious harm, in the short or long term? If harm is a real possibility, are there ways to address it?

- Consider the research and other published literature on this boundary crossing. If there is none, consider bringing up the topic at the next meeting of your professional association or making a professional contribution in the form of an article.

- Familiarize yourself with, and take into account, any guidance regarding this boundary crossing offered by professional guidelines, ethics codes, legislation, case law, and other resources.

- Identify at least one colleague you can trust for honest feedback on boundary crossing questions.

- Pay attention to your interior uneasy feelings, doubts, or confusion, and try to determine what is causing them, in addition to what implications, if any, they may have for your decisions.

- Describe to a new client exactly how you work and what kind of services you provide as part of your informed consent and during the initial therapy session. If the client appears to feel uncomfortable, explore further and, if warranted, refer to a colleague who may be better suited to this individual.
• Refer to a suitable colleague any client whom you feel incompetent to treat or with whom you do not feel you could work effectively. Reasons to refer range your insufficient training and experience to personal attributes of the client that make you extremely uncomfortable in a way that prevents you from working effectively.

• Document in writing the reasons for any planned boundary crossing, describing exactly why, in your clinical judgment, this was (or will be) helpful to the client.

• Depend on the informed consent process for any planned and obvious boundary crossing, such as taking a phobic client for a walk in the local mall to window shop.

Boundary crossings

Some boundary crossings are unexpected: suddenly we encounter a client outside of therapy—at a friend’s dinner party or in a minor fender-bender on the street. Flustered and with no time to think, we may make a very human blunder. Other boundary crossings may be virtually inevitable or inescapable. In a small and geographically remote town, we may likely be in more than one relationship with our therapy clients, and some of these relationships may cause boundary crossings that undermine the therapy. Still other boundary crossings—despite the best of intentions, the most careful planning, and the most skillful intervention—may go wrong; therapy veers off course, the relationship unravels, growth and progress stall.

The signs of trouble may be sudden and unmistakable such as when the client criticizes us for crossing a boundary or for some consequence of the crossing, abruptly terminates, or perhaps even files a formal complaint. However, signs may also be more subtle, and it may be unclear whether the boundary crossing or something else is the cause. The client may begin missing sessions or not paying on time, the client-therapist rapport between us starts to erode, or there may be nothing specific we can point to but somehow things seem a little “off.”

Whether the signs of trouble with a boundary crossing are blatant or vague, if we start to suspect that we may have made a mistake, not handled the situation well, or need to address the effects of a boundary crossing, we each face a significant question: What do I do now?

It is important to continue to monitor the situation carefully, even though paying attention to it may be uncomfortable. It may be difficult for us as psychologists to realize we have made a mistake, perhaps a big one, and assume responsibility for our error. However, denial and avoidance are usually powerful resources for turning an emerging problem into a disaster!

Be open and non-defensive, even though this may be difficult. As we consider how our crossing a boundary with a client had negative results, we may be tempted to minimize the correlation between the boundary crossing and the negative consequences. We may be tempted to downplay or trivialize the impact. We may find ourselves wanting to attribute the negative impact not to the boundary crossing, but rather to the client’s condition, to the client faking or exaggerating, or to the client’s life circumstances. However, personal self-reflection and self-assessment, for us as psychologists, are imperatives, given the situation.

Talking over the situation with an experienced colleague who can provide honest feedback and thoughtful consultation may be very helpful. Even when we are able to be honest and non-defensive with ourselves, we may find it difficult to open up to a respected colleague about our work not going well, about the possibility that we may have made a mistake that ended up hurting a client. Will our colleague think less of us? Be critical? Question our competence and judgment? What sorts of feelings do we experience when we think of disclosing our blunders or our uncertainty over not knowing what to do? Do we feel anxious, embarrassed, ashamed, guilty, inadequate, panicked, or even afraid? Does some part of us feel like crying or running and hiding? Consultation about boundary crossings that have turned disruptive and perhaps harmful is likely to be helpful only to the extent that we can be honest with the consultant.

Listen carefully to the client. We may make all sorts of assumptions about how the client is reacting to the boundary crossing or the crossing’s negative consequence, but these may be completely incorrect. Too often, we may find ourselves starting to say something along the lines of “I know just how you feel,” or “I know you must just feel terrible.” Such statements are an example of guessing and can be leading for the client, when in fact we should be asking questions.

Try to see the matter from the client’s point of view. A client may experience a boundary crossing in a way that represents the opposite of what we intended, of what we anticipated, or of what the client anticipated. Empathizing with the client’s experience may be particularly difficult if the client is angry and accusing, has withdrawn from therapy, or has decompensated.

It is also very important to keep adequate, honest, and accurate records of this situation as it evolves. Just as we may find it difficult to disclose what happened and its implications to a respected colleague, it may be hard to make a written record of the situation, especially one that the client and others may see eventually. Aside from our responsibility to maintain adequate clinical records, therapists often find it remarkably useful to chart the events with as much clarity and honesty as possible. It helps us make sense of the situation and find ways to respond positively and constructively.

Is apologizing appropriate?

If you believe that you made a mistake, however well intentioned, consider apologizing.

There appears to be wide spread fear that to apologize to clients for our mistakes in handling boundaries is to take unnecessary and unwise risks by admitting guilt. Apologizing can make us feel vulnerable. What will happen now? Will the client accept our apology or will it just make things worse and enrage the individual? Will the client interpret our apology as disingenuous or inadequate? Will the client see us weak or incompetent? Will the apology plague us as admission of guilt in a formal licensing complaint or lawsuit?

If the boundary crossing was inadvertent or unintended, if we acted in what we thought was the client’s best interests, we may feel that we owe no apology. The client may be angry at us, failing to realize we have done far more good than harm, going overboard in reacting to what was a relatively minor slip on our part, not being as understanding as we’d like, or complaining in an accusatory, insistent, loud, repetitive, or whiny way. If any of these are the case, we may not believe the client deserves an apology, and wish the client would stop discussing it and move on — or drop out of therapy altogether and go bother some other practitioner.

There have been many instances when a client considered an ethics complaint but never pressed it because the psychologist apologized for the concern and made it right. Every one of us has experienced the healing power of the words, “I’m really sorry.” Apologizing is a personal, intimate act. Deciding whether or not to apologize requires the same care as any clinical and ethical judgment, taking the client, the context, and the nature of the boundary crossing itself into account.
THE INTERNET AND CLINICAL PRACTICE: ETHICAL STANDARDS AND ISSUES

Internet-based therapy

In recent years there has been a rapid proliferation of mental health services offered via the internet (Barnett, 2011; Rochlen, Zack, & Speyer, 2004). Scholars have indicated that the delivery of such services provides the benefits of increased accessibility, reduced stigmatization, and potential reduction in the costs of service provision (Berle et al., 2015). Recent research has indicated that as many as 90% of patients in some clinical samples prefer internet-based mental health services to face-to-face service delivery (Berle et al., 2015). With early reviews indicating the clinical efficacy of internet-based services (e.g., Ivarsson et al., 2014), such services are likely to grow in popularity and utilization in the future, thus bringing the issue of ethical standards of practice of internet-based services to the forefront.

In a recent study, Haberstroh et al. (2014) reviewed the state licensing boards for marriage and family therapists, professional counselors, psychologists, and social workers to determine the legal and ethical practice of internet-based therapy in the United States. The authors found no differences among the professions regarding whether they permitted internet-based therapy at the state level. Although no state licensing boards prohibited internet-based therapy, across professions, 32% of state licensing boards offered no direction for internet-based practice, and 28% of state licensing boards relied solely on national ethical codes. Given the nascent nature of licensure laws and ethical codes regarding internet-based therapy, it is thus more incumbent on mental health professionals to stay abreast of and be guided by the current professional literature in the area.

Recent literature has examined the similarities and differences between face-to-face and internet-based therapy in the application of ethical principles and standards. For example, Hertlein, Blumer, and Taube (2014) noted that 48% of the 227 mental health professionals they sampled intentionally sought information about current clients in non-crisis situations, and 28% accidentally discovered client information on the internet.

Similarly, Harris and Robinson-Kurpios (2014) found that a third of the 315 counseling and psychology graduate students sampled had used the internet to find information about a client, with the majority of them not having obtained informed consent from the client before conducting the internet search. Increased disclosure of client information was related to lower scores on ethical decision-making in the study.

Along these lines, Jordan et al. (2014) offered recommendations to be integrated into the professional ethical codes for mental health professionals to ensure the ethical use of social media in therapy. They noted for example that mental health professionals should be aware that social media in general blur boundaries, and mental health professionals should consider how clients may perceive the often ambiguous information generated through social media.

Social media in therapy

A separate but related area involves the use of social media in therapy. As mental health professionals increasingly use the internet for personal and professional activities, they risk having an increasing number of incidental contacts with clients online. Kolmes and Taube (2014) for example noted that 48% of the 227 mental health professionals they sampled intentionally sought information about current clients in non-crisis situations, and 28% accidentally discovered client information on the internet.

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Along these lines, Jordan et al. (2014) offered recommendations to be integrated into the professional ethical codes for mental health professionals to ensure the ethical use of social media in therapy. They noted for example that mental health professionals should be aware that social media in general blur boundaries, and mental health professionals should consider how clients may perceive the often ambiguous information generated through social media.

They further emphasized the following:

1. Informed consent, in that mental health professionals inform clients of their policy on the use of social media in therapy, including possible risks and communication styles.
2. Multiple relationships, in that mental health professionals become aware of the impact their self-disclosure on social media sites may have on their professional relationships.
3. Confidentiality, in that mental health professionals take additional care when utilizing social media, including the use of encryption software and a discussion of the risk of any confidentiality breach.
4. Professional competence and integrity, whereby mental health professionals receive training on the appropriate and ethical use of social media in therapy, including how social media impact individuals, couples, and families (Jordan et al., 2014).

An appendix contains a sample informed consent that uses social media, taken from Jordan et al. (2014).
Case examples

Let’s take a closer look at some examples from real life situations where a few ethical standards came into play. The names of the individuals involved have been changed, though the details are factual.

Case study #1
A psychologist was providing research services for an organization that asked the psychologist to include interviews of employees over six months to assess perceptions of the work environment and obtain qualitative data regarding their overall employee satisfaction. The organization provided the psychologist with a list of employees and their contact information. As participation was completely voluntary, the psychologist sent an e-mail to the employees listed describing the purpose of the study and requested volunteers to participate.

Since only seven employees responded with interest in participating, the sample was small but also served as a fair random sample. This group of individuals was to meet one-on-one with the psychologist in short, monthly interviews and responses would be analyzed during the six-month process.

At the first employee session, the employee informed the psychologist that they knew each other. While the psychologist could not recall ever seeing or interacting with this person, the employee described how his sister went to high school with the psychologist and that they had been in similar circles of friends. The psychologist recognized that the employee’s sister was still a close friend.

Another employee was eager to share his feelings about the organization during the interview. The psychologist quickly realized that this person was unhappy and very vocal about multiple issues and individuals within the organization. The psychologist also realized that the qualitative data the discussion provided could be extremely useful in identifying areas of organizational change.

During a meeting to discuss how the research effort was going after the first sessions, the organization asked the psychologist about any trends or issues that initially “stood out.” The psychologist conveyed the negative information about the organization and its leadership the second employee provided. The organization considered this harsh criticism. As this was difficult for the agency representatives to hear, they demanded to know which employee had expressed such “hostile” comments.

Question #1: What ethical dilemmas do you see within this situation?
Answer #1: There are primarily two described here:
1. The case participant who “knew” the psychologist. This is a potential conflict of interest and could have an impact on responses provided by the employee and the data received within the study.
2. The agency representatives demanding to know who made the harsh comments. This is a potential violation of confidentiality of the research participant.

Question #2: What should the psychologist do in response?
Answer #2: In the first situation, the psychologist thanked the employee for being interested and wanting to participate in the study, but explained that, because of the friendship with the employee’s sister, the psychologist would not be able to have that employee continue as a participant. The psychologist reinforced that the employee’s opinions of the organization mattered and encouraged expression of employee satisfaction or concerns through avenues such as discussion with their immediate supervisor or use of the employee suggestion box.

In the second situation, when asked to reveal the identity of the participant who made critical comments, the psychologist informed the agency representatives that doing so would be a violation of the APA Ethics Code. The representatives became angry and stated that they were the ones paying the psychologist for the study and if they wanted to know something, they should receive such information. After explaining the foundational principle of confidentiality of research participants and expressing appreciation for the partnership and opportunity to conduct the study, the psychologist informed the agency it would be impossible to continue to serve in this capacity if the agency expected the psychologist to violate ethical standards. In this situation, other representatives of the agency stepped in, apologized for their colleagues’ request, and the study continued as planned.

Case study #2
A psychologist was conducting forensic disability evaluations for a national organization. The organization did not have policies regarding obtaining informed consent from disability claimants, or the administration of psychological tests during evaluations. Although it was not a written policy of the organization, the more informal communication from the organization’s administration to the psychologist included pressure to complete the disability evaluations without informed consent and without psychological testing, as both were viewed as detracting from the expediency the organization valued strongly.

Question #1: What ethical dilemmas do you see within this situation?
Answer #1: The pressure applied to the psychologist by the organization’s administration conflicts with the first two of the following, while being related to the third:

Ethical standard 3.10 (Informed Consent), which reads as follows: “When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons except when conducting such activities without consent is mandated by law or governmental regulation or as otherwise provided in this Ethics Code.”

Ethical standard 9.01 (Bases for Assessments), which reads in part as follows: “Psychologists base the opinions contained in their recommendations, reports, and diagnostic or evaluative statements, including forensic testimony, on information and techniques sufficient to substantiate their findings.”

Ethical standard 1.03 (Conflicts Between Ethics and Organizational Demands), which reads as follows: “If the demands of an organization with which psychologists are affiliated or for whom they are working are in conflict with this Ethics Code, psychologists clarify the nature of the conflict, make known their commitment to the Ethics Code, and take reasonable steps to resolve the conflict consistent with the General Principles and Ethical Standards of the Ethics Code. Under no circumstances may this standard be used to justify or defend violating human rights.”

Question #2: What should the psychologist do in response?
Answer #2: As ethical standard 1.03 reads, “psychologists clarify the nature of the conflict, make known their commitment to the Ethics Code, and take reasonable steps to resolve the conflict consistent with the General Principles and Ethical Standards of the Ethics Code.” In this case, the psychologist provided the above ethical standards to the organization’s administration, while noting that maintaining licensure as a psychologist was a condition of employment with the organization.

It was noted that failure to uphold these ethical standards would not only be unethical and a disservice to the disability claimants and others, but could also put the psychologist’s professional license in jeopardy. Recognizing that it was incompatible for the organization to simultaneously require the psychologist to maintain a professional license, while pressuring the psychologist to practice in such a way as to endanger that license, the organization’s administration yielded and permitted the psychologist to obtain informed consent and utilize psychological testing as needed.
Case study #3
A psychologist conducted a forensic psychological evaluation of an individual for a referral source. After submitting the evaluation, the psychologist learns that the individual’s treating psychologist sent an unsolicited letter to the referral source, claiming that the evaluating psychologist’s evaluation should be given little or no consideration by the referral source, as it included psychological tests that were not normed on the population to which the individual belonged. The tests administered were in fact normed on the population to which the individual belonged, however.

Question #1: What ethical dilemmas do you see within this situation?

Answer #1: Ethical standard 1.03 (Informal Resolution of Ethical Violations) reads as follows: “When psychologists believe that there may have been an ethical violation by another psychologist, they attempt to resolve the issue by bringing it to the attention of that individual, if an informal resolution appears appropriate and the intervention does not violate any confidentiality rights that may be involved.”

Question #2: What should the psychologist do in response?

Answer #2: The psychologist who conducted the evaluation should provide clarification to the referral source regarding the nature of the test instruments used, specifically that they were in fact normed on the population to which the individual belonged. As stated in the ethical standard above, he or she should also attempt to resolve the issue informally with the other psychologist by bringing it to his or her attention.

Conclusion
There are many elements related to ethics within the field of psychology. As psychologists who provide a wide variety of services, you will encounter countless different situations and relationships. To ensure professional and sound judgment within your actions and interactions, you must be familiar with the general principles and ethical standards provided in the APA Ethics Code.

It is also important for you as psychologists to know what to do when you face an ethical dilemma or potential boundary issue. Failure to abide by the ethics guidelines could result in sanctions against you, termination of your APA membership, or legal ramifications brought on by complaints or potential lawsuits from a client or former client.

As a final reminder of what we all know, but sometimes forget: None of us needs to think through these questions on our own. We are part of a large and diverse community of skilled professionals who try to make the best decisions possible to help our clients. Both our decisions about boundaries and our professional conduct will benefit from these perspectives, strengths, empathy, constructive questioning, support, and caring for each other.

Appendix
The following informed consent developed by a mental health professional who uses social media is extracted from Jordan et al. (2014) and is included for educational purposes consistent with the current continuing education course. It illustrates the fairly wide-ranging issues that mental health professionals should consider when using social media in their clinical practice.

“I use e-mail for scheduling and occasional between-session contact. I will respond to e-mails within 1–7 days. Do not use e-mail to contact me about urgent matters. If you have an emergency, you should use the contacts described below (under Your Responsibilities). If you would like to schedule an appointment with me more than 1 week in advance, you will need to call me at XXX XXX XXXX. My e-mail account is secure and encrypted. However, while my e-mail is secure, yours may not be. You should be aware that third parties, including your e-mail or Internet provider, may have access to e-mails you send, meaning they are not confidential. Also, be mindful of who else may have access to your e-mail if you have a shared computer, shared e-mail account, or may leave your e-mail account open on an unattended computer.

I use a professional Facebook page for the purposes of advertising my services, connecting with colleagues, and interacting with community agencies and professional organizations. I do not offer online therapy. If you post a message on my Facebook page, or send me a personal message or e-mail, I will not respond online. Instead, I will discuss such contact with you in person at our next session. Further, you should be aware that if you “Like” my page, others will be able to see this connection and may make assumptions about our relationship, or may ask you directly about what our relationship is. If you make a public statement about your relationship with me, I will not be able to confirm or deny that relationship due to confidentiality issues.

I also have a professional LinkedIn page in order to connect with colleagues and professional organizations. I do not accept clients as connections on my LinkedIn profile; if you try to add me as a connection, I will ignore that request. I have this policy for two main reasons. First, I believe there is a need for healthy boundaries regarding my personal and professional life, and while LinkedIn is a professional website, there is a blurring personal and professional exchange which I would like to avoid. Second, in order to avoid compromising your confidentiality, I do not publicly link myself to my clients in any way.

In addition, I do have a personal Facebook profile; however, I do not accept friend requests from clients. If you do find my personal profile and attempt to contact me, I will not respond to any information I receive from you. If we have mutual friends and happen to view each other’s information, we can discuss possible implications and how we prefer to proceed at our next session.

Be aware that any information you post on social media, including Facebook or LinkedIn – even in a personal message – is not confidential, and is considered part of a public forum. This means anyone can legally access and share anything you post on these forums. Further, as in a therapy session, I am required by law to report anything I learn that leads me to believe that you are a danger to yourself or others; a child is being abused or neglected; or an elderly person is being abused or neglected.”
References

11. The Ethics Code is intended to provide guidance for psychologists and standards of _________.
   a. Therapeutic services.
   b. Professional conduct.
   c. Classroom techniques.
   d. Supervision.

12. The Ethics Code uses words such as reasonably, appropriate, and potentially, which help to:
   a. Allow professional judgment on the part of psychologists.
   b. Eliminate injustice or inequality that would occur without the modifier.
   c. Ensure applicability across the broad range of activities conducted by psychologists.
   d. All of the above.

13. In the event that the law and the standards set forth by the Ethics Code differ from one another, the psychologist is to adhere to:
   a. The law.
   b. The Ethics Code.
   c. The higher standard.
   d. The advice of a colleague.

14. The principle that requires psychologists to seek to promote accuracy, honesty, and truthfulness in the science, teaching, and practice of psychology is called:
   b. Fidelity.
   c. Integrity.
   d. Beneficence.

15. When psychologists become aware of personal problems that may interfere with their performing work-related duties adequately, they take appropriate measures, such as ________ and then determine whether they should limit, suspend, or terminate their work-related duties.
   a. Additional training.
   b. Obtaining professional consultation or assistance.
   c. Further research.
   d. Searching past practice.

16. When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they must:
   a. Complete testing of the service on college students.
   b. Obtain informed consent.
   c. Notify next of kin.
   d. Receive payment in advance.

17. Taking on a professional role when personal, scientific, professional, legal, financial or other interests or relationships could reasonably be expected to impair their objectivity, competence, or effectiveness in performing their functions as psychologists or could expose the person or organization with whom the professional relationship exists to harm or exploitation is called:
   a. Sexual harassment.
   b. Multiple roles.
   c. Crossing boundaries.
   d. Conflict of interest.

18. Psychologists may not ________ that are requested and needed for a client’s/patient’s emergency treatment solely because the psychologist has not received payment.
   a. Provide family information.
   b. Withhold records.
   c. Transfer documents.
   d. Provide invoices.

19. If a psychologist identifies a conflict of interest with a client, they should:
   a. Continue providing services.
   b. Refer the client to a qualified colleague.
   c. Notify the APA.
   d. Sign a new informed consent form.

20. In a very small and geographically remote town, psychologists may be more likely to:
   a. Conduct more research.
   b. Gather data on research participants from the local city hall.
   c. Experience multiple relationships.
   d. Find research assistants.
Chapter 3: Elderly Mental Health: Depression and Dementia

6 CE Hours

By: Leah Kulakowski, LMFT, Wade T. Lijewski, Ph.D. and Kathryn Brohl, MA, LMFT

Learning objectives

This workshop is designed to help you:

- Describe the most common types of mental health conditions and issues related to the diagnosis of mental illness in the elderly.
- Analyze the different forms and elements related to dementia / neurocognitive disorders.
- Assess the psychosocial factors that affect the elderly, such as living arrangements and cultural influences.
- Describe the influence of mental illness in the elderly on both the afflicted person and the caregiver, such as depression, and different prevention strategies.
- Facilitate different treatments of mental illness in the elderly and prevention, both through therapy and medications.
- Analyze issues regarding the different services available to assist the elderly mentally ill.

Elder mental health – Case examples

**Lillian** is an 84-year-old widow who lives with her married daughter. She is often unable to sleep and often stays awake at night with racing thoughts about her future, the health of her daughter, fears of moving to a nursing home and money. She frequently jokes about these racing thoughts with her friends, and knows they are not logical. However, she finds herself unable to control them. On occasion, she is frozen by panic during the day as well. Lillian is somewhat ashamed of these self-termed “silly thoughts,” and she often relies on prayer to stop them. However, they are becoming more and more difficult for her to control. During her last panic attack, she was sure she was having a heart attack and called 911. She is reluctant to leave the house for fear of having another panic attack in public and being embarrassed.

**Margaret** is a 69-year-old married woman who always amazed friends with her zeal for life. She traveled extensively and was active in a number of social groups and organizations. Nine months ago, Margaret fell and broke her pelvis. While recuperating in a nursing home, she and her husband made the decision to move in with their son and his wife following her release. But Margaret feels she cannot get back into her former pace even though she feels fine physically. For the last two months, she’s lost her appetite, sleeps excessively and has refused to meet friends for lunch or to attend her social groups. Although she is not sure why, she feels like “giving up” and dying. Her daughter-in-law is very concerned and wants Margaret to see a psychiatrist as she feels her mother-in-law is depressed. Embarrassed at the prospect of receiving psychiatric intervention, Margaret refuses and her husband agrees, both saying that psychiatrists are for crazy or weak people.

**William** is a 73-year-old married man who is often confused about his daily activities. He is having trouble remembering how to proceed with some tasks because he loses track of the sequencing of events. A retired carpenter, he now has problems remembering how to complete simple household repairs. In addition, he cannot always proceed with some tasks because he loses track of the sequencing of events. A retired carpenter, he now has problems remembering how to complete simple household repairs. In addition, he cannot always

The above cases examples illustrate mental health issues typical to the elderly. The most commonly diagnosed forms of mental illness in the elderly include depression, bipolar disorder, anxiety and non-Alzheimer’s dementia. In the previous examples it appears that:

- Lillian is suffering with anxiety.
- Margaret is probably struggling with depression.
- William may be either developing non-Alzheimer’s dementia, or suffering from severe side effects from taking medication.

While not uncommon, these examples are not normal, and need to be addressed and treated. Yet, many elderly people grew up during an era when mental health intervention was unacceptable. Consequently, persuading an elderly person to seek and accept psychotherapy and/or medication intervention is often very difficult.

The elder population is growing in large numbers in the United States, mainly due to aging Baby Boomers. Dr. Dipal Jeste, M.D., professor of psychiatry and neuroscience at the University of California, San Diego, notes that this population, born between 1946 and 1964, will turn 65 in 2011, resulting in 69 million persons over the age of 65. He also notes that there will be an estimated 15 million mentally ill senior citizens by 2030, compared to only 4 million in 1970 (Jeste, et al, 1999).

The numbers of persons 65 and older will be unprecedented in our cultural history in the United States. Part of the reason for the growing number of elderly persons with a mental illness is that so many more people are living much longer, due to innovations in prevention and health care. Consequently, for the first time in U.S. history, persons over 65 will soon outnumber those aged 30-44. Therefore, social services communities will be largely unprepared to handle large numbers of elderly persons with mental illness. The previous lack of large numbers of elderly persons with mental illness has also left researchers with few studies that are comprehensive enough to establish “best practices” for treating mental illness in this population (Jeste, Alexopolous, Bartels, et al., 1999).

Alzheimer’s disease has received a good bit of attention in past years, and most lay people would identify Alzheimer’s disease as a prominent issue confronting the elder population. However, while it is frequently diagnosed in the elderly, other mental illnesses such as depression and bipolar disorder receive little to no attention from the popular press and relatively little interest from researchers. Yet some mental health professionals, including researchers, have now recognized the
increasing numbers of elderly persons with mental illness and are calling for more research, as well as establishment of best practices. In the September 1999 issue of the Archives of General Psychiatry, researchers warned of an impending mental health crisis among the elderly because there are virtually no geriatric mental health specialists in this country who can handle the impending need for treating mentally ill elderly persons. The authors of this paper (Jeste, Alexopoulos, Bartels, et al.) noted that ageism also plays a role in under-diagnosing mental illness in the elderly due to the fact that many doctors dismiss depression and anxiety, simply because it is expected in this population. The author also alleges that the population in general and doctors in particular, have lowered expectations for the quality of life for the elderly and see little point in trying to improve their mental states. This negative attitude toward elder mental health was also found in a more recent study of physicians who were found to be knowledgeable about depression in the elderly, but saw it as an inevitable outcome of old age, and not necessarily a condition that should and could be successfully treated (Zulestra and Steitz, 2001). However, with recent changes in our society surrounding Medicaid coverage and Health Care Reform, the ability to adequately provide mental health services to the elderly remains to be seen.

How is “elderly” defined?

When we begin a discussion about the elderly, we need to determine what we mean when we say “elderly.” In general, we consider those adults over the age of 65 to be elderly. However, this age cut-off does not begin to explain differences between cohorts of elderly persons. Some elderly persons are disabled by the age of 65 while many others are active and working at their professions into the 80s or 90s. The Administration on Aging, the federal agency designated to serve the elderly, writes on its website that the elderly are defined as those who are a member of the aging populations comprised of people who are at least 60. The Administration on Aging (2009) notes several key issues related to the demographics of the elderly:

- Elderly persons comprise about 12.9 percent of the U.S. population.
- Elderly persons over the age of 85 make up 10 percent of the elderly.

Background

Mental illness is an important contributing factor to the disease burdens of the elderly. While the elderly do not appear to suffer a disproportionate share of most classifiable mental illnesses (depression or schizophrenia, for example), they do have a much higher prevalence of dementing illnesses such as Alzheimer’s disease and are subject to high rates of interpersonal losses. Despite substantial rates of morbidity, the proportion of elderly persons recognized as impaired and who actually receive adequate treatment is markedly lower than in younger groups. This under-provision of services persists despite the fact that treatment of mental illnesses such as depression or paranoia in the elderly has been shown to be as effective as treatment in younger groups. Under-treatment of mental illness in the elderly appears to be a significant factor in the high suicide rate among elderly men, as well as in the premature or inappropriate placement of elderly persons in nursing homes. According to Institute for Health Metrics and Evaluation (2010), over 20 percent of adults aged 60 and over suffer from a mental or neurological disorder (excluding headache disorders) and 6.6 percent of all disability (disability adjusted life years-DALYs) among over 60s is attributed to neurological and mental disorders.

The most common neuropsychiatric disorders in this age group are dementia and depression. Anxiety disorders affect 3.8 percent of the elderly population, substance use problems affect almost 1 percent and around a quarter of deaths from self-harm are among those aged 60 or above. Additionally, substance abuse problems among the elderly are often overlooked or misdiagnosed.

Research on mental illness in the elderly has been ignored and neglected until very recently. Even with the attention that has been given to the existence of large numbers of patients with Alzheimer’s disease, funding for research in comparison to the frequency and devastating nature of mental illness in the elderly remains inadequate.

Assessments of elder mental health

It is important to consider how mental health symptoms may present quite differently in elderly persons. Older adults tend to acquire psychosomatic complaints in the form of sleep disorders, poor appetite and multiple physical complaints. Their primary care physicians are often the professionals most likely to come in contact with elderly persons and need to be alert to potential depression (Chew-Graham, et al., 2008).

Historically in the United States, our society has treated the elderly population differently. For example, society has viewed and treated this group as less capable and has lowered its expectations for their quality of life (Clark, 1996). These cultural attitudes are undoubtedly an influence on the well-being of the elderly and could be a contributing factor in depression, but this has not yet been researched to any great degree.

In addition, it has been noted for decades that the elderly grapple with different issues due to their life-stage development. To paraphrase the Eriksonian psychosocial life stage theory, persons in the last stages of life are in the midst of a struggle to determine whether their life had meaning, if they contributed in some way to the world, and whether their life was truly worthwhile. Erikson noted that some elderly persons are in a great state of despair in which they are not certain life meant anything, are wracked with feelings of regret, unsure that they made a difference, and are frightened that they were failures, with little time left to make changes. These persons are in a state of anxiety as they struggle to accept that their death is imminent, clinging to and trying to make sense of their lives before dying (Erikson, 1966).
Depression has been the most widely researched mental illness in the elderly, and consequently, there is much more information available regarding depression than for other elderly mental health disorders.

Depression

The American Psychiatric Association has identified depression as the most commonly diagnosed mental disorder in the elderly, affecting about 5 percent of those individuals ages 65 and over. However, experts suspect that this number is a low estimate. Persons with the highest suicide rate in the United States are over the age of 65, and presumably, many of these suicides can be attributed to undiagnosed depression and lack of appropriate treatment. Over half of those elderly persons who could be classified as depressed receive no treatment for the condition, and only about 10 percent receive appropriate treatment (Katon, et al., 1992).

Diagnosing elder depression can be more difficult due to the existence of their physical problems. Feeling tired, loss of appetite and other physical complaints are all hallmarks of depression. However, in older persons these symptoms can have a physiological basis and may not be signs of depression. Consequently, doctors might dismiss the signs of depression as merely physiological. Depressed elderly persons do tend to have more physical than mental health complaints, and this often makes it difficult to determine whether a physical ailment or depression is the cause of their problems (Landefeld, et al, 2006).

Assessment of the elderly can utilize tools specifically designed to provide insight into the particular aspects of an elderly person’s mental state. The Geriatric Depression Scale asks such questions as “are you happy most of the time,” and “do you feel pretty worthless the way you are now?” and offers yes and no answer options. Answers are assigned a value of “1” or “0,” and an overall score of greater than “5” indicates depression (Sheikh and Yesavage, 1986).

According to the American Psychiatric Association (2013), the DSM-V outlines a few changes to the “what” and “how” depression is diagnosed:

- Major Depressive Disorder (MDD) is a medical illness that affects how you feel, think and behave causing persistent feelings of sadness and loss of interest in previously enjoyed activities. Depression can lead to a variety of emotional and physical problems. It is a chronic illness that usually requires long-term treatment.

- Using DSM-IV, clinicians were advised to refrain from diagnosing major depression in individuals within the first two months following the death of a loved one in what has been referred to as the “bereavement exclusion.” By advising clinicians not to diagnose depression in recently bereaved individuals, the DSM-IV bereavement exclusion suggested that grief somehow protected someone from major depression.

- As part of the ongoing study of major depression, the bereavement exclusion has been removed from DSM. This change from DSM-IV, would be replaced by notes in the criteria and text that caution clinicians to differentiate between normal grieving associated with a significant loss and a diagnosis of a mental disorder. Removing the bereavement exclusion helps prevent major depression from being overlooked and facilitates the possibility of appropriate treatment including therapy or other interventions.

- While the grieving process is natural and unique to each individual and shares some of the same features of depression like intense sadness and withdrawal from customary activities, grief and depression are also different in important aspects:
  - In grief, painful feelings come in waves, often intermixed with positive memories of the deceased; in depression, mood and ideation are almost constantly negative.
  - In grief, self-esteem is usually preserved; in MDD, corrosive feelings of worthlessness and self-loathing are common.
  - While many believe that some form of depression is a normal consequence of bereavement, MDD should not be diagnosed in the context of bereavement since diagnosis would incorrectly label a normal process as a disorder.

Research and clinical evidence have demonstrated that, for some people, the death of a loved one can precipitate major depression, as can other stressors, like losing a job or being a victim of a physical assault or a major disaster. However, unlike those stressors, bereavement is the only life event and stressor specifically excluded from a diagnosis of major depression in DSM-IV.

While bereavement may precipitate major depression in people who are especially vulnerable (i.e. they have already suffered a significant loss or have other mental disorders), when grief and depression co-exist, the grief is more severe and prolonged than grief without major depression. Despite some overlap between grief and MDD, they are different in important ways, and therefore they should be distinguished separately to enable people to benefit from the most appropriate treatment.

Changes to the Bereavement Exclusion

The diagnostic criteria proposed for the manual’s next edition includes language in the criteria for Major Depressive Disorder (MDD) to help differentiate between normal bereavement associated with Major Depressive Disorder and the “Bereavement Exclusion” a significant loss and a diagnosis of a mental disorder, which characterizes bereavement as a severe psychological stressor that can incite a major depressive episode even shortly after the loss of a loved one.

In DSM-IV, there was an exclusion criterion for a major depressive episode that was applied to depressive symptoms lasting less than 2 months following the death of a loved one (i.e., the bereavement exclusion). This exclusion is omitted in DSM-V for several reasons. The first is to remove the implication that bereavement typically lasts only 2 months when both physicians and grief counselors recognize that the duration is more commonly 1–2 years.

Second, bereavement is recognized as a severe psychosocial stressor that can precipitate a major depressive episode in a vulnerable individual, generally beginning soon after the loss. When major depressive disorder occurs in the context of bereavement, it adds an additional risk for suffering, feelings of worthlessness, suicidal ideation, poorer somatic health, worse interpersonal and work functioning, and an increased risk for persistent complex bereavement disorder, which is now described with explicit criteria in Conditions for Further Study in DSM-V Section III.

Thirdly, bereavement-related major depression is most likely to occur in individuals with past personal and family histories of major depressive episodes. It is genetically influenced and is associated with similar personality characteristics, patterns of comorbidity, and risks of chronicity and/or recurrence as non–bereavement-related major depressive episodes.

Finally, the depressive symptoms associated with bereavement-related depression respond to the same psychosocial and medication treatments as non–bereavement-related depression.
Causal factors

The causes of depression vary. The National Institute on Aging (2014) notes that depression can be preceded by a single event such as the death of a spouse or a serious illness. Strokes, heart disease, Parkinson’s disease or diabetes can also lead to depression because older people might be more physically worn down or worried that an illness will force them to undergo significant lifestyle changes.

There is no one cause of depression. For some people, a single event can bring on the illness. Depression often strikes people who felt fine but who suddenly find they are dealing with a death in the family. For some people, changes in the brain can affect mood and cause depression. Sometimes, those under a lot of stress, like caregivers, can feel depressed. Others become depressed for no clear reason.

People faced with life-changing health problems, such as cancer, diabetes, heart disease, stroke, or Parkinson’s disease, may become depressed. They may worry about how the illness will change their lives. They might be tired and unable to cope with things that make them sad. Treatment can help people manage their symptoms and improve their quality of life.

Genetics can also play a role. Studies show that depression may run in families. Children of depressed parents may be at a higher risk for depression. Also, depression tends to be a disorder that occurs more than once. Many older people who have been depressed in the past will be at an increased risk for becoming depressed again.

What to look for:

- An “empty” feeling, ongoing sadness, and anxiety.
- Tiredness, lack of energy.
- Loss of interest or pleasure in everyday activities, including sex.
- Sleep problems, including trouble getting to sleep, very early morning waking, and sleeping too much.

Elder depression statistics

According to the Geriatric Mental Health Foundation (2014), an estimated 6 percent of people ages 65 and older in a given year, or approximately 2 million individuals in this age group, have a diagnosable depressive illness. Depression affects approximately 25 percent of those with chronic illness and is particularly common in patients with ischemic heart disease, stroke, cancer, chronic lung disease, arthritis, Alzheimer’s disease, and Parkinson’s disease. Most disturbing among depression statistics is the fact that depression affects upwards of 50 percent of nursing home residents.

In 2002, the annual suicide rate for persons over the age of 65 was over 15 per 100,000 individuals; this number increases for those aged 75 to 84, with over 17 suicide deaths per every 100,000. The number rises even higher for those over age 85. Further, elder suicide may be under-reported by 40 percent or more. Not counted are “silent suicides,” like deaths from overdoses, self-starvation or dehydration, and “accidents.” The elderly have a high rate of completing suicide because they use firearms, hanging, and drowning. Double suicides involving spouses or partners occur most frequently among the aged. In 2010, the highest suicide rate (18.6) was among people 45 to 64 years old. The second highest rate (17.6) occurred in those 85 years or older.

Anxiety

Anxiety is a mental health condition characterized by muscle tension, irritability and insomnia.

Previously referred to as social phobia in the DSM-IV, it has been renamed social anxiety disorder in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). This change reflects a new and broader understanding of the condition in a variety of social situations.

In the past, social phobia primarily was diagnosed if an individual felt extreme discomfort or fear when performing in front of others. Research has shown that this definition is too narrow. With DSM-V, social anxiety can be diagnosed because of an individual’s response in a variety of social situations.

According to the American Psychiatry Association (2013), social anxiety disorder is about more than just shyness and can be considerably disabling. A diagnosis requires that a person’s fear or anxiety be out of proportion—in frequency and/or duration—to the actual situation. The symptoms must be persistent, lasting six months or longer. In DSM-IV, the timeframe was required only for children; DSM-V expands this criterion to include adults as well. The minimum symptom period reduces the possibility that an individual is experiencing only transient or temporary fear.

To be diagnosed with social anxiety disorder, the person must suffer significant distress or impairment that interferes with his or her ordinary routine in social settings, at work or school, or during other everyday activities. Unlike in DSM-IV, which requires that the individual recognize that his or her response is excessive or unreasonable, the DSM-V criteria shift that judgment to the clinician.

The clinician also will work to determine whether the person’s reaction might be explained by such reasons as a more general anxiety or an adverse response to certain medications. If the person suffers from
another medical condition - for instance, stuttering or obesity - the fear or anxiety experienced must be unrelated to the other condition or out of proportion to what would normally be felt.

It is noted by Salzmann (2004) that while clinical rates of anxiety in the elderly are lower overall than rates of anxiety in younger persons, many older adults experience anxiety that does not actually meet clinical diagnostic criteria, but is still troublesome to their overall well-being. He also noted that mixed presentations of anxiety and depression are the most common co-occurring mood disorder diagnoses among the elderly. Other researchers note similar findings. It has been shown that only 2 percent of the elderly fit the criteria for a diagnosis of anxiety, but 40 percent of those diagnosed with depression also presented with anxiety (Cassel, 2004). In addition, many elderly persons with dementia also have concurrent anxiety (Merck Manual, 2005).

It is, however, quite difficult to diagnose anxiety in the elderly. Beck and Stanley (1997) note that the nature of anxiety may change over the lifespan and may be quantified differently for the elderly. Whereas, in younger persons anxiety is characterized as actually facilitating performance, this has not been the case in studies of older persons. This difference in the outcomes of anxiety indicates that anxiety may have different characteristics in the elderly. In the elderly, anxiety most often takes the form of worry. Furthermore, there tend to be five areas of worry in the elderly:

- Family.
- Health.
- Money.
- Work.
- Miscellaneous.

Worries about health tended to be the most common in the elderly.

Harem et al. (2002) noted that the number of elderly persons visiting their doctors seeking treatment for anxiety disorders increased dramatically from 1985 to 1998. Furthermore, they determined that while a number of elderly persons utilized psychiatrists, a large number of elderly persons went to their primary care physicians for treatment and the primary care physicians were far less likely than psychiatrists to offer medication and/or psychotherapy. Consequently, it appears that under-recognition and under-treatment are continuing problems with anxiety disorders in the elderly. Researchers argue that anxiety is highly prevalent yet gets little attention from researchers compared to depression (Lenze, et al., 2000). Beck and Stanley (1997) also noted that anxiety disorders tended to be much more common than affective disorders and major depression.

The Penn State Worry Questionnaire has been utilized in the assessment and diagnosis of worry in younger adults and was recently assessed as a screening instrument for elderly persons. The instrument did require some modifications to fit well with the diagnosis of anxiety in the elderly. The items that were removed were primarily reverse items (i.e., the question “I never worry about anything,” required a higher level of cognitive processing than the non-reversed item, “My worry overwhelms me,” which is a basic agree or disagree question). The cognitive abilities required to answer a reversed item may be harder for an elderly person with some cognitive impairments and lead to answers that did not reflect the true feelings of the elderly person being assessed (Hopko, et al., 2003).

In addition, the Beck Anxiety Inventory (BAI) has also been found to be effective in the assessment of generalized anxiety disorder in the elderly (Wetherell and Gatz, 2005).

It is important to note that anxiety symptoms in the elderly are often the result of medical conditions as well. For example, cardiac problems can lead to shortness of breath and heart palpitations. Hyperthyroidism can also cause agitation and anxiety (Merck Manual, 2005).

Of all of the anxiety disorders studied in the elderly, generalized anxiety disorder has been the most widely researched. There has been very little systematic investigation of other forms of anxiety disorders, such as post-traumatic stress disorder (PTSD), or phobic disorders. In reviewing past studies of PTSD, researchers noted that the symptoms are similar in the elderly and younger persons that include:

- Reliving of the trauma.
- Avoidance of situations that remind a person of the trauma.
- Hyper-vigilance.

PTSD in the elderly can run a chronic course over a lifetime, with intermittent reappearances, or can start in later years as the result of such events as natural disasters, or being victimized by crime. There has been very little study of PTSD in the elderly, regardless of the course or cause of the disorder (Weintraub and Ruskin, 1999). In a similar fashion, there are very few studies of phobias in the elderly. The small amount of research in this area indicates that the elderly do sometimes present with phobias such as traveling, being alone, insects and close spaces (Lindsey, Briggs and Murphy, 1989).

Bipolar disorder

While bipolar disorders are typically thought to emerge relatively early in life, it is estimated by the University of Pittsburg Medical Center that 10 percent of elderly persons with bipolar disorder develop the disorder for the first time after the age of 50 (www.late-life-depression.org). There is a paucity of research on late-onset bipolar disorder, but the early research has indicated that those with late-onset bipolar have a history of major depression. In the manic episodes, elderly persons can present with increased activity, suspiciousness of others, irritability, trouble sleeping and grandiose thoughts. Manic episodes can then rapidly cycle into depression and pose a strong risk of suicide during these abrupt shifts.

In the elderly, bipolar disorder often presents with symptoms of mental confusion and disorientation, and is often misdiagnosed, as it is mistaken for dementia (Medscape, 1998). Oftentimes, elderly persons show less grandiosity and more depressive symptoms, which can also make the disorder more difficult to correctly diagnose (Finn, 2006).

Bipolar disorder in persons over the age of 65 is thought to be relatively rare, occurring in less than 1 percent of the population. However, it is suspected that the disorder is under-diagnosed (Sajatovic and Kales, 2006). Although it is less prevalent than depression, the overall impact of a person with a bipolar disorder is far greater on the mental health system. A study that compared the hospitalization rates and mental health utilization rates of those elderly persons with bipolar disorder as compared to those with depression demonstrated that elderly persons with a bipolar disorder were four times as likely to be hospitalized and to use mental health services (Bartel, Forester, Miles and Joyce, 2000).

To enhance the accuracy of diagnosis and facilitate earlier detection in clinical settings, the DSM-V revised Criterion A for manic and hypomanic episodes, which now includes an emphasis on changes in activity and energy as well as mood. The DSM-IV diagnosis of bipolar I disorder, mixed episode, requiring that the individual simultaneously meet full criteria for both mania and major depressive episode, has
beated than can be applied to episodes of mania or hypomania when depressive features are present and to episodes of depression in the context of major depressive disorder or bipolar disorder when features of mania/hypomania are present (APA, 2013).

Substance abuse

Overall, the aging Baby Boomer population has historically used alcohol and drugs more frequently than previous generations, and higher numbers of them are entering their senior years with longstanding alcohol and drug abuse issues. The numbers of elderly substance abusers will only increase over the next few years. Consequently, there will be unprecedented numbers of elderly persons who need treatment for alcohol and drug abuse (NHSDA, 2000).

However, substance abuse is one of the most under-diagnosed disorders in the elderly. Elderly persons are often retired and consequently do not have accountability to an employer who might notice their overuse of chemical substances. The Hazelden Treatment Center notes on its website www.hazelden.org that about 17 percent of persons in this country who are over the age of 60 have issues with substance abuse, including the misuse of prescription drugs. The center notes that some of these persons are chronic abusers who have had lifelong problems, but others develop problems later in life, particularly with painkillers and other prescription medications.

Just as risk factors are different for elderly persons with substance abuse issues, so are the issues with diagnosis of substance abuse. Liberto and Oslin (1995) indicate in their research that late-onset substance abusers tend to respond fairly well to treatment, but are more likely to go undiagnosed, as physicians are not well trained to look for late-onset substance abuse. Substance abuse in the elderly can be hidden by physical illnesses, dementia or depression (Reid and Anderson, 1997). O’Connell, et al., (2003), notes that screening instruments for substance abuse have been designed for younger people and fail to take into account many life-stage differences between younger and older people.

The recently updated DSM-V outlines diagnosis criteria that differs slightly from the previous DSM-IV. Substance use disorder in DSM-V combines the DSM-IV categories of substance abuse and substance dependence into a single disorder measured on a continuum from mild to severe (APA, 2013). Each specific substance (other than caffeine, which cannot be diagnosed as a substance use disorder) is addressed as a separate use disorder (e.g., alcohol use disorder, stimulant use disorder, etc.), but nearly all substances are diagnosed based on the same overarching criteria. In this overarching disorder, the criteria have not only been combined, but strengthened. Whereas a diagnosis of substance abuse previously required only one symptom, mild substance use disorder in DSM-V requires two to three symptoms from a list of 11. Drug craving will be added to the list, and problems with law enforcement will be eliminated because of cultural considerations that make the criteria difficult to apply internationally.

In DSM-IV, the distinction between abuse and dependence was based on the concept of abuse as a mild or early phase and dependence as the more severe manifestation. In practice, the abuse criteria were sometimes quite severe. The revised substance use disorder, a single diagnosis, will better match the symptoms that patients experience.

Additionally, the diagnosis of dependence caused much confusion. Most people link dependence with “addiction” when in fact dependence can be a normal body response to a substance.

Prescription drugs and the elderly

The abuse and misuse of prescriptions drugs among elderly persons is a legitimate concern for mental health practitioners. Psychotropic medications are often times inappropriate for elderly persons to consume because they tend to increase confusion, sleep disorders and falls, and yet 50 percent of all psychotropic drug prescriptions are given to seniors. Elderly persons also have problems understanding instructions on taking medications properly, and it has been demonstrated that doctors do not spend adequate time explaining medication issues to their elderly patients. Even when they understand the instructions, elderly people often fail to take their medications appropriately, partly because they lack the money to buy prescriptions and they attempt to save money by cutting back on their medications (Brazeau, 2001; Carlson, 1994).

Alcohol abuse in the elderly

There are also further distinctions with types of problem drinkers in the elder population. In general, problem drinkers are divided into two types: early-onset and late-onset. Given their much shorter alcohol-problem history, late-onset alcoholics are further differentiated from their early-onset counterparts as less likely to have alcohol-related health problems or to experience physical withdrawal, with a lower frequency of intoxication and with more stable emotional, financial, and social situations (Schonfeld and Dupree 1991).

One primary distinguishing feature of late-onset alcoholism is its apparent development in response to stress, particularly stress connected with aging (Akers and La Greca 1991). Consequently, late-onset alcoholics are also known as “reactive” drinkers (Gomberg, 1990). Stressors associated with aging also have been linked to heavier drinking among early-onset alcoholics and reduced drinking by the elderly with a long-standing alcohol problem (Atkinson, 1984).

As Blazer and his colleagues (1986) point out, the primary distinguishing feature in late-onset alcoholics is their initiation of problem drinking as seniors. This particular feature identifies earlier onset elderly alcoholics from late-onset alcoholics. Mulford and Fitzgerald (1992) found that the late-onset problem drinkers included in their study of DWI offenders would not meet DSM-II or other clinical diagnostic criteria for alcoholism, a factor that may make them easier to treat but also less likely to be identified as in need of treatment. The lowered alcohol tolerance of the aging body may play a role here, making drinking a problem for persons whose consumption levels may be unchanged or relatively moderate.
According to O’Connell, Chin, Cunningham and Lawler (2003), bereavement, (as elderly persons lose friends and family members) as well as the difficulty in adjusting to a loss of role identity upon retirement, are risk factors in substance abuse. Menninger (2002) also notes that economic difficulties from living on a fixed income and medical problems are all risk factors for substance abuse. These risk factors are quite different than for younger people who are facing different life-cycle issues. Those most likely to abuse alcohol in the elderly population are males who are under 75 years of age, from lower socioeconomic backgrounds with less education and are widowed or divorced. Interestingly, widowhood was not cited as a risk factor for women (Carlson, 1994).

Atkinson (2008) gives a comprehensive outline of risk factors for substance abuse:

- **Predisposing factors:**
  - Family history (alcohol).
  - Previous substance abuse.
  - Previous pattern of substance consumption (individual and cohort).
  - Personality traits (sedative-hypnotics, anxiolytics).

**Dementia**

What is dementia?

According to the recently published DSM-V, dementia is a neurocognitive disorder. In fact, the term “dementia” has been eliminated and replaced with major or minor neurocognitive disorder. It was believed that the word dementia was stigmatizing toward older individuals and not well accepted by younger individuals with HIV dementia. The new term focuses on the decline from a previous level of functioning as opposed to a deficit (APA, 2013).

Further, the dementia chapter in DSM-V is titled “Neurocognitive Disorders,” whereas in DSM-IV it was titled “Delirium, Dementia, Amnestic, and Other Cognitive Disorders.” According to DSM-V, changes for delirium include the following:

1. Disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and orientation to the environment.
2. Disturbance develops over a short period of time (usually hours to a few days) and represents an acute change from baseline that is not solely attributable to another neurocognitive disorder and tends to fluctuate in severity during the course of a day.
3. A change in an additional cognitive domain, such as memory deficit, disorientation, or language disturbance, or perceptual disturbance that is not better accounted for by a preexisting, established, or evolving other neurocognitive disorder.
4. Disturbances in No. 1 and 3 must not occur in the context of a severely reduced level of arousal, such as coma.

The old dementia terminology required the presence of memory impairment for all of the various dementias. It has been recognized that memory impairment is not the first domain to be affected in all of the other diseases that cause a neurocognitive disorder. For instance, in frontal temporal disorder, language could be affected first. This change in terminology will require that all diagnosing healthcare professionals first establish the presence of a neurocognitive disorder and then determine whether the neurocognitive disorder is minor or major.

In DSM-V, a minor neurocognitive disorder is defined by the following:

- There is evidence of modest cognitive decline from a previous level of performance in one or more of the domains outlined above based on the concerns of the individual, a knowledgeable informant, or the clinician; and a decline in neurocognitive performance, typically involving test performance in the range of one and two standard deviations below appropriate norms (i.e., between the third and 16th percentiles) on formal testing or equivalent clinical evaluation.

- The cognitive deficits are insufficient to interfere with independence (e.g., instrumental activities of daily living, like more complex tasks such as paying bills or managing medications, are preserved), but greater effort, compensatory strategies, or accommodation may be required to maintain independence.

- The cognitive deficits do not occur exclusively in the context of a delirium.

- The cognitive deficits are not primarily attributable to another mental disorder (e.g., major depressive disorder, schizophrenia).

In DSM-V, a major neurocognitive disorder is defined by the following:

- There is evidence of substantial cognitive decline from a previous level of performance in one or more of the domains outlined above based on the concerns of the individual, a knowledgeable informant, or the clinician; and a decline in neurocognitive performance, typically involving test performance in the range of two or more standard deviations below appropriate norms (i.e., below the third percentile) on formal testing or equivalent clinical evaluation.

- The cognitive deficits are sufficient to interfere with independence (i.e., requiring minimal assistance with instrumental activities of daily living).

- The cognitive deficits do not occur exclusively in the context of a delirium.

- The cognitive deficits are not primarily attributable to another mental disorder (e.g., major depressive disorder, schizophrenia).

When diagnosing a minor neurocognitive disorder, one and two standard deviations below appropriate norms are required. In diagnosing a major neurocognitive disorder, two or more standard deviations below appropriate norms are required. This need for cognitive testing will add to patient cost since neither the Mini Mental State Examination nor the Montreal Cognitive Assessment, the common screening tools utilized by many clinicians, yields results in standard deviations. In addition, the requirement that the cognitive deficits are insufficient to interfere with independence is subjective and will cause additional confusion for both clinicians and patients.

Having determined whether a patient has a major or minor neurocognitive disorder, the healthcare professional making the diagnosis must then decide on the etiological subtype of the major or minor neurocognitive disorder. The subtypes that have been listed
What conditions can cause neurocognitive disorders?

Doctors have identified many other conditions that can cause dementia or dementia-like symptoms. Many of these conditions are reversible with appropriate treatment.

**Reactions to medications** – Medications can sometimes lead to reactions or side effects that mimic dementia. These dementia-like effects can occur in reactions to just one drug, or they can result from drug interactions. They may have a rapid onset, or they may develop slowly over time.

**Metabolic problems and endocrine abnormalities** – Thyroid problems can lead to apathy, depression or dementia. Hypoglycemia, a condition in which there is not enough sugar in the bloodstream, can cause confusion or personality changes. Too little or too much sodium or calcium can also trigger mental changes. Some people have an impaired ability to absorb vitamin B12, which creates a condition called pernicious anemia that can cause personality changes, irritability or depression. Tests can determine whether any of these problems are present.

**Nutritional deficiencies** – Deficiencies of thiamine (vitamin B1) frequently result from chronic alcoholism and can seriously impair mental abilities, in particular memories of recent events. Severe deficiency of vitamin B6 can cause a neurological illness called pellagra that may include dementia. Deficiencies of vitamin B12 also have been linked to dementia in some cases. Dehydration can also cause mental impairment that can resemble dementia.

**Infections** – Many infections can cause neurological symptoms, including confusion or delirium, due to fever or other side effects of the body’s fight to overcome the infection. Meningitis and encephalitis, which are infections of the brain or the membrane that covers it, can cause confusion, sudden severe dementia, withdrawal from social interaction, impaired judgment or memory loss. Untreated syphilis also can damage the nervous system and cause dementia. In rare cases, Lyme disease can cause memory or thinking difficulties. People in the advanced stages of AIDS also may develop a form of dementia (see HIV-associated dementia, in this chapter). People with compromised immune systems, such as those with leukemia and AIDS, may also develop an infection called progressive multifocal leukoencephalopathy (PML). PML is caused by a common human polyomavirus, JC virus, and leads to damage or destruction of the myelin sheath that covers nerve cells. PML can lead to confusion, difficulty with thinking or speaking, and other mental problems.

**Subdural hematomas** – Subdural hematomas, or bleeding between the brain’s surface and its outer covering (the dura), can cause dementia-like symptoms and changes in mental function.

**Poisoning** – Exposure to lead, other heavy metals or other poisonous substances can lead to symptoms of dementia. These symptoms may or may not resolve after treatment, depending on how badly the brain is damaged. People who have abused substances such as alcohol and recreational drugs sometimes display signs of dementia even after the substance abuse has ended. This condition is known as substance-induced persisting dementia.

**Brain tumors** – In rare cases, people with brain tumors may develop dementia because of damage to their brains. Symptoms may include changes in personality, psychotic episodes or problems with speech, language, thinking and memory.

**Anoxia** – Anoxia and a related term, hypoxia, are often used interchangeably to describe a state in which there is a diminished supply of oxygen to an organ’s tissues. Anoxia may be caused by many different problems, including heart attack, heart surgery, severe asthma, smoke or carbon monoxide inhalation, high-altitude exposure, strangulation, or an overdose of anesthesia. In severe cases of anoxia, the patient may be in a stupor or a coma for periods ranging from hours to days, weeks or months. Recovery depends on the severity of the oxygen deprivation. As recovery proceeds, a variety of psychological and neurological abnormalities, such as dementia or psychosis, may occur. The person also may experience confusion, personality changes, hallucinations or memory loss.

**Heart and lung problems** – The brain requires a high level of oxygen in order to carry out its normal functions. Therefore, problems such as chronic lung disease or heart problems that prevent the brain from receiving adequate oxygen can starve brain cells and lead to the symptoms of dementia.

What are the risk factors for neurocognitive disorder?

Researchers have identified several risk factors that affect the likelihood of developing one or more kinds of dementia. Some of these factors are modifiable, while others are not.

- **Age** – The risk of AD, vascular dementia and several other dementias goes up significantly with advancing age.
- **Genetics/family history** – As described in the section “What causes dementia?” researchers have discovered a number of genes that increase the risk of developing AD. Although people with a family history of AD are generally considered to be at heightened risk of developing the disease themselves, many people with a family history never develop the disease and many without a family history of the disease do get it. In most cases, it is still impossible to predict a specific person’s risk of the disorder based on family history alone. Some families with CJD, GSS, or fatal familial insomnia have mutations in the prion protein gene, although these disorders can also occur in people without the gene mutation. Individuals with these mutations are at significantly higher risk of developing these forms of dementia. Abnormal genes are also clearly implicated as risk factors in Huntington’s disease, FTDP-17, and several other kinds of dementia. These dementias are described in the section, “What are the different kinds of dementia?”
- **Smoking and alcohol use** – Several recent studies have found that smoking significantly increases the risk of mental decline and dementia. People who smoke have a higher risk of atherosclerosis and other types of vascular disease, which may be the underlying causes for the increased dementia risk. Studies also have found that drinking large amounts of alcohol appears to increase the risk of dementia. However, other studies have suggested that people who drink moderately have a lower risk of dementia than either those who drink heavily or those who completely abstain from drinking.
- **Atherosclerosis** – Atherosclerosis is the buildup of plaque – deposits in fatty substances, cholesterol and other matter – in the inner lining of an artery. Atherosclerosis is a significant risk factor for vascular dementia because it interferes with the delivery of blood to the brain and can lead to stroke. Studies have also found a possible link between atherosclerosis and AD.
- **Cholesterol** – High levels of low-density lipoprotein (LDL), the so-called bad form of cholesterol, appear to significantly increase a
person’s risk of developing vascular dementia. Some research has also linked high cholesterol to an increased risk of AD.

- Plasma homocysteine – Research has shown that a higher-than-average blood level of homocysteine – a type of amino acid – is a strong risk factor for the development of AD and vascular dementia.
- Diabetes – Diabetes is a risk factor for both AD and vascular dementia. It is also a known risk factor for atherosclerosis and stroke, both of which contribute to vascular dementia.
- Mild cognitive impairment – While not all people with mild cognitive impairment develop dementia, people with this condition do have a significantly increased risk of dementia compared to the rest of the population. One study found that approximately 40 percent of people over age 65 who were diagnosed with mild cognitive impairment developed dementia within three years.
- Down syndrome – Studies have found that most people with Down syndrome develop characteristic AD plaques and neurofibrillary tangles by the time they reach middle age. Many, but not all, of these individuals also develop symptoms of dementia.

### How are neurocognitive disorders diagnosed?

Doctors employ a number of strategies to diagnose dementia. It is important that they rule out any treatable conditions, such as depression, normal pressure hydrocephalus or vitamin B12 deficiency, which can cause similar symptoms.

Early, accurate diagnosis of dementia is important for patients and their families because it allows early treatment of symptoms. For people with AD or other progressive dementias, early diagnosis may allow them to plan for the future while they can still help to make decisions. These people also may benefit from drug treatment.

The “gold standard” for diagnosing dementia, autopsy, does not help the patient or caregivers. Therefore, doctors have devised a number of techniques to help identify dementia with reasonable accuracy while the patient is still alive.

### Patient history

Doctors often begin their examination of a patient suspected of having dementia by asking questions about the patient’s history. For example, they may ask how and when symptoms developed and about the patient’s overall medical condition. They also may try to evaluate the patient’s emotional state, although patients with dementia often may be unaware of or in denial about how their disease is affecting them. Family members also may deny the existence of the disease because they do not want to accept the diagnosis and because, at least in the beginning, AD and other forms of dementia can resemble normal aging. Therefore, additional steps are necessary to confirm or rule out a diagnosis of dementia.

### Physical examination

A physical examination can help rule out treatable causes of dementia and identify signs of stroke or other disorders that can contribute to dementia. It can also identify signs of other illnesses, such as heart disease or kidney failure, that can overlap with dementia. If a patient is taking medications that may be causing or contributing to his or her symptoms, the doctor may suggest stopping or replacing some medications to see if the symptoms go away.

### Neurological evaluations

Doctors will perform a neurological examination, looking at balance, sensory function, reflexes, and other functions, to identify signs of conditions – for example, movement disorders or stroke – that may affect the patient’s diagnosis or are treatable with drugs.

### Cognitive and neuropsychological tests

Doctors use tests that measure memory, language skills, math skills and other abilities related to mental functioning to help them diagnose a patient’s condition accurately. For example, people with AD often show changes in so-called executive functions (such as problem-solving), memory and the ability to perform once automatic tasks.

Doctors often use a test called the Mini-Mental State Examination (MMSE) to assess cognitive skills in people with suspected dementia. This test examines orientation, memory and attention as well as the ability to name objects, follow verbal and written commands, write a sentence spontaneously and copy a complex shape. Doctors also use a variety of other tests and rating scales to identify specific types of cognitive problems and abilities.

### Brain scans

Doctors may use brain scans to identify strokes, tumors or other problems that can cause dementia. Also, cortical atrophy – degeneration of the brain’s cortex (outer layer) – is common in many forms of dementia and may be visible on a brain scan. The brain’s cortex normally appears very wrinkled, with ridges of tissue (called gyri) separated by “valleys” called sulci. In individuals with cortical atrophy, the progressive loss of neurons causes the ridges to become thinner and the sulci to grow wider. As brain cells die, the ventricles (or fluid-filled cavities in the middle of the brain) expand to fill the available space, becoming much larger than normal. Brain scans also can identify changes in the brain’s structure and function that suggest AD.

The most common types of brain scans are computed tomographic (CT) scans and magnetic resonance imaging (MRI). Doctors frequently request a CT scan of the brain when they are examining a patient with suspected dementia. These scans, which use X-rays to detect brain structures, can show evidence of brain atrophy, strokes and transient ischemic attacks (TIAs), changes to the blood vessels and other problems such as hydrocephalus and subdural hematomas. MRI scans use magnetic fields and focused radio waves to detect hydrogen atoms in tissues within the body. They can detect the same problems as CT scans, but they are better for identifying certain conditions, such as brain atrophy and damage from small TIAs.

Doctors also may use electroencephalograms (EEGs) in people with suspected dementia. In an EEG, electrodes are placed on the scalp over several parts of the brain in order to detect and record patterns of electrical activity and check for abnormalities. This electrical activity can indicate cognitive dysfunction in part or all of the brain. Many patients with moderately severe to severe AD have abnormal EEGs. An EEG may also be used to detect seizures, which occur in about 10 percent of AD patients, as well as in many other disorders. EEGs also can help diagnose CJD.

Several other types of brain scans allow researchers to watch the brain as it functions. These scans, called functional brain imaging, are not often used as diagnostic tools but are important in research, and they may ultimately help identify people with dementia earlier than is currently possible. Functional brain scans include functional MRI (FMRI), single photon-emission computed technology (SPECT), positron emission tomography (PET), and magnetoencephalography (MEG). FMRI uses radio waves and a strong magnetic field to measure the metabolic changes that take place in active parts of the brain. SPECT shows the distribution of blood in the brain, which generally increases with brain activity. PET scans can detect changes in glucose metabolism, oxygen metabolism and blood flow, all of which can reveal abnormalities of brain function. MEG shows the electromagnetic fields produced by the brain’s neuronal activity.

### Laboratory tests

Doctors may use a variety of laboratory tests to help diagnose dementia and/or rule out other conditions, such as kidney failure, that can contribute to symptoms. A partial list of these tests includes a complete blood count, blood glucose test, urinalysis, drug and alcohol tests (toxicology screen), cerebrospinal fluid analysis (to rule out specific infections that can affect the brain), and analysis of thyroid
and thyroid-stimulating hormone levels. A doctor will order only the tests that he or she feels are necessary or likely to improve the accuracy of a diagnosis.

**Psychiatric evaluation**
A psychiatric evaluation may be obtained to determine whether depression or another psychiatric disorder may be causing or contributing to a person’s symptoms.

**Pre-symptomatic testing**
Testing people before symptoms begin to determine whether they will develop dementia is not possible in most cases. However, in disorders such as Huntington’s where a known gene defect is clearly linked to the presence of NCD, distinguishing between the major and mild levels of impairment separately. The major NCD syndrome provides consistency as it is considered a form of dementia. In the early stages, the most common symptom is difficulty in remembering recent events, known as short term memory loss. When AD is suspected, the diagnosis is usually confirmed with tests that evaluate behavior and thinking abilities, often followed by a brain scan if available; however, examination of brain tissue is required for a definitive diagnosis. As the disease advances, symptoms can include confusion, irritability, aggression, mood swings, trouble with language, and long-term memory loss.

DSM-V now recognizes a less severe level of cognitive impairment, mild NCD, which is a new disorder that permits the diagnosis of less disabling syndromes that may nonetheless be the focus of concern and treatment (APA, 2013). Diagnostic criteria are provided for both major NCD and mild NCD, followed by diagnostic criteria for the different etiological subtypes. An updated listing of neurocognitive domains is also provided in DSM-V, as these are necessary for establishing the presence of NCD, distinguishing between the major and mild levels of impairment, and differentiating among etiological subtypes.

Although the threshold between mild NCD and major NCD is inherently arbitrary, there are important reasons to consider these two levels of impairment separately. The major NCD syndrome provides consistency with the rest of medicine and with prior DSM editions and necessarily remains distinct to capture the care needs for this group. Although the mild NCD syndrome is new to DSM-V, its presence is consistent with its use in other fields of medicine, where it is a significant focus of care and research, notably in individuals with Alzheimer’s disease, cerebrovascular disorders, HIV, and traumatic brain injury.

Most of the drugs currently approved by the U.S. Food and Drug Administration (FDA) for AD fall into a category called cholinesterase inhibitors. These drugs slow the breakdown of the neurotransmitter acetylcholine, which is reduced in the brains of people with AD. Acetylcholine is important for the formation of memories, and it is used in the hippocampus and the cerebral cortex, two brain regions that are affected by AD. There are currently four cholinesterase inhibitors approved for use in the United States: tacrine (Cognex), donepezil (Aricept), rivastigmine (Exelon), and galantamine (Reminyl). These drugs temporarily improve or stabilize memory and thinking skills in some individuals. Many studies have shown that cholinesterase inhibitors help to slow the decline in mental functions associated with AD, and that they can help reduce behavioral problems and improve the ability to perform everyday tasks. However, none of these drugs can stop or reverse the course of AD.

A fifth drug, memantine, (Namenda) is also approved for use in the United States. Unlike other drugs for AD, which affect acetylcholine levels, memantine works by regulating the activity of a neurotransmitter called glutamate that plays a role in learning and memory. Glutamate activity is often disrupted in AD. Because this drug works differently from cholinesterase inhibitors, combining memantine with other AD drugs may be more effective than any single therapy. One controlled clinical trial found that patients receiving donepezil plus memantine had better cognition and other functions than patients receiving donepezil alone.

Doctors may also prescribe other drugs, such as anticonvulsants, sedatives and antidepressants, to treat seizures, depression, agitation, sleep disorders and other specific problems that can be associated with dementia. In 2005, research showed that use of “atypical” antipsychotic drugs such as olanzapine and risperidone, to treat behavioral problems in elderly people with dementia was associated with an elevated risk of death in these patients. Most of the deaths were caused by heart problems or infections. The FDA has issued a public health advisory to alert patients and their caregivers to this safety issue.

**Alzheimer’s disease**

Alzheimer’s disease falls within the category of neurocognitive disorders, as it is considered a form of dementia. In the early stages, the most common symptom is difficulty in remembering recent events, known as short term memory loss. When AD is suspected, the diagnosis is usually confirmed with tests that evaluate behavior and thinking abilities, often followed by a brain scan if available; however, examination of brain tissue is required for a definitive diagnosis. As the disease advances, symptoms can include confusion, irritability, aggression, mood swings, trouble with language, and long-term memory loss.

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**Vascular dementia**

There is no standard drug treatment for vascular dementia, although some of the symptoms, such as depression, can be treated. Most other treatments aim to reduce the risk factors for further brain damage. However, some studies have found that cholinesterase inhibitors, such as galantamine and other AD drugs, can improve cognitive function and behavioral symptoms in patients with early vascular dementia.
The progression of vascular dementia can often be slowed significantly or halted if the underlying vascular risk factors for the disease are treated. To prevent strokes and TIAs, doctors may prescribe medicines to control high blood pressure, high cholesterol, heart disease and diabetes. Doctors also sometimes prescribe aspirin, warfarin or other drugs to prevent clots from forming in small blood vessels. When patients have blockages in blood vessels, doctors may recommend surgical procedures, such as carotid endarterectomy, stenting or angioplasty, to restore the normal blood supply. Medications to relieve restlessness or depression or to help patients sleep better may also be prescribed.

Other dementias

Some studies have suggested that cholinesterase inhibitors, such as donepezil (Aricept), can reduce behavioral symptoms in some patients with Parkinson’s dementia.

At present, no medications are approved specifically to treat or prevent FTD and most other types of progressive dementia. However, sedatives, antidepressants and other medications may be useful in treating specific symptoms and behavioral problems associated with these diseases.

Scientists continue to search for specific treatments to help people with Lewy body dementia. Current treatment is symptomatic, often involving the use of medication to control the Parkinson’s and psychiatric symptoms. Although anti-Parkinsonian medication may help reduce tremor and loss of muscle movement, it may worsen symptoms such as hallucinations and delusions. Also, drugs prescribed for psychiatric symptoms may make the movement problems worse. Several studies have suggested that cholinesterase inhibitors may be able to improve cognitive function and behavioral symptoms in patients with Lewy body disease.

There is no known treatment that can cure or control CJD. Current treatment is aimed at alleviating symptoms and making the patient as comfortable as possible. Opiate drugs can help relieve pain and the drugs clonazepam and sodium valproate may help relieve myoclonus. During later stages of the disease, treatment focuses on supportive care, such as administering intravenous fluids and changing the person’s position frequently to prevent bedsores.

Can dementia be prevented?

Research has revealed a number of factors that may be able to prevent or delay the onset of dementia in some people. For example, studies have shown that people who maintain tight control over their glucose levels tend to score better on tests of cognitive function than those with poorly controlled diabetes. Several studies also have suggested that people who engage in intellectually stimulating activities, such as social interactions, chess, crossword puzzles and playing a musical instrument, significantly lower their risk of developing AD and other forms of dementia.

Scientists believe mental activities may stimulate the brain in a way that increases the person’s “cognitive reserve” – the ability to cope with or compensate for the pathologic changes associated with dementia.

Researchers are studying other steps people can take that may help prevent AD in some cases. So far, none of these factors has been definitively proven to make a difference in the risk of developing the disease. Moreover, most of the studies addressed only AD, and the results may or may not apply to other forms of dementia. Nevertheless, scientists are encouraged by the results of these early studies and may believe it will eventually become possible to prevent forms of dementia.

Possible preventive actions include:

- **Lowering homocysteine** – In one study, elevated blood levels of the amino acid homocysteine were associated with a 2.9 times greater risk of AD and a 4.9 times greater risk of vascular dementia. A preliminary study has shown that high doses of three B vitamins that help lower homocysteine levels – folic acid, B12 and B6 – appear to slow the progression of AD. Researchers are conducting a multicenter clinical trial to test this effect in a larger group of patients.

- **Lowering cholesterol levels** – Research has suggested that people with high cholesterol levels have an increased risk of developing AD. Cholesterol is involved in formation of amyloid plaques in the brain. Mutations in a gene called CYP46 and the apoe E4 gene variant, both of which have been linked to an increased risk of AD, are also involved in cholesterol metabolism. Several studies have also found that the use of drugs called statins, which lower cholesterol levels, is associated with a lower likelihood of cognitive impairment.

- **Lowering blood pressure** – Several studies have shown that antihypertensive medicine reduces the odds of cognitive impairment in elderly people with high blood pressure. One large European study found a 55 percent lower risk of dementia in people over 60 who received drug treatment for hypertension. These people had a reduced risk of both AD and vascular dementia.

- **Exercise** – Regular exercise stimulates production of chemicals called growth factors that help neurons survive and adapt to new situations. These gains may help to delay the onset of dementia symptoms. Exercise also may reduce the risk of brain damage from atherosclerosis.

  - **Education** – Researchers have found evidence that formal education may help protect people against the effects of AD. In one study, researchers found that people with more years of formal education had relatively less mental decline than people with less schooling, regardless of the number of amyloid plaques and neurofibrillary tangles each person had in his or her brain. The researchers think education may cause the brain to develop robust nerve cell networks that can help compensate for the cell damage caused by AD.

  - **Controlling inflammation** – Many studies have suggested that inflammation may contribute to AD. Moreover, autopsies of people who die with AD have shown widespread inflammation in the brain that appeared to be caused by the accumulation of beta amyloid. Another study found that men with high levels of C-reactive protein, a general marker of inflammation, had a significantly increased risk of AD and other kinds of dementia.

  - **Non-steroidal anti-inflammatory drugs (NSAIDs)** – Research indicated that long-term use of NSAIDs, ibuprofen, naproxen, and similar drugs, may prevent or delay the onset of AD. Researchers are not sure how these drugs may protect against the disease, but some or all of the effect may be due to reduced inflammation. A 2003 study showed that these drugs also bind to amyloid plaques and may help to dissolve them and prevent formation of new plaques.

The risk of vascular dementia is strongly correlated with risk factors for stroke, including high blood pressure, diabetes, elevated cholesterol levels and smoking. This type of dementia may be prevented in many cases by changing lifestyle factors, such as excessive weight and high blood pressure, which are associated with an increased risk of cerebrovascular disease. One European study found that treating isolated systolic hypertension (high blood pressure in which only the systolic or top number is high) in people age 60 and older reduced the risk of dementia by 50 percent. These studies strongly suggest that effective use of current treatments may prevent future cases of vascular dementia.

A study published in 2005 found that people with mild cognitive impairment who took 10mg/day of the drug donepezil had a significantly reduced risk of developing AD during the first two years of treatment, compared to people who received vitamin E or placebo. By the end of the third year, however, the rate of AD was just as high in the people treated with donepezil as it was in the other two groups.
What kind of care do people with dementia need?

People with moderate and advanced dementia typically need round the clock care and supervision to prevent them from harming themselves or others. They also may need assistance with daily activities such as eating, bathing and dressing. Meeting these needs takes patience, understanding and careful thought by the person’s caregivers.

A typical home environment can present many dangers and obstacles to a person with dementia, but simple changes can overcome many of these problems. For example, sharp knives, dangerous chemicals, tools and other hazards should be removed or locked away. Other safety measures include installing bed and bathroom safety rails, removing locks from bedroom and bathroom doors and lowering the hot water temperature to 120F (48.9C) or less to reduce the risk of accidental scalding. People with dementia also should wear some form of identification at all times in case they wander away or become lost. Caregivers can help prevent unsupervised wandering by adding locks or alarms to outside doors.

People with dementia often develop behavior problems because of frustration with specific situations. Understanding and modifying or preventing the situations that trigger these behaviors may help to make life more pleasant for the person with dementia as well as his or her caregivers. For instance, the person may be confused or frustrated by the level of activity or noise in the surrounding environment. Reducing unnecessary activity and noise (such as limiting the number of visitors and turning off the television when it’s not in use) may make it easier for the person to understand requests and perform simple tasks. Confusion also may be reduced by simplifying home decorations, removing clutter, keeping familiar objects nearby and following a predictable routine throughout the day. Calendars and clocks also may help patients orient themselves.

What research is being done?

Current research focuses on many different aspects of neurocognitive disorders. This research promises to improve the lives of people affected by the dementia and may eventually lead to ways of preventing or curing these disorders.

Causes and prevention

Research on the causes of AD and other dementias includes studies of genetic factors, neurotransmitters, inflammation; factors that influence programmed cell death in the brain and the roles of tau, beta amyloid and the associated neurofibrillary tangles and plaques in AD. Some other researchers are trying to determine the possible roles of cholesterol metabolism, oxidative stress (chemical reactions that can damage proteins, DNA and lipids inside cells) and microglia in the development of AD. Scientists also are investigating the role of the enzyme telomerase.

Since many dementias and other neurodegenerative diseases have been linked to abnormal clumps of proteins in cells, researchers are trying to learn how these clumps develop, how they affect cells and how the clumping can be prevented.

Some studies are examining whether changes in white matter, nerve fibers lines with myelin, may play a role in the onset of AD. Myelin may erode in AD patients before other changes occur. This may be due to a problem with oligodendrocytes, the cells that produce myelin.

Researchers are searching for additional genes that may contribute to AD, and they have identified a number of gene regions that may be involved. Some researchers suggest that people will eventually be screened for a number of genes that contribute to AD and that they will be able to receive treatments that specifically address their individual genetic risks. However, such individualized screening and treatment is still years away.

Insulin resistance is common in people with AD, but it is not clear whether the insulin resistance contributes to the development of the disease or if it is merely a side effect.

Several studies have found a reduced risk of dementia in people who take cholesterol-lowering drugs called statins. However, it is not yet clear if the apparent effect is due to the drugs or to other factors.

Early studies of estrogen suggested that it might help prevent AD in older women. However, a clinical study of several thousand postmenopausal women aged 65 or older found that combination therapy with estrogen and progestin substantially increased the risk of AD. Estrogen alone also appeared to slightly increase the risk of dementia in this study.

A 2003 study found that people with HIV-associated dementia have different levels of activity for more than 30 different proteins, compared to people who have HIV but no signs of dementia. The study suggests a possible way to screen HIV patients for the first signs of cognitive impairment, and it may lead to ways of intervening to prevent this form of dementia.

Diagnosis

Improving early diagnosis of AD and other types of dementia is important not only for patients and families but also for researchers who seek to better understand the causes of dementing diseases and find ways to reverse or halt them at early stages. Improved diagnosis can also reduce the risk that people will receive inappropriate treatments.
Some researchers are investigating whether three-dimensional computer models of PET and MRI images can identify brain changes typical of early AD before any symptoms appear. This research may lead to ways of preventing the symptoms of the disease.

One study found that levels of beta amyloid and tau in spinal fluid can be used to diagnose AD with a sensitivity of 92 percent. If other studies confirm the validity of this test, it may also help doctors to identify people who are beginning to develop the disorder before they start to show symptoms. This would allow treatment at very early stages of the disorder and may help in testing new treatments to prevent or delay symptoms of the disease. Other researchers have identified factors in the skin and blood of AD patients that are different from those in healthy people. They are trying to determine whether these factors can be used to diagnose the disease.

Treatment

Researchers are continually working to develop new drugs for AD and other types of dementia. Many researchers believe a vaccine that reduces the number of amyloid plaques in the brain might ultimately prove to be the most effective treatment for AD. In 2001, researchers began one clinical trial of a vaccine called AN-1792. The study was halted after a number of people developed inflammation of the brain and spinal cord. Despite these problems, one patient appeared to have reduced numbers of amyloid plaques in the brain. Other patients showed little or no cognitive decline during the course of the study, suggesting that the vaccine may slow or halt the disease. Researchers are now trying to find safer and more effective vaccines for AD.

Researchers are also investigating possible methods of gene therapy for AD. In one case, researchers used cells genetically engineered to produce nerve growth factor and transplanted them into monkey’s forebrains. The transplanted cells boosted the amount of nerve growth factors in the brain and seemed to prevent degeneration of acetylcholine-producing neurons in the animals. This suggests that gene therapy might help to reduce or delay symptoms of the disease. Researchers are now testing a similar therapy in a small number of patients. Other researchers have experimented with gene therapy that adds a gene called neprilysin in a mouse model that produces human beta amyloid. They found that increasing the level of neprilysin greatly reduced the amount of beta amyloid in the mice and halted the amyloid-related brain degeneration. They are now trying to determine whether neprilysin gene therapy can improve cognition in mice.

A clinical trial called the Vitamins to Slow Alzheimer’s Disease (VITAL) study is testing whether high doses of three common B vitamins, folate acid, B12, and B6, can reduce homocysteine levels and slow the rate of cognitive decline in AD.

Since many studies have found evidence of brain inflammation in AD, some researchers have proposed that drugs that control inflammation, such as NSAIDs, might prevent the disease or slow its progression. Studies in mice have suggested that these drugs can limit production of amyloid plaques in the brain. Early studies of these drugs in humans have shown promising results. However, a large NIH funded clinical trial of two NSAIDs (naproxen and celecoxib) to prevent AD was stopped in late 2004 because of an increase in stroke and heart attack in people taking naproxen, and an unrelated study that linked celecoxib to an increased risk of heart attack.

Some studies have suggested that two drugs, pentoxifylline and propentofylline, may be useful in treating vascular dementia. Pentoxifylline improves blood flow, while propentofylline appears to interfere with some of the processes that cause cell death in the brain (Medicine Net, 2014).

Psychosocial factors of disorders on the elderly

Factors such as where an elderly person lives and who cares for that person do have an impact on the overall well-being of the elder person. Studies have demonstrated that those elderly persons who live alone do tend to have more symptoms of depression (Dean, Kolody, Wood and Matt, 1992). Other studies have similar findings. One recent study of elderly Europeans indicated that marital partners tend to be the most important factor in preventing depression in the elderly, but frequent contact with children also predicts less depressive symptoms. Those elderly persons who lived alone experienced the highest levels of depression (Buber and Engelhardt, 2008).

Furthermore, many elderly persons are also caregivers to other elderly persons, usually their spouses, thus causing another psychosocial factor that greatly affects the mental health of many of the elderly. Not only is an elderly person affected by who they live with, he or she is also affected by the setting in which they live. The setting in which an elderly person resides can affect his or her access to care and the quality of the care received. In addition, the cultural influences in the life of an elderly person also exert a profound impact upon their view of mental illness, their coping mechanisms, and their resistance to treatment.

Nursing homes and assisted living

For many reasons, both physical and mental, it is not appropriate for some seniors to live on their own. However, that an elderly person lives in a residential facility does not ensure that mental health needs are being met. It has been estimated that two-thirds of nursing home residents have some form of emotional or behavioral disturbances, and one-half are taking psychotropic medications. However, the medical staff often failed to look at the clients holistically and focused on the behavioral issues only, ignoring the underlying medical causes, such as untreated infections and chronic pain as conditions that added to the mental health issues (Gruber-Baldini, et al., 2004).

Chapin, Reed and Dobbs (2004) also found that depression was under-diagnosed in those elderly persons living in assisted living facilities, and residents had little understanding of mental health resources or how to access those services. Other studies have similar findings, in that many of the assisted living home residents had symptoms of mental illness (Gottsmann, Peskin, Kennedy and Mossey, 1991).

A survey of assisted living facility administrators indicated that while many of them were aware of mental health issues, many of their staff members who dealt directly with residents had no mental health training, and only about half of the facilities had a mental health professional to provide a mental health assessment at intake. When the facility personnel were aware of unmet mental health needs, they did make referrals, but most often the referrals were made to general practitioners rather than mental health specialists. The author noted that assisted care facilities overall needed more training for staff to assess for mental health issues and to learn about resources and referrals in the community (Cummings, 2003).

Despite the higher level of medical care provided to residents, nursing homes still overall lack effective strategies and systems of care for mentally ill residents. Carlson and Snowden (2007) noted that it has been estimated that 12 percent to 21 percent of residents in nursing homes suffer from depression. In addition, anywhere from 35 percent to 60 percent of nursing home residents take antidepressants. But
about 20 percent of those getting treatment still showed significant signs of depression, which is indicative that the treatment received was inadequate and not well-monitored overall.

Some nursing homes have incorporated the use of care managers who educate the family and patient about medication and other forms of treatment, create treatment plans that incorporate the appropriate forms of treatment and monitor the patient’s progress. According to Carolson and Snowden, effective programs have several common elements:

- Screening tools, such as the DSM-IV structured clinical interview, which remains in place despite revisions of DSM-V.
- Antidepressants, closely monitored by the nurse who serves as care manager and who has the authority to adjust medications as needed.
- Psychotherapy, which is most often problem-solving therapy or interpersonal therapy.
- Supervision of case managers by a psychiatrist, who may be on staff or contracted.

After extensive review of the published literature on the treatment of nursing home patients for dementia and depression, the two most common diagnoses seen in this population, there were not a sufficient number of studies to determine what the best practices were for care of the elderly with these diagnoses. The authors determined that neither medication nor therapy totally eliminated symptoms, but interventions can lessen symptoms.

Furthermore, there were not enough studies to determine whether therapy or medication was more effective. A good deal of evidence existed in the studies reviewed to support the use of antipsychotic medication, but there was less support for the use of antidepressants or benzodiazepines. The authors further recommended that there was a need for more accurate screening tools for mental illness and a need for more studies on the efficacy of medication to treat dementia and depression.

An expert interdisciplinary panel led by the American Geriatrics Society (AGS) and the American Association for Geriatric Psychiatry (AAGP) and including representatives from numerous stakeholder organizations has issued a new consensus statement calling for significant revisions to the standards of care for nursing home residents with depression and behavioral symptoms associated with dementia. The AGS and AAGP have also issued health policy recommendations that address implementation of the expert panel’s clinical recommendations.

Approximately 1.5 million older adults currently reside in nursing homes across the United States, and about one-fifth of those residents have symptoms of depression. Up to 40 percent of residents with dementia have both behavioral and psychiatric symptoms that could be alleviated by proper care and treatment. According to the panel, “the current protocols for the screening and management of these problems are inadequate.” Joseph G. Ouslander, MD, former AGS president and co-chair of the expert panel, states, “The current system does not provide enough specific recommendations for nursing home staff to develop optimal, individualized care plans based on their assessment of depression and behavioral symptoms.”

Among its recommendations, the panel calls for routine and regular screening for depression in every nursing home resident. They also call for improved screening instruments and first-line treatment of major depression with antidepressant medications in combination with nonpharmacologic interventions. The consensus statement also outlines numerous approaches for nursing home administrators and staff to improve the environment for residents, thus enhancing their independence, sense of well-being and quality of life.

The panel states that better assessment tools for residents with dementia-related behavioral symptoms are required, as well as careful and regular evaluation to determine whether a resident’s symptoms may be the result of adverse drug interactions or other medical conditions. The panel also states that barriers to using effective drug therapies such as restrictive formularies and attitudes about using psychotropic drugs as “chemical restraints” should be reassessed in order to provide the best care for residents. “Most importantly, we need to take advantage of the large body of research on effective interventions by ensuring that evidence-based mental health treatments are provided in nursing homes,” says Stephen J. Bartels, MD, former AAGP president and expert panel co-chair. “Improving the quality of care for residents with mental health problems will require enhanced training and staffing in nursing home needs, complimented by greater availability of mental health consultation services.”

The AGS and AAGP policy recommendations include:

- Making mental health services more available to nursing homes, particularly in rural areas and those that are publicly financed.
- Including coverage for mental health services and health medications in public and private insurance plans that cover nursing home residents.
- Rewarding facilities that provide appropriate pharmacologic and nonpharmacologic treatment for residents with mental illness.
- Encouraging staff training to identify residents with mental illness.
- Promoting research to identify the best practices in meeting the mental health care needs of nursing home residents.

The consensus statement and policy recommendations are intended to assist regulators at the Centers for Medicare and Medicaid Services (CMS) and other agencies as they make revisions to the current guidelines and quality measures for nursing homes.

In-home care

While many elderly persons enter long-term care settings, many more are cared for at home by family members. A recent interview with Dr. Stephen Golant, an expert on elderly housing at the University of Florida, notes that the elderly are moving more towards home-based care, in part due to concerns about the cost of assisted living facilities and nursing homes. In addition, seniors tend to prefer to live in their own homes (AARP, 2014). He stated that this does create burdens for care givers that are becoming more difficult to reconcile given that many women now work outside the home. Many caregivers of older people are themselves older adults. Of those caring for someone aged 65 or older, the average age of caregivers is 63, with a third of these caregivers in fair to poor health themselves (Administration on Aging, 2004). One survey found that 58 percent of caregivers were over the age of 65, and that more than 10 percent were over the age of 80. There are two primary aspects to the roles of caregivers: relationship between caregivers and the identified patient, and caregiver’s mental well-being.

The Family Caregiver Alliance (FCA), a national nonprofit organization that provides information and referral for caregivers as well as medical and social service personnel, notes that the average caregiver is a married woman between the ages of 45-55 who works full time and also devotes an average of 20 hours per week to care giving. The Family Caregiver Alliance also notes the following statistics concerning caregivers in the United States on its website: www.caregiver.org:

- By the year 2007, the number of care-giving households in the U.S. for persons aged 50-plus could reach 39 million.
- Over three-quarters (78 percent) of adults living in the community in need of long-term care depend on family and friends (i.e., informal caregivers) as their only source of help; 14 percent receive a combination of informal and formal care (i.e., paid help); only 8 percent used formal care or paid help only.
- Even among the most severely disabled older persons living in the community, about two-thirds rely solely on family members and other informal help, often resulting in great strain for the family caregivers. The use of informal care as the only type of assistance by older Americans aged 65 and over increased from 57 percent in 1994 to 66 percent in 1999. The growth in reliance upon informal...
care between 1994 and 1999 is accompanied by a decline in the use of a combination of informal and formal care from 36 percent in 1994 to 26 percent in 1999.

- Thirty percent of persons caring for elderly long-term care users were themselves aged 65 or over; another 15 percent were between the ages of 45-54.

### Elderly caregivers

Those elderly persons who care for others are themselves at high risk for developing a mental illness. The Family Caregiver Alliance notes that:

- **Women experience depression at a higher rate than men.**
  
  Women, primarily wives and daughters, provide the majority of care giving. In the United States, approximately 12 million women experience clinical depression each year, at approximately twice the rate of men. A National Mental Health Association survey on the public’s attitude and beliefs about clinical depression found that more than one-half of women surveyed still believe it is “normal” for a woman to be depressed during menopause.

- **Men who are caregivers deal with depression differently.**
  
  Men are less likely to admit to depression and doctors are less likely to diagnose depression in men. Men will more often “self-treat” their depressive symptoms of anger, irritability or powerlessness with alcohol or overwork. Although male caregivers tend to be more willing than female caregivers to hire outside help for assistance with home care duties, they tend to have fewer friends to confide in or positive activities outside the home. The assumption that depressive symptoms are a sign of weakness can make it especially difficult for men to seek help.

- **Lack of sleep contributes to depression.** While sleep needs vary, most people need eight hours a day. Loss of sleep as a result of caring for a loved one can lead to serious depression. The important thing to remember is that even though you may not be able to get your loved one to rest throughout the night, you can arrange to get much needed sleep. Hiring a respite worker to be with your loved one while you take a nap or finding a care center or scheduling a stay-over with another family member for a few nights are ways to keep your care-giving commitment while getting the sleep you need.

- **Depression can persist after placement in a care facility.**
  
  Making the decision to move a loved one to a care center is very stressful. While many caregivers are finally able to catch up on much needed rest, loneliness, guilt and monitoring the care a loved one receives in this new location can add new stress. Many caregivers feel depressed at the time of placement, and some continue to feel depressed for a long time after.

One well-known study by Schulz, et al., (1995), looked at depression in caregivers of Alzheimer’s patients over a four-year period and concluded that female caregivers overall experience more depressive symptoms, but if men stay in a long-term care-giving role, they begin to become increasingly depressed as time goes on. For men and women, the more difficult a person was to care for in terms of behavior, the higher the levels of associated stress in the caregivers. Furthermore, the authors also noted that perceived levels of high social support tended to buffer caregivers against depression. Overall, in another study, depression was found to be the most commonly reported mental health problem for caregivers (Bergman-Evans, 1994). Other studies have shown that the major risk factor for the development of depression in caregivers is loss of social contacts and support that a caregiver often experiences when devoting so much time to the person in care.

In one recent study it was determined that elderly caregivers typically report an extra 30 days per year of depression than do elderly persons who do not have care-giving responsibilities (Thompson, Fan, Unutzer, and Katon, 2007).

- For the family caregiver forced to give up work to care for a family member or friend, the cost in lost wages and benefits is estimated to be $109 per day.

Caregivers of those persons with dementia are especially at a high risk of developing depression. The Family Caregiver Alliance warns caregivers of the potential consequences of providing long-term care for someone with dementia on the website www.caregiver.org:

> “Researchers have found that a person who provides care for someone with dementia is twice as likely to suffer from depression as a person providing care for someone without dementia. The more severe the case of dementia, such as that caused by Alzheimer’s disease, the more likely the caregiver is to experience depression. It is critical for caregivers, especially in these situations, to receive consistent and dependable support.”

Caring for a person with dementia can be all-consuming. It is different from other types of care giving. Not only do caregivers spend significantly more hours per week providing care, they report more employment problems, personal stress, mental and physical health problems, less time to do the things they enjoy, less time to spend with other family members and more family conflict than non-dementia caregivers. As stressful as the deterioration of a loved one’s mental and physical abilities may be for the caregiver, dealing with dementia-related behavior is an even bigger contributor to developing symptoms of depression. Dementia-related symptoms such as wandering, agitation, hoarding and embarrassing conduct make every day challenging and make it harder for a caregiver to get rest or assistance in providing care.

Unfortunately, many barriers exist that keep caregivers from getting the help they need for depression. According to Grey (2003), caregivers fail to get treatment due to several factors:

- Caregivers are too focused on the needs of those they care for and do not take time to take care of themselves.
- The financial resources of the family are often being used by the person that the caregiver takes care of.
- And there is not enough left for the caregiver to pay for therapy and medication.
- Few programs exist to provide outreach to caregivers and provide them with support and linkage to resources.
- Primary care physicians tend to focus only on the patient and do not address the overall needs of the family system.
- Primary care physicians often overlook depression and do not diagnose it in caregivers.

In some areas, programs do exist to provide respite care for a few hours or even a few days, and other inventive programs are found to give support and counseling to caregivers. However, most states do not have these types of programs. The American Medical Association, as well several states including California, Wisconsin, Minnesota, Pennsylvania and Washington, have developed tools for the assessment of caregivers to identify those who are suffering from depression, anxiety, and other issues and to link these caregivers to resources.
CULTURAL INFLUENCES

African American elderly

Ethnic minority elderly persons have been understudied overall in mental health and psychiatry. However, their numbers are growing even more rapidly than the elder population in general. For example, the elderly African American population is expected to grow by at least 8 percent by the year 2050. However, African American elderly persons are very much underrepresented in studies of the elderly. Moreover, there are often barriers to mental health treatment. In addition, elderly African Americans tend to be distrustful of the mental health establishment and often feel culturally disconnected to the providers who are very often Caucasian. Furthermore, a lack of cultural understanding has historically led to misunderstanding between older African Americans and the mental health profession.

As noted by Ahmed and Kramer (2006), there is a high level of stigma attached to seeking mental health services for elderly African Americans. Frequently, these elderly persons prefer to seek help from their pastors or other religious leaders. In addition, elderly African Americans tend to be distrustful of the mental health establishment and often feel culturally disconnected to the providers who are very often Caucasian. Furthermore, a lack of cultural understanding has historically led to misunderstanding between older African Americans and the mental health profession.

For example, ethnic majority mental health professionals often overlook many of the life events that older African Americans experienced as severe trauma as a result of segregation and racial violence. Consequently, the mental health establishment often misinterprets the reactions of elderly African Americans towards society as paranoid when these behaviors are, instead, understandable when viewed with a culturally sensitive lens.

In addition, some older African Americans may also express emotional distress in ways that do not have a label in the ethnic majority culture, which are described as “culture bound syndromes.” For example, “falling out” is an emotional state that consists of dizziness and collapse and is widely recognized in the African American culture, but has no real counterpart in Caucasian culture. Some older African Americans may also believe in “rootwork,” which attributes psychological problems to someone placing a hex on an individual.


Hispanic elderly persons

Many Hispanics are reluctant to seek mental health treatment due to language and cultural barriers. This is particularly true among older Hispanics, who often know less English than younger Hispanics.

Furthermore, due to cultural differences, treating Hispanic persons can be difficult if a clinician is unaware of some cultural influences that impact the therapeutic relationship. Ahmed and Kramer cite the work of Anez, et al (2005) and Gloria and Peregyo (1996) to describe common cultural situations:

- **Falismo** is a term that describes a cultural value among Hispanics that encourages the importance of the family over the individual and for family to be highly valued in general. Extended family tends to be very important and can serve as strength, but also a hindrance to treatment if the family disapproves of treatment for an individual.
- **Simpatia** is a cultural value that emphasizes harmony over conflict. Simpatia, however, can result in Hispanics agreeing with a mental health professional about a course of treatment to avoid creating conflict. However, the person may not follow through with recommendations, but agree to avoid conflict.
- **Personalismo** is the high regard for getting to know another person in a social setting. Hispanic persons may expect and desire to relate on a social level to the clinician and may feel offended if the clinician ignores this need and gets right to business with the client.
- **Respero** is the respect for elders and placing great value on the advice and opinions of the elders of a family. In addition, respero includes the cultural expectation that children will take care of their parents into the elderly years.
- **Fatalismo** is the belief that greater powers control life events and one’s destiny. This belief can lead to a person having a strong external locus of control.
- **Verguenza** is a cultural tradition that revolves around shame. Seeking treatment may bring shame upon a family, and Hispanics will seek to avoid bringing shame if at all possible. This can be a barrier to seeking treatment.
- **Machismo and marianismo** are terms that describe gender roles in Hispanic persons. Machismo refers to the traditional role of a man as a protector and provider for his family. Marianismo is the cultural expectation that a woman will be submissive to men and be a nurturing wife and mother.

In addition, many Hispanics practice various religious belief systems such as Santeria, Espiritismo, and Curanderismo. These systems have some common themes regarding the placing of spells and various healing practices to heal the afflicted. Many elderly Hispanic persons have strong beliefs regarding these practices and may wish to use these instead of traditional mental health treatment.

Asian Americans elderly

Asian Americans are the fastest growing minority group in the United States. Asian Americans are comprised of many ethnic groups from numerous countries, with the majority of Asian Americans being Chinese, who make up about 25 percent of all Asians in the United States. As a result of certain cultural and religious beliefs, many Asian Americans believe it is better to deal with mental illness within the family and avoid involving “outsiders.” In addition, the language barrier is often a reason why Asian Americans avoid seeking mental health services. It is also difficult, due to their cultural expectations, to value the needs of the individual over the needs of the family. For many Asian Americans, it can be difficult to understand Western-based therapy, which emphasize individual happiness and choices, often at the expense of the wants and desires of the family unit.

Asian Americans are typically expected to care for their elderly parents and do not consider this to be burdensome. Elderly persons expect that their children will care for them and are not as concerned as Caucasians with the notion of being a burden for their children. This high level of family support can be seen as a strength for older Asian Americans.

However, among many of the Asian cultures, there is a high respect shown for authority figures, which can include mental health professionals. This respect will sometimes result in the client agreeing to follow the recommendations of the therapist, but the client will not actually follow through with these recommendations. (Ahmed and Kramer, 2006).
Pharmacological treatment for Asian Americans
Some studies have indicated that Asian Americans do metabolize medications such as benzodiazepines and antipsychotic medications differently than Caucasians do, which can have adverse effects for treatment. Furthermore, many Asians take herbal supplements that can interact in adverse ways with medications (Ahmed and Kramer, 2006).

Cultural issues
In many Asian cultures there is a particular stigma associated with mental illness. There is a primary concern that if mental illness becomes known, other people will not want to marry into the family. Therefore, the family often conceals psychosis until it has reached the critical point, which can make it more difficult to treat.

There are also several culture-bound syndromes described by Ahmed and Kramer (2006) that occur in Asian cultures but do not have a diagnosis in our culture:
- **Amok**, which is most frequently noted in Southeast Asia, that describes a rampage often resulting in death.
- **Phii Pob**: In Thailand, this is a possession by a spirit and most frequently occurs in females.
- **Hsieh Ping**, which occurs in Thailand, is the manifestation of symptoms that include agitation, speaking in tongues and hallucinations.
- **Hwa-byung**, which is found primarily in Korea and is the presentation of symptoms such as feeling pressure in the chest, fear, headaches, fatigue and suicidal thoughts; it is believed to be the result of unexpressed anger.
- **Shenjing sheuiaro**, found in China, which results in insomnia, loss of appetite, problems with concentration, memory loss, headaches and sexual dysfunction.
- **Latah** is a disorder mostly found in Malaysian females, which results in disassociated behaviors and extreme startle responses and is believed to be caused by possession.
- **Shin-byung** is found in Koreans and results in anorexia, weakness, and insomnia and is believed to result from the possession by one’s ancestors.

Native American elderly

Native Americans tend to have higher rates of substance abuse, suicide and anxiety than Caucasians or any other minority group. Native Americans have a long history of oppression and abuse from Caucasian society and have suffered many atrocities over the centuries. The resulting poverty, lack of education, grief and ongoing family conflicts have had many negative effects on Native Americans. The cultural mistrust of “outsiders” has its basis in reality and thus, makes it difficult for many Native Americans to accept services from external resources. (It is interesting to note that among some tribes, dementia is viewed as a sign of the ability to communicate with the afterlife and is actually held in high esteem by other tribal members, rather than a negative condition that requires intervention and treatment.)

Elder mental illness prevention

The key issues in preventing major mental illness in the elderly are:
- Increasing the access of seniors to services in the community.
- Eliminating the stigma that many older adults feel towards mental health therapy.

Some research relates to the importance of removing the stigma associated with receiving treatment for mental illness. Prevention efforts to change the attitudes of elderly persons towards the access of mental health services have been studied, and the research indicated that brief psycho-educational outreach could increase the participation of senior adults in outpatient mental health counseling (Alvidrez, Arean, and Stewart, 2005). Other studies have had similar findings, in that providing education to this population group can help remove that stigma and move them into treatment earlier, thus preventing some later problems. “Spiritual and community support have also been shown to help keep elderly persons more active and provide an overall greater sense of well-being. Social supports help to insulate a person against life events such as bereavement and physical illnesses,” (Boyd, 2005).

Suicide prevention

Suicide prevention has received most of the attention in the area of prevention of mental illness and the elderly. There are several risk factors for suicide in the elderly that can be assessed and managed. Certain types of medications can be used in killing oneself rather easily. Therefore, in depressed persons, it is better not to prescribe amitriptyline and dosulepin (Henry et al., 1995).

The increased education and training of general medical practitioners is also critical in the prevention of suicide. A large number of elderly persons who committed suicide were found to have visited their primary care doctor in the month before they killed themselves. Training that is focused on helping doctors recognize the signs of depression would help to prevent some suicides (Vassilas and Morgan 1994; Harwood et al, 2000).

In screening the elderly for suicidal intentions, there are some indications that both the Beck Hopelessness Scale and the Geriatric Depression Scale offer insight into the intent of an elderly person. Suicidal ideations in the elderly are typically preceded by problems with physical health as well as higher scores on Beck’s Hopelessness Scale (Hill, et al., 1988). Furthermore, Dennis, et al., (2005) noted that among those elderly persons who suffered from depression, the Geriatric Depression Scale showed that those who had attempted suicide were more likely to have answered yes to the question: “ Do you feel your situation is hopeless?” and to have answered no to, “is it wonderful to be alive now?” Therefore, the utilization of these screening instruments can be an effective tool in identifying these elderly persons who are at higher risk of suicide and consequently alert providers to the need for increased monitoring or more intensive interventions.

Prevention of depression

There is also evidence that targeted prevention programs can help prevent the development of depression. Wilson, Mottram and Siresmith (2007) found in their study of elderly persons between the ages of 80 to 90 that not living close to friends and family, dissatisfaction with housing and strong financial concerns were all associated with higher levels of depression. This research indicates that screening procedures that assess these types of concerns in the elderly can then lead to specific interventions to alleviate these risk factors.

It is critical for those on the “front lines” who regularly interact with elderly persons receive training to recognize depression in their clients. A recent study examined a program delivered by case managers to high-risk elderly persons. Case managers were trained to provide screening and assessment, education, referral and linkage. The authors studied levels of depression, utilization of mental health services, overall health and levels of social and physical activity. Overall, there was a modest decrease in depressive symptoms, but the participants
were much more knowledgeable about services available to them and understood that engaging in increased levels of activity led to a better sense of well-being, and had overall less physical pain. (Arean, Alexopolous, and Chu, 2007).

Because many of the elderly in the United States live in nursing homes, it is essential that nursing home personnel recognize the signs of depression. A recent study of nursing home residents demonstrated that efforts to educate caregivers to recognize and respond to depressive symptoms in the residents appeared to have a positive effect. The authors studied two groups of caregivers, providing education to recognize depression symptoms to one of the groups. They assessed depressive symptoms over a period of time for residents assigned to all of the caregivers. The residents who interacted with the trained caregivers had overall lower rates of depression than those residents whose caregivers were not trained to recognize symptoms of depression (Cuijpers and Lammeren, 2000).

Substance abuse prevention

Substance abuse prevention takes on three main forms:

- The first is primary prevention, which can range from regulating certain substances in an effort to curb their usage to consultation from a pharmacist or physician when an older adult begins taking prescription drugs with a high rate of abuse, such as narcotic painkillers. Primary prevention efforts can also involve public education campaigns to educate the public about the issues of substance abuse in an attempt to prevent people from ever beginning the use of substances.

- Secondary prevention acknowledges that a person may have already begun to use a substance, and these prevention strategies are designed to intervene against further use of an illegal substance such as marijuana, or to warn people against developing issues with misuse of a substance, or to halt a progression towards addiction.

- Tertiary prevention involves efforts to halt the progression of substance abuse that is rather severe, and to stop it from becoming fatal (Carlson, 1994).

Substance abuse is typically underdiagnosed in the elderly population. Substance abuse in the elderly often involves prescription medications or alcohol, rather than street drugs such as marijuana, heroin or cocaine. In treating the elderly, it is critical to realize that prevention efforts against substance abuse often have further-reaching impacts on the elderly person’s health. Substance abuse of alcohol or prescription drugs can have a profound impact on the other medications that an elderly person may truly need for other health conditions. It can also be more difficult to utilize prevention methods regarding prescription medications when many doctors do not consider that the elderly are often more sensitive to medications overall.

Many medications are simply inappropriate for elderly persons due to the tendency of some medications to lead to mental confusion and problems with physical coordination that result in falls and injuries (Carlson, 1994). It would seem incongruous that many physicians who treat the elderly are not aware of these issues, but studies have indicated about 25 percent of elderly persons were prescribed wrong medications (Wilcox, 1994).

Complicated issues accompany elderly persons and medications, in addition to the prevention of the misuse of prescription drugs. Some studies have shown that elderly persons often withhold information from their physicians because they think many of their symptoms are a normal part of aging and not important enough to mention. Other seniors have limited incomes and do not consistently stay on their medications because they cannot afford them. In addition, many doctors do not take enough time to explain side effects and the importance of medication compliance to their patients. Better training with physicians is needed to help prevent prescription medication complications within the elder population (Carlson, 1994).

Carlson goes on to note that prevention of substance abuse in the elderly should focus on general education towards preparing the elderly for life changes, financial preparation and bereavement. In addition, there needs to be more education for the elderly about the dangers of alcohol and prescription drug abuse. However, these prevention efforts need to target not just heavy drinkers, but also those who are infrequent users in order to help them understand the dangers of mixing alcohol and prescription drugs. Furthermore, moderate drinkers need to understand how the physiological differences that accompany advancing age also change the body’s response to alcohol. The quantity of alcohol absorbed within the body at age 45 may be too great for a 75-year-old person. In addition, based on the extensive study of multistate prevention efforts, Carlson noted common factors that should be present for the successful implementation of substance abuse prevention efforts:

1. **Collaboration** – The plans for an elderly substance abuse and misuse prevention initiative should be developed with participation from other state-level agencies involved in services to older adults, include consultation with relevant local and regional service providers and also involve participation by representatives from the aging community.

   This recommendation recognizes the various services that might be appropriate entry or target points for prevention efforts and the importance they have had in prevention efforts elsewhere. Early involvement is critical for full utilization of these options in any program implementation. It also acknowledges the diverse interests such groups represent and the need for any initiative to reflect this diversity and draw on its strengths.

2. **Information** – Strategies for any prevention initiative should include compilation and packaging of information about the targeted problem or problems, and where and how to access additional resources and services. Such a package should make maximal use of existing materials and resources, with the primary attention directed to distribution of information rather than development of new materials.

   This recommendation addresses the existing availability of diverse informational and training materials and stresses the value of putting them together in such a way as to improve their accessibility through a carefully planned distribution strategy. The goal is to have them more readily and widely identified, reviewed and utilized.

3. **Education** – Considerations for support of education and training should include the elderly clients, their family members, senior and substance abuse services providers, other caregivers and gatekeepers, and health care providers that include physicians. Effective prevention requires the involvement of the individual at risk plus the complex network of associates and service providers likely to be in a position to perpetuate, identify or intervene in the substance abuse or misuse problem. The recommendation draws on indications that multiple points of action are most effective. It also acknowledges the central role often played by others in the health and well-being of older adults.

4. **Scope-prevention** initiatives for the elderly should be wide in scope and include as part of their aims not only improvement in general health behaviors other than substance abuse and misuse but also support for secondary intervention and treatment.

   This recommendation is consistent with the suggestions of experts in the field about the need to include a range of prevention strategies with this age group. It also attends to the often-overlapping causes and consequences of health behaviors among older adults and the advantages of intervening to prevent further health compromises.
5. **Pilot program** – Pilot or demonstration programs should be considered that improve linkages between information and education efforts and individualized attention or counseling. Standard prevention approaches often fail to lead to the desired behavioral change. One solution identified to improve these outcomes is to complete more personalized follow-up, particularly with high-risk individuals. The recommendation aims to encourage the planners of elderly prevention programs to be innovative and to draw on research knowledge of what is likely to be effective.

6. **Policy** – Finally, prevention strategies should review state and agency policies that affect this age group, seeking to identify areas for specific changes directly influencing substance abuse and misuse and their prevention or intervention, as well as more general policies affecting quality of life and social roles.

This final recommendation addresses the power of policy to shape action. Policy directives have been identified elsewhere as ways to influence medication practice, improve access to substance abuse services and reduce ageism and stereotypes. Policy can lead to social change. Some part of the problems of substance abuse and misuse among the elderly would be substantially reduced with attention to the stigma, discrimination, social isolation and poverty affecting older adults.

**TREATMENT OF MENTAL ILLNESS IN THE ELDERLY**

The treatment of mental illness in the elderly has been the subject of numerous studies. It has been fairly well established that some form of treatment was better than no treatment at all (Socgin and McElreath, 1994).

**Treatment of depression**

One recent study of various forms of treatment for depression in the elderly concluded that there was enough evidence of the effectiveness of cognitive behavioral treatments and psychodynamic treatments for depression to be recommended for continued usage (Fiske, et al., 1999). One model, in particular, is the IMPACT model. IMPACT is an acronym for Improving Mood, Promoting Access to Collaborative Treatment for late-life depression.

IMPACT is a treatment model that studied approximately 1800 elderly persons who met DSM-IV criteria for major depression or dysthymia. A team that included a primary care physician, depression care-manager and a consulting psychiatrist implemented the model. The study compared groups of elderly persons who received only medication, only psychotherapy, or some combination of both. About 70 percent of participants received medication, 70 percent received psychotherapy and about 90 percent overall received some form of intervention. As participants began to improve, an assigned care manager facilitated creating a relapse prevention plan. The control group of elderly persons received visits with their primary care physician and referral to mental health specialists. About 50 percent of these participants received medication and another 25 percent received mental health intervention. The researchers followed the participants over a 24-month period and found that the IMPACT participants had superior outcomes overall, with less depression than those persons who did not receive the collaborative treatment (Hunkeler, et al., 2006).

However, studies that are more recent have compared the effectiveness of various treatments for depression in which the authors conducted a meta-analysis of 122 psychosocial and psychotherapeutic interventions. The studies primarily involved adults aged 55-76 diagnosed with depression. The meta-analysis looked at:

- Cognitive-behavioral therapy.
- Psychodynamic therapy.
- Reminiscence, relaxation, supportive, control-enhancing treatments.
- Psycho-educational treatments.

It was demonstrated that cognitive-behavioral therapy had above-average effects on depression and overall ratings of well-being. Overall, group therapy or group interventions were less effective than individual therapy. Better outcomes were found in the subjects who received treatment from more qualified therapists, particularly for those therapists who had specialized education in geriatrics (Pinquart and Soerensen, 2001).

Therefore, we can conclude from this study that therapists who have specialized training in working with the elderly and who provide cognitive-behavioral therapy on an individualized basis are likely to be the most effective with depressed elderly persons.

**Pharmacological treatment for depression**

Due to the many physiological changes that accompany advancing age, prescribing medication for the elderly can be very challenging. Swift and Triggs, (2006) noted the following physiological changes that occur in the elderly:

- Elevation of gastric pH.
- Reduction of gastric emptying rate.
- Thinning and reduction of absorptive surface.
- Decline in total body size in advanced age.
- Relative increase in total body fat until advanced age.
- Decline in metabolically active tissue.
- Decline in total body water.
- Reduction in liver mass.
- Redistribution of regional blood flow away from liver.
- Reduction in renal tubular function.

Antidepressant treatment is controversial, regardless of the age of the person. There are special considerations in prescribing medication to the elderly to treat depression. Elderly persons have different outcomes associated with the use of serotonin reuptake inhibitors than do younger persons. These medications are effective in younger people, but have a tendency to cause episodes of mania in older people for reasons that are not totally understood (Pinals, 2006).

Salzman, Wong and Wright (2002), concluded after their analysis of multiple studies involving the use of medication in treating the depressed elderly that antidepressants were, in general, effective. No one particular form of antidepressant was found to be superior to another. However, the authors also noted that the incidences of relapse among the elderly were quite high when medications were discontinued, so in conclusion, it was found to be very important for many elderly persons to be prepared to continue maintenance doses on a long-term basis. Another study found similar outcomes. As major depressive disorders do have a rather high chance of recurrence over the life course, it has been recommended that long-term maintenance pharmacological treatment is the best way to manage further recurrence (Flint and Rifat, 2000).
Marital therapy can be effective in helping older persons with depression. The use of marital (dyadic) therapy to assist a person in responding to a spouse’s depression is often helpful for couples. The elder depressed spouse can benefit when the other partner learns to communicate more effectively, reducing counterproductive negative comments (Asen, 2006).

The use of family therapy is also considered by some authors to be an ideal intervention for an elderly person who is suicidal, as the family can give support to the elderly family member. In addition, family therapy can also be a useful intervention with the elderly who are having problems coping with their adult children, who may suffer from their own mental issues and substance abuse problems (Richman, 2004).

In addition, family therapy can assist in maintaining the well-being of an elderly person. One of the keys to determining the best family therapy framework to follow is to complete a comprehensive assessment with the elder adult. The mnemonic PRACTICE (Christie-Seeley, 1984) is a model that is designed to work with the elderly in particular, and it includes the following dimensions:
- **P** - Presenting problem.
- **R** - Roles and rules.
- **A** - Affect.
- **C** - Communication.
- **T** - Time in family life cycle.
- **I** - Illness.
- **C** - Community.
- **E** - Environmental.

- The presenting problem can be the actual mental illness or other systemic issues within the family. It is important for the family therapist to gather information concerning how each family member views the problems of the elderly person.

- In terms of roles and rules, it is critical to assess family functioning before and after the presenting problem arose. The emergence of a mental illness can result in a shift in family roles. The father who was the patriarch and is now incapacitated with depression will often abdicate this role and place the mother into a new role that may be very uncomfortable for her.

- **Affect** involves the assessment of how the family express emotion.

- **Communication** looks to assess who does the talking for the family, which family members do not speak to each other and whether the communication is clear.

- **Time in family lifecycle.** Successful transition to different stages in life requires flexibility to accept the changes that come with different life stages. For example, it is important to assess how elderly people have accepted the change in caregiving roles as children leave home and start their own families. Elderly persons who have been unable to accept this change will have more difficulty with the changes in roles that come at different life cycle stages.

- **Illness** – This dimension of assessment explores the etiology of the mental and/or physical illnesses affecting the family. In addition, it is important to explore the issues of guilt and shame associated with the emergence of the illness.

- **Community** – The interviewer needs to assess what supports exist in the community and what needs are unmet for housing, medical care, social support, etc. The family also needs to be assessed to determine which, if any, supports they are willing to accept.

- **Environment** includes the assessment of housing, finances, employment, neighborhood and cultural context.

Electroconvulsive therapy

Electroconvulsive therapy, (ECT), which is sometimes known by the slang term “shock treatment” is highly controversial. It has been shown to be effective, but is generally limited to usage in the most severe cases of depression that are unresponsive to medication and psychotherapy. The National Alliance for the Mentally Ill (NAMI) states on its website, www.nami.org, that ECT has been shown to be effective, but notes that it is very difficult to receive the treatment due to the history of the misuse of the procedure and the many myths surrounding its usage. Without specifically endorsing ECT, the organization does state that it should be considered as a treatment for only appropriately assessed individuals.

There have been other studies that indicated the effectiveness of ECT for treating depression in the elderly. It was noted that 79 percent of those people receiving the treatment showed significant improvement in their depressive symptoms. However, the authors did note a significant number of side effects, including hypertension, impaired memory and mental confusion. Consequently, it was urged that subjects for this treatment be chosen carefully (Kujala, Rosenvinge, Bekkelund, 2002).

Some researchers believe strongly in ECT. Some research indicates that even one treatment of ECT can reduce depression by 21 percent (Williams, O’Brien, and Cullum, 1997). Tew (1999) reported that one-half to three-fourths of depressed elderly persons had favorable outcomes from ECT treatment. Other studies, Zorunski et al., (1988), showed that 80 percent of elderly patients received benefits from ECT. Both Zorunski and Zal (1999), suggest that ECT should be used whenever an elderly person does not respond well to medication, as well as for those who are dangerously depressed with malnutrition or psychosis.

Another meta-analysis of studies of ECT with the elderly showed that 12 studies reported the effects of ECT and found that overall it was found to be effective. In one-third of the studies, ECT was actually found to be more effective than treatments with antidepressants. Overall, the studies did not find any outstanding incidents of negative side effects from the ECT (Salzman, Wong and Wright, 2002).

Problem-solving therapy

In addition, many of the elderly who are diagnosed with depression are chronically physically disabled or ill. The co-morbidity of physical illness and depression sets up a vicious cycle in which the physical problems aggravate the depression, but the depression in turn makes it easier for people to give up hope and not adhere to their physical recovery as well. A strong need for integrated treatment exists.

In their study of depressed elderly persons with chronic obstructive pulmonary disease (COPD), Alexopoulos, Rauce, Sirey and Arean (2007) noted that the lack of energy, loss of interest in daily activities and the general apathy that accompanies depression makes it especially hard for patients with COPD to follow their physical rehabilitation. The authors identified that using a combination of therapy to help with problem-solving skills as well as techniques to help decrease the resistance to treatment appeared to be the most effective in helping to alleviate depression and to have the participants follow their treatment regime for COPD. It appears that the therapy itself had some effect on the depression, but the adherence to the medical treatment also helped participants feel better physically, which could have also alleviated some of the depression. Similar results were found in a study of depression and arthritis in the elderly. The collaborative care approach, which utilized case managers and incorporated the problem-solving therapy approach with clients, was found to result in both decreased problems with arthritis and a decrease in depression (Lin, et al., 2003).
Treatment of bipolar disorder

Many of the medications required to treat bipolar disorders are very strong with a rather high incidence of side effects. This treatment of bipolar disorder in the elderly is made more complicated by the fact that pharmacological interventions for the elderly are different due to physiological changes that occur with advancing age. For example, lithium is the drug of choice to control bipolar disorders in younger people. However, most elderly persons have somewhat diminished renal functioning, and lithium can cause complications with renal function that can be deadly in older persons (Gutman and Gutman, 2006).

Interventions which include the use of psycho-education in addition to medication have been shown to produce better outcomes than those studies in which medication alone was used (Colom, Vieta, Martinez-Aran, 2003; Colom, Vieta, Reinares, 2003).

Lithium and divalproex appear to be effective to treat mania in the elderly with bipolar disorder. However, the research in this area is still not very extensive. Other classifications of drugs, such as anti-depressants, have been examined in extremely few studies. There is almost no research on the ideal dosages or the length of administration of the medications. Age-related factors might attenuate benefit and increase vulnerability to side effects of pharmacotherapy. (Young, et al, 2004).

In examining the long-term behaviors of adults with bipolar disorder, it was also noted that persons with this diagnosis often have a hard time being compliant with medication, and this can hamper the treatment of the illness (Martire, et al., 2004).

Treatment for anxiety

There have not been a large number of studies pertaining to the treatment of anxiety in the elderly. One of the few in recent years indicated that risperidone proved useful in the treatment of anxiety disorders (Morigo, 2004). Benzodiazepines have been used to treat anxiety for decades, but are not always the best course of treatment for the elderly as they tend to cause sedation, mental confusion and lack of physical coordination, even at fairly low doses. In addition, the tolerance for benzodiazepines builds very quickly and therefore requires the use of higher and higher doses to achieve the same results (Ettinger and Kanner, 2006).

In a meta-analysis of the treatment of anxiety in older persons, the average participant had suffered from anxiety for 19 years, had an average age of 69, and two-thirds were women. Behavioral interventions and medication were examined across all studies, and medication appeared to have some advantage over therapy for symptom improvement. Overall, control groups who received no treatment showed improvement in about 30 percent of cases. No particular form of therapy showed superiority over another. Nor were any outstanding differences found between classes of drugs used to treat anxiety (Pinquart and Duberstein, 2007).

Another study comparing different forms of cognitive behavioral therapy (CBT) did show that it was effective for generalized anxiety disorder. An enhanced form of cognitive behavioral therapy included learning and memory aids designed to make the therapy more effective with elderly patients. Homework reminders, troubleshooting calls and a weekly review of all concepts and techniques were compared with standard cognitive behavioral therapy. The enhanced version was found to be more effective.

Cognitive behavioral therapy has shown promise as an effective treatment in the elderly who suffer from anxiety. CBT with the elderly has been studied far less than the use of CBT with younger people, but it has been shown to be effective in younger people. Therefore, it has been generally assumed that it would also work well with the elderly. However, few studies have empirically tested this theory.

Services for the elderly

There is an array of services to help the elderly when they are unable to fully function, either mentally or physically. In general, case management services are not offered exclusively for mental health issues, but programs include services for the mental health needs of the elderly as part of services that are already offered. Most states do have some sort of program to serve the elderly. In Florida, for example, the Department of Elder Affairs has local offices called Area Agencies on Aging that link the elderly to a variety of programs in their county. The state level program is primarily aimed at seniors with physical impairment and offers case management, meal delivery, legal assistance, adult day care, respite services and emergency response. Fees are often charged on a sliding scale basis. In South Florida, which has a high number of senior citizens, private agencies, such as Jewish Social Services of South Florida, offer a wide and comprehensive array of services to the elderly, including in-home therapy and case management.

However, for those elderly who live in rural areas or in states with low numbers of elderly persons, services are often very limited. For the rural elderly in particular, access to services is very difficult. Many elderly persons in rural areas live in poverty and have little access to transportation. However, some efforts, such as mobile teams of psychiatrists and therapists to access rural areas, have provided more help to some communities. Though even 20 years ago, telephonic therapy was heralded as a cutting-edge idea that could provide more access to therapy and other services, there were issues related to funding of these services through Medicare, and this great technological idea never really materialized (Kirchner, 1981).

The New York State Office for the Aging lists detailed services for health care, housing, energy and transportation, and some social services that are primarily related either to persons with Alzheimer’s or caregiver support groups. Yet, “mental health” receives only one link that connects to a list of county mental health departments, with no details given about the type or availability of services. In Texas, the Department of Aging and Disability focuses on a range of services, such as housing and health care and information about adult daycare. But there is no mention of mental health services in any explicit way, and only a link is provided to a general help line for an array of services. Iowa, California and Georgia are among the states that offer a typical range of services to the elderly, including comprehensive services, meal delivery, emergency response, homemaker services and respite care.

Some states, such as South Dakota, offer case management to the elderly as a way to assess needs, link families to resources in the community and hopefully avoid crisis situations before they occur. Assessment and treatment planning are utilized with the ultimate goal of preventing seniors from moving into institutional care before it is truly needed, or in some cases, prevent residential care from occurring at all. Vermont is another state that appears to have a more comprehensive approach to working with elderly persons with mental health needs, through its Elder Care program, which is a joint effort of the mental health and aging departments of the state government. This program provides a senior help line, counseling, case management and medication monitoring specifically aimed at elderly persons.
In addition to state-run programs, many private agencies offer senior care management for private-paying individuals. These agencies typically offer a variety of services, including assessment, medical in-home care, case management and guardianship. Still, many of these agencies, both public and private, do not mention mental health needs as part of their assessment or services. There are some references to dementia and Alzheimer’s disease, but with a few notable exceptions, little reference to or focus on depression, substance abuse, anxiety and other mental disorders.

There has been a small amount of research conducted on the efficacy of case management in the elderly mentally ill. Arean, Alexopoulos and Chu (2007) studied the benefits of case management for a group of low-income, depressed seniors. Low-income seniors who received therapy for depression reported having too many life concerns that could not be adequately addressed in therapy alone, such as financial, transportation and housing problems. The authors conducted a study with control groups of seniors who received only CBT, only case management, and a combination of case management and CBT. The group who received both CBT and case management had better outcomes than those seniors who only received CBT, or only received case management.

How can you help research on dementia?

People with dementia and others who wish to help research on dementing disorders may be able to do so by participating in clinical studies designed to learn more about the disorders or to test potential new therapies. Information about many such studies is available free of charge from the federal government’s database of clinical trials, clinicaltrials.gov (http://clinicaltrials.gov).

Information about clinical trials specific to AD is available from the Alzheimer’s Disease Clinical Trials Database (http://www.nia.nih.gov/alzheimers) a joint project of the U.S. Food and Drug Administration and the National Institute of Aging (NIA) that is maintained by the NIA’s Alzheimer’s Disease Education and Referral Center.

For clinical trials taking place at the National Institutes of Health, additional information is available from the following office:

Patient Recruitment and Public Liaison Office

Clinical Center
National Institutes of Health
Building 61, 10 Cloister Court
Bethesda, MD 20892-4754

800-411-1222 | 866-411-1010 (toll free) | TTY: 301-594-9774 (local)

http://clinicalcenter.nih.gov/

Voluntary health organizations may be able to provide information about additional clinical studies.

Conclusion

Mental health of older adults can be improved through promoting active and healthy ageing. Mental health-specific health promotion for the older adults involves creating living conditions and environments that support wellbeing and allow people to lead healthy and integrated lifestyles. Promoting mental health depends largely on strategies which ensure the elderly have the necessary resources to meet their basic needs, such as:

- Providing security and freedom
- Adequate housing through supportive housing policy
- Social support for elderly populations and their caregivers
- Health and social programs targeted at vulnerable groups such as those who live alone, rural populations or who suffer from a chronic or relapsing mental or physical illness
- Violence or older adults maltreatment prevention programs
- Community development programs

There are many elderly persons in the United States who are not receiving appropriate mental health screening, diagnosis and intervention. In addition, many areas of mental illness treatment for the elderly have a paucity of research studies that use control groups and longitudinal outcomes on which to base best practices.

Much of the therapeutic and pharmacological treatments utilized for the elderly are based on studies done with much younger persons and ignore the fact that elderly persons do not have the same psychosocial needs or physiological makeup. In addition, elder clients may not respond as well to therapy interventions as would a younger person, so their medications may also affect them differently. Though many elderly persons in the United States are also from ethnic minority groups, very few social workers, therapists and psychiatrists are given the appropriate cultural diversity training to enable them to engage their elderly clients most effectively.

Many nursing homes do not have staff adequately trained to recognize mental health issues or the fact that residents may be overmedicated. Consequently, residents may be prescribed incorrect medications with the intention of regulating their behaviors. Those elderly persons who live in their homes, either alone or with family, often do not receive appropriate mental health interventions because they generally receive screening, diagnosis and treatment from their general practitioners – medical doctors who lack the expertise needed to recognize and treat mental illness.

At particularly high risk for mental health problems are elderly persons who also function as caregivers. Often, these persons are underserved by social service and mental health agencies in their communities. A few states have comprehensive service networks for the elderly, and quite a few private agencies exist to help families coordinate services. Many services only focus on Alzheimer’s and/or physical problems and ignore mental health problems. Some mental health prevention services exist, but few are currently funded even though several studies have shown that case management and a problem-solving approach can help to engage elderly persons in treatment sooner and more effectively.

A crisis looms on the horizon, as the lack of expertise in treating mental illness in the elderly and the scarce number of programs and resources collide with a rapidly increasing number of aging Baby Boomers. The call set forth years ago by the American Psychiatric Association has not been fully heeded, and as these needs arise without the necessary preparations in place, there will likely be a long struggle ahead and many lessons to be learned.
Glossary of terms

**Acetylcholine** – A neurotransmitter that is important for the formation of memories. Studies have shown that levels of acetylcholine are reduced in the brains of people with Alzheimer’s disease.

**Alzheimer’s disease** – The most common cause of dementia in people aged 65 and older. Nearly all brain functions, including memory, movement, language-judgment, behavior and abstract thinking, are eventually affected.

**Amyloid plaques** – Unusual clumps of material found in the tissue between nerve cells. Amyloid plaques, which consist of a protein called beta amyloid along with degenerating bits of neurons and other cells, are a hallmark of Alzheimer’s disease.

**Amyloid precursor protein** – A normal brain protein that is a precursor for beta amyloid, the abnormal substance found in the characteristic amyloid plaques of Alzheimer’s disease patients.

**Apolipoprotein E** – A gene that has been linked to an increased risk of Alzheimer’s disease. People with a variant form of the gene, called apoE epsilon 4, have about 10 times the risk of developing Alzheimer’s disease.

**Ataxia** – A loss of muscle control.

**Atherosclerosis** – A blood vessel disease characterized by the buildup of plaque, or deposits of fatty substances and other matter in the inner lining of an artery.

**Beta amyloid** – A protein found in the characteristic clumps of tissue (called plaques) that appear in the brains of Alzheimer’s patients.

**Binswanger’s disease** – A rare form of dementia characterized by damage to small blood vessels in the white matter of the brain. This damage leads to brain lesions, loss of memory, disordered cognition and mood changes.

**CADASIL** – A rare hereditary disorder linked to a type of vascular dementia. It stands for cerebral autosomal dominant arteriopathy with subcortical infarct and leukoencephalopathy.

**Cholinesterase training** – Drugs that slow the breakdown of the neurotransmitter acetylcholine.

**Cognitive training** – A type of training in which patients practice tasks designed to improve mental performance. Examples include memory aids, such as mnemonics, and computerized recall devices.

**Computed tomographic (CT) scans** – A type of brain scan that uses X-rays to detect brain structures.

**Cortical atrophy** – Degeneration of the brain’s cortex (outer layer). Cortical atrophy is common in many forms of dementia and may be visible on a brain scan.

**Cortical dementia** – A type of dementia in which the damage primarily occurs in the brain’s cortex, or outer layer.

**Corticobasal degeneration** – A progressive disorder characterized by nerve cell loss and atrophy in multiple areas of the brain.

**Creutzfeld-Jakob disease** – A rare, degenerative, fatal brain disorder believed to be linked to an abnormal form of a protein called prion.

**Dementia** – A term for a collection of symptoms that significantly impair thinking and normal activities and relationships.

**Dementia pugilistica** – A form of dementia caused by head trauma such as that experienced by boxers. It is also called chronic traumatic encephalopathy or boxer’s syndrome.

**Electroencephalogram (EEG)** – A medical procedure that records patterns of electrical activity in the brain.

**Fatal familial insomnia** – An inherited disease that affects a brain region called the thalamus, which is partially responsible for controlling sleep. The disease causes dementia and a progressive insomnia that eventually leads to a complete lack of sleep.

**Frontotemporal dementias** – A group of dementias characterized by degeneration of nerve cells, especially those in the frontal and temporal lobes of the brain.

**FTDP-17** – One of the frontotemporal dementias, linked to a mutation in the tau gene. It is much like other types of the frontotemporal dementias but often includes psychiatric symptoms such as delusions and hallucinations.

**Gerstmann-Straussler-Schneider disease** – A rare, fatal hereditary disease that causes ataxia and progressive dementia.

**HIV-associated dementia** – A dementia that results from infection with the human immunodeficiency virus (HIV) that causes AIDS. It can cause widespread destruction of the brain’s white matter.

**Huntington’s disease** – A degenerative hereditary disorder caused by a faulty gene for a protein called Huntington. The disease causes degeneration in many regions of the brain and spinal cord, and patients eventually develop severe dementia.

**Lewy body dementia** – One of the most common types of progressive dementia, characterized by the presence of abnormal structures called Lewy bodies in the brain. In many ways, the symptoms of this disease overlap with those of Alzheimer’s disease.

**Magnetic resonance imaging (MRI)** – A diagnostic imaging technique that uses magnetic fields and radio waves to produce detailed images of body structures.

**Mild cognitive impairment** – A condition associated with impairments in understanding and memory not severe enough to be diagnosed as dementia but more pronounced than those associated with normal aging.

**Mini-Mental State Examination** – A test used to assess cognitive skills in people with suspected dementia. The test examines orientation, memory and attention as well as the ability to name objects, follow verbal and written commands, write a sentence spontaneously and copy a complex shape.

**Multi-infarct dementia** – A type of vascular dementia caused by numerous small strokes in the brain.

**Myelin** – A fatty substance that coats and insulates nerve cells.

**Neurofibrillary tangles** – Bundles of twisted filaments found within neurons and a characteristic feature found in the brains of Alzheimer’s patients. These tangles are largely made up of a protein called tau.

**Neurotransmitter** – A type of chemical, such as acetylcholine, that transmits signals from one neuron to another. People with Alzheimer’s disease have reduced supplies of acetylcholine.

**Organic brain syndrome** – A term that refers to physical disorders (not psychiatric in origin) that impair mental functions.

**Parkinson’s disease** – A secondary dementia that sometimes occurs in people with advanced Parkinson’s disease, which is primarily a movement disorder. Many Parkinson’s patients have the characteristic amyloid plaques and neurofibrillary tangles found in Alzheimer’s disease, but it is not yet clear whether the diseases are linked.

**Pick’s disease** – A type of frontotemporal dementia where certain nerve cells become abnormal and swollen before they die. The brains of people with Pick’s disease have abnormal structures, called Pick bodies, inside the neurons. The symptoms are very similar to those of Alzheimer’s disease.

**Plaques** – Unusual clumps of material found between the tissues of the brain in Alzheimer’s disease. See also amyloid plaques.
Post-traumatic dementia – A dementia brought on by a single traumatic brain injury. It is much like dementia pugilistica, but usually also includes long-term memory problems.

Presenilin 1 and 2 – Proteins produced by genes that influence susceptibility to early-onset Alzheimer’s disease.

Primary dementia – A dementia, such as Alzheimer’s disease, that is not the result of another disease.

Primary progressive aphasia – A type of frontotemporal dementia resulting in deficits in language functions. Many, but not all, people with this type of aphasia eventually develop symptoms of dementia.

Progressive dementia – A dementia that gets worse over time, gradually interfering with more and more cognitive abilities.

Secondary dementia – A dementia that occurs as a consequence of another disease or an injury.

Senile dementia – An outdated term that reflects the formerly widespread belief that dementia was a normal part of aging. The word senile is derived from a Latin term that means, roughly, “old age.”

Sub-cortical dementia – Dementia that affects parts of the brain below the outer brain layer, or cortex.

Substance-induced persisting dementia – Dementia caused by abuse of substances such as alcohol and recreational drugs that persists even after the substance abuse has ended.

Tau protein – A protein that helps the functioning of microtubules, which are part of the cell’s structural support and help to deliver substances throughout the cell. In Alzheimer’s disease, tau is changed in a way that causes it to twist into pairs of helical filaments that collect into tangles.

Transmissible spongiform encephalopathies – Part of a family of human and animal diseases in which brains become filled with holes resembling sponges when examined under a microscope.

CJD is the most common of the known transmissible spongiform encephalopathies.

Vascular dementia – A type of dementia caused by brain damage from cerebrovascular or cardiovascular problem, usually strokes. It accounts for up to 20 percent of all dementia.

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References


21. According to Institute for Health Metrics and Evaluation (2010), over _______ of adults aged 60 and over suffer from a mental or neurological disorder.
   a. 20 percent.
   b. 30 percent.
   c. 50 percent.
   d. 75 percent.

22. __________ is a medical illness that affects how you feel, think and behave causing persistent feelings of sadness and loss of interest in previously enjoyed activities.
   a. Major depressive disorder.
   b. Minor depressive disorder.
   c. Anxiety disorder.
   d. Acute Stress disorder.

23. The elderly have a high rate of completing suicide because they use ________, hanging, and drowning.
   a. Prescription medication.
   b. Illegal substances.
   c. Firearms.
   d. Vehicular homicide.

24. The DSM-5 now refers to anxiety as social anxiety disorder, however it was previously known as __________ within the DSM-IV.
   a. Social isolation.
   b. Social phobia.
   c. Internal anxiety.
   d. Public phobia.

25. Of the five areas of worry, worries about __________ tended to be the most common in the elderly.
   a. Money.
   b. Family.
   c. Health.
   d. Work.

26. While __________ are typically thought to emerge relatively early in life, it is estimated by the University of Pittsburg Medical Center that 10 percent of elderly persons with bipolar disorder develop the disorder for the first time after the age of 50.
   a. Anxiety disorders.
   b. Social phobias.
   c. Neurocognitive functions.
   d. Bipolar disorders.

27. __________ are often times inappropriate for elderly persons to consume because they tend to increase confusion, sleep disorders and falls, and yet 50 percent of all psychotropic drug prescriptions are given to seniors.
   a. Alternative treatments.
   b. Psychotropic medications.
   c. Energy drinks.
   d. Dietary supplements.

28. Dementia is a __________ disorder.
   a. Sociological.
   b. Neurophonic.
   c. Neurocognitive.
   d. Sociocognitive.

29. Medications can sometimes lead to reactions or side effects that mimic:
   a. Sleep apnea.
   b. Strokes.
   c. Dementia.
   d. Depression.

30. Doctors often use __________ to identify strokes, tumors or other problems that can cause dementia.
   a. Brain scans.
   b. Blood tests.
   c. Gamma rays.
   d. EKG tests.

31. Rewarding appropriate or positive behavior and ignoring inappropriate behavior also may help control unacceptable or dangerous behaviors. This is known as:
   a. Negative reinforcement.
   b. Behavior modification.
   c. Test-control designation.
   d. Trained awareness.

32. These drugs slow the breakdown of the neurotransmitter acetylcholine, which is reduced in the brains of people with Alzheimer’s disease.
   a. Mood stabilizers.
   b. Stimulants.
   c. Cholinesterase inhibitors.
   d. Tricyclics.

33. Several studies have shown that __________ medicine reduces the odds of cognitive impairment in elderly people with high blood pressure.
   a. Psychotropic.
   b. Antidepressant.
   c. Antihyperthyroid.
   d. Antihypertensive.

34. The __________ and policy recommendations are intended to assist regulators at the Centers for Medicare and Medicaid Services (CMS) and other agencies as they make revisions to the current guidelines and quality measures for nursing homes.
   a. Confidentiality statement.
   b. Consensus statement.
   c. Release of information.
   d. Medical records.
35. “Falling out” is an emotional state that consists of dizziness and collapse and is widely recognized in the:
   a. Polynesian culture.
   c. Canadian culture.
   d. European culture.

36. Some studies have indicated that Asian Americans _________ medications such as benzodiazepines and antipsychotic medications differently than Caucasians do, which can have adverse affects for treatment.
   a. Metabolize.
   b. Interpret.
   c. Prescribe.
   d. Masticate.

37. Tertiary prevention involves efforts to halt the progression of substance abuse that is rather severe, and to stop it from becoming:
   a. A problem.
   b. In need of further assessment.
   c. Fatal.
   d. Habitual.

38. Bipolar interventions which include the use of _________ in addition to medication have been shown to produce better outcomes than those studies in which medication alone was used.
   a. Physical therapy.
   b. Cognitive therapy.
   c. In-home services.
   d. Psycho-education.

39. A diagnostic imaging technique that uses magnetic fields and radio waves to produce detailed images of body structures.
   a. MRI.
   b. EKG.
   c. EEG.
   d. OTI.

40. The word _________ is derived from a Latin term that means, roughly, “old age.”
   a. Elderly.
   b. Dementia.
   c. Senile.
   d. Falisimo.
Chapter 4: Suicide Assessment And Prevention For Health Professionals

6 CE Hours

Reviewed and edited by: Christopher Cronin, Ph.D.

Course overview

Several states have put forth a specific goal: “to decrease deaths and hospitalizations due to suicide and suicide attempts.” This is in keeping with the National Healthy People 2020 objectives. In 2009, the national suicide rate was 12 per 100,000 people in the population. This course presents an overview of suicide deaths, methods of suicide, at-risk populations, and suicide prevention strategies.

Learning objectives

- Describe the importance of suicide and suicide prevention.
- Compare the data related to suicide in the world with the United States.
- Demonstrate an understanding of the etiology of suicide and methods of committing suicide.
- Identify the risks and screening programs for suicide.
- Describe an understanding of suicide risk assessment and related interventions.
- Identify and correctly assess populations at risk for suicide such as adolescents, veterans, and older adults.
- Describe the National Violent Reporting System and its importance in understanding the significance of suicide in the United States.

Introduction

Suicide is defined by the World Health Organization (WHO) as the intentional act of killing oneself. Attempted suicide is defined as the failed intentional act of killing oneself. WHO has reported that even though suicide deaths are preventable, many governments and policymakers consider suicide a low priority (World Health Organization, 2014). On a global scale, the incidence of suicide has continued to increase. WHO reported that in 2012, more than 800,000 people died secondary to suicide. Because of the increasing number of suicides yearly, it comes as no surprise that in 2013, WHO implemented the first mental health action plan, which was adopted by the World Health Assembly. The World Health Organization’s plan includes decreasing the rate of suicide by 10% worldwide by 2020 (World Health Organization, 2014).

WHO also reported that suicide is the second most common cause of death among young people between ages 15 and 29 years. A shocking number of suicides occur in middle-income and low-income countries; up to 75% of all suicides worldwide occur in low-income families (World Health Organization, 2016).

Figure 1. Mean Medical and Work-Loss Costs per Injury Death by Intent, United States 2013

![Mean Medical and Work-Loss Costs per Injury Death by Intent, United States 2013](http://www.cdc.gov/mmwr)

Source: http://www.cdc.gov/mmwr

WHO recognizes the importance of increasing awareness of mental illness and suicide. It aims to support countries committed to making suicide prevention a priority. The World Health Organization Mental Health Action Plan was implemented in 2013. Member states committed to reducing the rates of suicide in their individual countries by 10% by 2020.

Why it is crucial for states to address the rising suicide rates

According to the Suicide Prevention Resource Center, suicide and suicide attempts take a tremendous emotional and economic toll on the families and loved ones of those who engage in suicidal behaviors. Suicidal behaviors result in medical costs for individuals and families, lost income for families, and lost productivity for employers and the community as a whole.

The financial benefits of implementing suicide preventative measures will, hopefully, convince policymakers and lawmakers that suicide prevention is not only the right thing to do morally speaking but also an investment that will save dollars as well as lives. A study by Shepard, Gurewich, Lwin, Reed, and Silverman (2015) demonstrated that the average cost of one suicide was $1,795,379. Approximately 97% of this cost was associated to lost productivity. The remaining 3% of the cost was associated with medical treatment. The yearly total cost of suicides and suicide attempts totaled $93.5 billion. The study also demonstrated that for every $1 spent on psychotherapeutic interventions, other interventions that promoted linkages between different care providers saved $2.50 in the cost of suicides (Bolton, Katz, Isaak, Tilston-Jones, & Sareen, 2013).

Incidence of suicide in different populations

Worldwide the availability of data on suicide is very sparse partly because suicide and suicidal behavior is considered illegal in many countries. Improved monitoring of suicides and suicidal behavior is necessary for better and more accurate data on suicide. The World Health Organization estimated that in 2012, 804,000 suicides occurred worldwide, corresponding to a suicide rate of 11.4 per 100,000 population. The WHO report suggests that this number is significantly underestimated given the hindrances involved with reporting suicides to the authorities (World Health Organization, 2014).
In many nations, suicide has not been identified as a public health problem and, therefore, does not get the attention that it deserves partly because the estimates of suicide rates worldwide are inaccurate and, therefore, not identified as critical (Shrivastava, Shrivastava, & Ramasamy, 2015).

Although suicide rates are lower among younger age groups than older adult groups, suicide remains one of the top-four causes of death among people ages 44 and younger. Suicide rates have been increasing among most age groups, and the suicide rate among people 45 to 64 years of age has shown an especially sharp increase.

Figure 2. Suicide Rates by Age, United States, 2000–2014

![Suicide Rates by Age, United States, 2000–2014](image1)

**Source:** WISQARS Fatal Injury Reports 1999–2014

Figure 3. Ten Leading Causes of Death United States 2014, All Races, Both Sexes

![Ten Leading Causes of Death United States 2014, All Races, Both Sexes](image2)

**Source:** WISQARS Fatal Injury Reports 1999–2014
Suicide rates vary significantly by race and ethnicity. In 2014, the rate of suicide among American Indians/Alaska Natives was 17.47 per 100,000; among Caucasians, it was 17.61. In contrast, the suicide rate among Asian/Pacific Islanders was 6.26; the rate for African Americans was 5.63; and the rate among Hispanics was 5.86. Among American Indians and Alaska Natives, suicide rates peak during adolescence and young adulthood and then decline. This is a very different pattern compared to other racial and ethnic groups where the inverse is true.

Figure 4. Rate of Suicide by Race/Ethnicity, United States 2000–2014

Figure 5. Suicide Rate by Age for American Indian/Alaska Native Compared to United States

Data from official vital statistics regarding suicide:

Data from official vital statistics indicate that suicide surpassed motor vehicle traffic crashes as the leading cause of injury mortality in the United States in 2009. However, this increase may have occurred several years prior but remained undetected. The rate of pharmaceutical and other drug-intoxication deaths rose by 125% between 2000 and 2013 (Rockett, Lilly, Jia, Larkin, Miller, Nelson, & Caine, 2016; Rockett, Hobbs, Wu, Jia, Nolte, Smith, & Caine, 2015). Most of these deaths were classified as either accidental or undetermined. Suicide is likely the most underestimated cause of death by both clinical medicine and public health officials given that its true incidence is underestimated by death investigations that are inadequate for validly establishing different manners of death. Without valid data, it is difficult to accurately identify risks and risk groups and subsequently design appropriate interventions. The variation in death
investigation procedures and practices between different states could affect the manner of death comparisons at a national level (Rockett et al., 2016; Rockett et al., 2015).

Poisoning is less likely to be included in the deaths related to suicide compared to deaths caused by firearm trauma, hanging, or asphyxiation. In the United States, it has been suggested that the category of accidental deaths include many more suicides annually compared to the undetermined category given its much larger absolute numbers and the recommendation from professional organizations that utilization of the undetermined category should be reserved for those rare cases where available evidence could support more than one manner of death (Rockett et al., 2016; Rockett et al., 2015).

Certain studies have suggested that authorities consider repeated drug use as evidenced by multiple needle marks and prescription shopping by going from prescriber to prescriber as ascertained through drug-monitoring programs. A suicide manner-of-death determination, in principle, requires that a medical examiner or coroner confirms that the mechanism of death was self-inflicted and that it was the person’s intention to die (Rockett et al., 2016; Rockett et al., 2015).

Factors affecting the appropriate reporting of suicides certification include social stigma, punitive life insurance policy, lack of psychiatric and psychological input into manner-of-death determinations, lack of reliable witness testimony, low autopsy rate, and training deficits among death investigators and public health officials.

**State-by-state distribution of drug deaths: Report of a study**

A descriptive study examined data between 2008 and 2010 and showed differences between states in the distribution of fatal drug intoxications across the homicide, suicide, accident, and undetermined manner-of-death categories. The study also evaluated the documentation of one or more specific drugs on the death certificate. The homicide category was negligible and made up less than 1% of drug-intoxication deaths (Rockett et al., 2016; Rockett et al., 2015).

In the United States, the undetermined category ranged from 1% of all drug-intoxication deaths in Wyoming to 85% in Maryland. Overall, it was higher than 5% in 11 states and 15% or higher in 8 states. The documentation of one or more specific drugs on the death certificate in drug-intoxication deaths ranged from 34.8% in Louisiana to 99.4% in West Virginia.

Rockett et al. (2015) proposed that decentralized county coroner systems were more likely to have the least forensic expertise and resources, the least uniform death-investigation protocols, the least standardized measurement, and the least quality control. And they were the most sociopolitically vulnerable or handicapped in determining the most accurate etiology of suicide. Furthermore, the coroner system and the medical examiner system generally operate on disparate philosophical and forensic approaches in their respective processes of death investigations (Rockett et al., 2016; Rockett et al., 2015).

Medical examiners are appointed, are usually physicians with training in pathology and forensic pathology, and tend to be board certified in one or both disciplines. They may serve multiple counties within the same state and sometimes may serve an entire state. On the other hand, coroners are lay county-level officials who are generally elected and have very little medical knowledge—if any at all. Although some coroners may employ certified forensic pathologists in their offices, this is not a requirement. Coroners, in general, have less experience with toxicological terminology than do their medical examiner counterparts (Rockett et al., 2016; Rockett et al., 2015).

In addition, coroners are more likely to feel greater budgetary constraints when considering whether to obtain toxicological tests while conducting forensic death investigations as a whole. With this caveat in mind, it was not totally unexpected when only 62% of decentralized county coroner states specified at least one drug in certifying their drug-intoxication deaths between the years 2008 and 2010 as opposed to 92% of centralized medical examiner system states. States with a mix of decentralized coroner and medical examiner systems documented about 73% of cases; 71% of decentralized medical examiner system states specified at least one drug in certifying drug intoxictions deaths (Rockett et al., 2016; Rockett et al., 2015).

Five variables were identified that could affect the incidence of suicide in communities:
1. Age distribution.
2. Gender ratio.
3. Urbanization rate.
4. Poverty rate.
5. Region.

Age and gender showed an association with potential suicide misclassification by medical examiners and coroners at the individual level.

The poverty and urbanization rates influenced whether there was an available level of expertise and resources to support high-quality medical and legal death investigations independent of the death-investigation system type. The last sociodemographic variable, region, was an important consideration because of significant historical differences in suicide rates between certain regions—suicide rates tend to be higher in states west of the Mississippi River.

During the observation period 2008 to 2010, drug-intoxication death rates ranged from 4.8 per 100 000 population in North Dakota to 23.4 in New Mexico. Drug-intoxication suicide rates varied between 0.6 per 100 000 in North Dakota and 3.7 per 100 000 in New Mexico. Percentages peaked in the West and Midwest and were lowest in Oklahoma, Massachusetts, Connecticut, and a corridor extending from Louisiana, Mississippi, Alabama, and Georgia in the South through to Ohio, Maryland, Pennsylvania, and New Jersey. When analyzed by region, Western, Midwestern, and Northeastern states, respectively, showed 43%, 41%, and 33% higher odds than southern states of classifying a nonhomicide drug-intoxication death as suicide (Rockett et al., 2016; Rockett et al., 2015).

There was a positive association between citation of one or more specific drugs on the death certificate in states and classification by a state of a nonhomicide drug-intoxication death as suicide versus accident or undetermined. However, centralized medical examiner states showed no statistically significant difference from decentralized county coroner system states in their odds of suicide classification.

Compared to medical examiner systems, county coroner systems are disproportionately located in more rural and less affluent areas of the country. Coroner offices comprise approximately 68% of the medicolegal death investigation offices nationwide, but a majority of them serves populations of fewer than 25,000.

Using the words abuse, addiction, or misuse on the death certificate may lead to categorization of drug-intoxication fatalities, including possible suicides, as mental disorders across sociodemographic groups.

**Suicide rate in the United States: Report of a study**

Despite multiple suicide prevention efforts, the suicide rate in the United States has changed relatively little over the past 100 years. The National Institute for Health and Clinical Excellence (NICE), in 2011, published self-harm guidelines. O’Neil, Peterson, Low, Carson, Dennson, Haney, Shiroma, and Kansagara (2012) reported that when there is behavior that is self-directed and deliberately results in injury or the potential for injury to oneself, there is evidence, whether implicit or explicit, of suicidal intent. The group conducted a review focused on counties and populations of interest because of their similarity to U.S. veteran and military populations.

O’Neil et al. (2012) attempted to answer certain fundamental questions. The first question they sought to answer: Are there any
effective specific interventions for reducing rates of suicidal self-directed violence in military and veteran populations? They found that there were no randomized controlled trials that had addressed self-directed violence prevention interventions in military and veteran health care settings.

The second question they sought to answer: was What lessons can be learned from suicidal self-directed violence prevention and intervention research conducted outside of veteran or military settings that can be applied to veteran and military populations? O’Neil et al. (2012) specifically investigated the effectiveness of pharmacotherapy in preventing the incidence of suicide. They noted that antidepressant trials did not show a benefit for reducing suicide. However, they warned that the rates of suicide may have been too low to detect a difference in the suicide rates.

They then performed a systematic review of psychotherapeutic interventions that included different studies of antipsychotic medications. Overall, positive findings were reported from trials that included flupenthixol (Dexiplol, Fluonixol), clozapine (Clozaril, FazaClo), and fluphenazine (Prolixin), although the studies were performed on a very small sample population.

They then examined studies that compared antidepressant medications versus placebo, one antidepressant versus another, and antidepressant therapy versus cognitive behavioral therapy. Most of these studies were of short duration and low participant numbers and would not have had the statistical power and duration of follow-up to allow the medication to effect a change in suicide rates anyway. Consequently, they were felt to be of low strength and, therefore, insufficient for determining the effectiveness of various combinations of antidepressant medications for reducing suicidal self-directed violence. Multiple previously published studies reported an overall insufficient to low strength of evidence for the effectiveness of any psychotherapeutic intervention in prevention of self-directed violence (O’Neil et al., 2012).

Individual psychotherapy results reported mixed findings related to cognitive behavioral therapy. Positive findings were reported related to dialectical behavior therapy for people with borderline personality disorder (VA Suicide Prevention Program, 2016).

Positive findings have been found for interpersonal psychotherapy, for problem-solving therapy, for psychoanalytically oriented partial day hospitalization for people with borderline personality disorder, and for transference-focused psychotherapy. Null findings have been found for outpatient day hospitalization. Notably, these results were presented in previous reports as coming from very few studies with small sample sizes, many methodological flaws, and short-term follow-up assessment periods, suggesting that all findings are of insufficient to low strength and should be interpreted with caution (O’Neil et al., 2012).

In their study, O’Neil et al. (2012) reported that they found no randomized controlled trials addressing the question: What is the effectiveness of referral and follow-up services for reducing the rates of suicidal self-directed violence in military and veteran populations?

National violent death reporting system

The Healthy People 2020 objectives previously mentioned represent national goals to prevent disease, disability, injury, and premature death and to promote health equity and improve the health of all groups. Healthy People 2020 includes objectives for reducing suicides by 10%, homicides by 10%, and firearm-related deaths by 10%. It also includes calls for an increase in the number of states that link data on violent deaths from death certificates, law enforcement, and coroner/medical examiner reports at the state and local levels. The status of progress toward the Healthy People 2020 objective to reduce the suicide rate can also be directly measured using data from the Centers for Disease Control’s National Violent Death Reporting System (NVDRS).

To prevent the occurrence of violent deaths in the United States, public health authorities need accurate, timely, and comprehensive surveillance data. The NVDRS began in 2000 when the Centers for Disease Control began planning and writing goals for the system. The system has four system-specific goals (Parks, Johnson, McDaniel, & Gladden, 2014):

1. To collect and analyze timely, high-quality data that monitor the magnitude and characteristics of violent death at the national, state, and local levels.
2. To ensure data are disseminated routinely and expeditiously to public health officials, law enforcement officials, policymakers, and the public.
3. To ensure data are used to develop, implement, and evaluate programs and strategies intended to reduce and prevent violent deaths and injuries at the national, state, and local levels.
4. To build and strengthen partnerships among organizations and communities at the national, state, and local levels to ensure that data are collected and used to reduce and prevent violent deaths and injuries.

Before the implementation of the NVDRS, single data sources, such as death certificates or law enforcement data systems, were used to provide data regarding violent deaths. But they provided only limited information and a narrow context from which to understand patterns of deaths collected by the system. This data system fills this gap in surveillance by providing detailed information on circumstances precipitating violent deaths. The NVDRS was the first data system to link multiple-source documents on violence-related deaths to enable researchers to understand each death more completely and accurately (Parks et al., 2014).

It was also the first system to link multiple deaths related to one another, such as multiple homicides, multiple suicides, and cases of homicide followed by the suicide of the suspected perpetrator. It compiles information from multiple data sources, as mentioned earlier, then merges documents for each death and links deaths that are related—such as multiple homicides, a homicide followed by a suicide, or multiple suicides—into a single incident (Parks et al., 2014).

The NVDRS defines a violent death as a death resulting from the intentional use of physical force or power against oneself, another person, or a group or community. The information is collected on unintentional firearm-injury deaths—such as incidents in which the person causing the injury did not intend to discharge the firearm—and deaths of undetermined intent. All the information collected is then organized and coded on the basis of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) or on the basis of manner of death assigned by the coroner, medical examiner, or law enforcement (Parks et al., 2014).

Following are the specific variables analyzed by the NVDRS (Parks et al., 2014):

- The manner of death, which deals with the intent of the person inflicting the fatal injury, such as homicide/legal intervention, suicide, or unintentional.
- The mechanism of injury, which addresses the method used to inflict a fatal injury and the circumstances surrounding the injury, that is, the events that preceded and were identified by investigators as relevant and contributory to the infliction of a fatal injury.
- Whether the person who died was a victim of a violence-related injury.
The circumstances that preceded a fatal injury are reported based on events that might have contributed to the infliction of a fatal injury. The circumstances preceding death are defined as the precipitating category excludes legal executions. In this report, legal intervention killed by a law enforcement officer or other peace officer while acting a death from legal intervention is a death in which the deceased is a self-inflicted injury.

Evidence indicating another. This category includes coroner or medical evidence indicating that one manner of death is no more compelling than evidence indicating the use of force was intentional. This category includes deaths of persons who planned only to injure rather than kill themselves. It also includes deaths associated with risk-taking behavior without clear intent to inflict fatal injury but associated with high risk for death and suicides in which a passive assistance was provided to the deceased, such as when information is provided to someone on how to complete the act. Of note, this category does not include death secondary to substance abuse, acute or chronic. Nor does it include deaths secondary to erotic behaviors, such as strangulation (Parks et al., 2014).

Homicide is defined as “death resulting from the use of physical force or power, threatened or actual, against another person, group, or community when a preponderance of evidence indicates that the use of force was intentional.” Included in this category is arson without an intent to injure a person and stabbing with unspecified intent. This category does not include death from unborn fetuses, vehicular homicide without intent to injure, unintentional firearm deaths, and combat deaths or acts of war.

An unintentional firearm death is one that results from a penetrating injury or gunshot wound with supporting evidence that indicates that the shooting was not directed intentionally at the deceased. Examples include the death of a person as a result of celebratory firing that was not intended to frighten or harm anyone, a soldier shot during a noncombat field exercise, or a person who received a self-inflicted wound while playing with a firearm. This category does not include deaths caused by nonpowered firearms, such as pellet guns (Parks et al., 2014).

Death of undetermined intent is a death that results from the use of force or power against oneself or another person with the evidence indicating that one manner of death is no more compelling than evidence indicating another. This category includes coroner or medical examiner rulings, such as accident or suicide, undetermined injury, and self-inflicted injury.

A death from legal intervention is a death in which the deceased is killed by a law enforcement officer or other peace officer while acting in the line of duty, including military, police, and National Guard. This category excludes legal executions. In this report, legal intervention deaths are grouped with homicides (Parks et al., 2014).

The circumstances preceding death are defined as the precipitating events that might have contributed to the infliction of a fatal injury. The circumstances that preceded a fatal injury are reported based on the content from the coroner or medical examiner and law enforcement investigative reports.

Each state is required to report all deaths within six months of the end of each calendar year for the preceding one-year time frame. Subsequently, the states then have an additional 12 months to complete each incident record. Even though most states meet these timelines, additional details sometimes arrive after a deadline has passed. Based on experience, the CDC estimates that case counts might increase by 1% to 2% after the initial 18-month data-collection period (Parks et al., 2014).

**NVDRS findings: Report of a study**

The NVDRS collects and organizes data regarding violent deaths obtained from death certificates, coroner/medical examiner reports, law enforcement reports, child fatality review team data, supplementary homicide reports, hospital data, and crime laboratory data. Data collection for this report began in 2003 with seven states that were initially included in the study: Alaska, Maryland, Massachusetts, New Jersey, Oregon, South Carolina, and Virginia. In 2004, six more states joined the study: Colorado, Georgia, North Carolina, Oklahoma, Rhode Island, and Wisconsin. California, Kentucky, New Mexico, and Utah joined in 2005. Ohio and Michigan joined in 2010 for a total of 19 states (Parks et al., 2014).

The data from California stopped being collected after 2009. Ohio and Michigan did participate in data collection, but the data collected were not statewide until 2011. Consequently, the data from these three states were excluded from this report. Of note, the 16 states included make up approximately 27.6% of the United States population (Parks et al., 2014).

Once the data are collected on the manner of death (also known as the intent) for each person, a group of trained people (called abstractors) takes into account information from all source documents. Typically, the manner of death assigned is most consistent with that reported in all the source documents. If a discrepancy occurs among the source documents, the abstractor must assign a manner of death on the basis of the preponderance of evidence in the source documents. Five abstractor assigned manners of death were used in this study (Parks et al., 2014):
1. Suicide.
2. Homicide.
3. Unintentional harm.
4. Undetermined intent.
5. Legal intervention.

According to the NVDRS, an estimated 55 000 persons die annually in the United States as a result of violence-related injuries. This report summarizes data from the CDC regarding violent deaths from 16 U.S. states for 2010. Results are reported by sex, age group, race/ethnicity, marital status, location of injury, method of injury, circumstances of injury, and other selected characteristics (Parks et al., 2014).

The NVDRS captured 15,781 fatal incidents involving 16,186 deaths in 2010 from the previously discussed participating states. The major cause of death was suicide, accounting for almost 62.8% of all deaths. The second most common cause of death was homicide, followed by deaths involving legal intervention. Deaths involving legal intervention include deaths caused by law enforcement and other individuals legally authorized to use deadly force. Of note, the category of death involving legal interventions excludes legal executions. Deaths from undetermined intent accounted for approximately 12.2%; unintentional firearm deaths accounted from 0.7% (Parks, et al., 2014).

Suicides occurred at higher rates among males, Caucasians, American Indians/Alaska Natives, and people between ages of 45 and 54 years. In this study, the suicides most often occurred in a house or an apartment and involved the use of firearms. Most suicides were preceded by intimate partner problem, mental health, a physical health problem, or a crisis during the previous two weeks. Participants between ages 20 and 24 had the highest rates of homicides, with higher homicide rates occurring among African American males.
Homicide is the second-leading cause of death for people between ages 15 and 24 years and the third-leading cause of death for persons aged 1 to 4 and 25 to 34 years. Suicide is the second-leading cause of death for people between ages 25 and 34 years and, the third-leading cause for persons aged 10 to 14 and 15 to 24 years. Most of the homicides involved the use of a firearm. Homicides tended to occur in a house, apartment, or on a street or on a highway. Homicides tended to be precipitated primarily by interpersonal conflict or arguments or in association with another crime (Parks et al., 2014).

This report confirms the previously reported findings that violent deaths that result from interpersonal violence or are self-inflicted tend to disproportionately affect people younger than 55 years, males, and certain specific populations. In 2010, homicides and suicides were mostly precipitated by mental health problems, relationship problems, interpersonal conflicts, and recent crises (Parks et al., 2014).

Data from this study can be used to monitor potentially predict the occurrence of violence-related fatal injuries and assist public health authorities in the evaluation, development, and implementation of programs and policies to reduce and prevent violent deaths at the local, state, and even national levels. These data can also be used to enhance existing programs. The ultimate goal of the NVDRS is to have participation from all 50 states (Parks et al., 2014).

In this study, data were obtained from individual information sources and entered into a source-specific data system. In addition to allowing independent entry of individual sources, this approach permits later review of what each source contributed with subsequent identification of missing sources. This approach allows for comparisons of the thoroughness and comprehensiveness of data sources from specific states; thus it allows states to provide feedback to sources regarding the consistency of their data (Parks et al., 2014).

A total of 15,781 incidents and 16,186 deaths occurred during 2010, corresponding to a crude death rate of 19.7 deaths per 100,000 population. Suicide as a category accounted for the highest cause of violent death, 10,167, corresponding to 62.8% of the total, and 12.4 deaths per 100,000 population. Homicide and legal-intervention accounted for 24.4% of the total, 3949 cases. The total number of deaths from undetermined intent was 1973, equaling 12.2% of the total. Lastly, unintentional firearm deaths accounted for only 0.7% of the total number of violent deaths, 97 deaths in total (Parks et al., 2014).

Firearms accounted for 49.6% of included deaths; poisoning for 17.3%; and hanging, strangulation, and suffocation for 16.7%. A total of 33.5% of decedents tested positive for alcohol. Among those who tested positive for alcohol, 63.1% had a blood alcohol concentration greater than or equal to 0.08 g/dL, the legal limit in all states. Opiates, including heroin and other narcotics, were identified in 24% of cases tested for these substances, antidepressants in 20.4%, marijuana in 15.2%, cocaine in 7.8%, and amphetamines in 4%. These data indicate that a large number of violent deaths occur under the influence of alcohol or other narcotics (Parks et al., 2014).

There was little variation in the rates of suicide by months of death. The overall suicide rate was 12.4 per 100,000 population. The rate for males was nearly 4 times greater than that for females: 19.8 compared to 5.3 per 100,000 population, respectively. American Indian/Alaska Natives had the highest rate of suicide deaths at 16.5 per 100,000 population. Caucasians were next in line with a rate of 15.4 per 100,000 population (Parks et al., 2014).

When stratifying the decedents by age group, researchers noted that suicide rates were higher among persons aged 45 to 54 years, 55 to 64 years, and 35 to 44 years, corresponding to 19.3, 16.8, and 15.9 per 100,000 population, respectively. The lowest rates of suicide were noted among children aged 10 to 14 years, corresponding to 1.3 per 100,000 population. Adolescents had a suicide rate approximately half that of decedents between ages 35 and 64 years. The highest suicide rates among males were noted among decedents older than 85 years. Among all ethnic groups, Asian and Pacific Islander males had the lowest rates of suicide (Parks et al., 2014).

Among females, women between the ages of 35 and 64 years had the highest rate of suicide, corresponding to 54.3%, more than half of suicides among males. Similar to the male group, American Indians and Alaska Natives had the highest rates of suicide, followed by Caucasian women. The lowest rate of suicide among women was noted among African Americans. Of all the suicide decedents older than age 18, 30% had never been married, 39.1% were married, and 22% were divorced at the time of death (Parks et al., 2014).

Among female decedents, the most common method used to commit suicide was poisoning, which was used about 37% of the time, followed by firearms, which were used about 30.6% of the time. In males, firearms were used in more than half of the total number of suicides, corresponding to 51.7%. The second most commonly used method of suicide was hanging, strangulation, or suffocation, accounting for about 25% of suicides. The most common location for self-inflicted injuries was a house or an apartment, corresponding to 75.4% of all suicides. Natural areas were the second most common location, about 4.1%, followed by streets or highways, about 3.2%. Of note, 134 suicides occurred in a jail or prison setting (121 males and 13 females), corresponding to 1.3% of all suicides (Parks et al., 2014).

Multiple tests were conducted to assess the presence of alcohol or other drugs, including antidepressants, cocaine, and opiates; 66.4% of all suicide decedents tested positive for alcohol. About 23.8% of the cases tested positive for antidepressants. A total of 44% of the decedents had a diagnosed mental health problem; about a third of these were receiving mental health treatment. Greater than 75% of those with a diagnosis of a mental health disease had a diagnosis of depression (Parks et al., 2014).

For all the suicide decedents, the study conductors obtained information surrounding the deaths for a total of 9032 suicide decedents. Of these, 20.9% had a history of previous suicide attempts; 33.3% left a suicide note; 33.2% disclosed their intent before committing suicide. Other conditions that affected suicide decedents were intimate partner problems, noted in 31.2% of decedents; a crisis of some kind in the preceding two weeks, noted in 26.9% of decedents; physical health problems, noted in 22.4% of cases; job problems in 15.4% of deaths; and financial problems in 13.6% of deaths (Parks et al., 2014).

More female decedents were observed to have a depressed mood at a time of their death than males did, 42.7% versus 39.8%. More females received a mental health diagnosis than males did, corresponding to 61.9% of decedents compared to 38.9% of males. It was not surprising to learn that the percentage of females and males being treated for their mental health diagnosis was lower, corresponding to 47.1% of females and 26.5% of males (Parks et al., 2014).

Overall, the homicide rate was 4.8 deaths per 100,000 population. Most homicide decedents aged 18 years or older had never been married, corresponding to 57.3%; up to 21.8% were married at the time of their death. In the case of homicide decedents, the relation of the victim to the suspect was unknown in 52.5% of homicides, committed by an acquaintance or friend in 11% of homicides, committed by a spouse or intimate partner in 10.2%, and committed by a stranger in 4.5% of cases. The homicide rate for males was almost 4 times greater than that for females, corresponding to 7.7 and 2.1 per 100,000 population, respectively (Parks et al., 2014).

Non-Hispanic African Americans accounted for the highest rates of homicide, corresponding to 15.2 deaths per 100,000 population. American Indians and Alaska Natives were second with 10 deaths per 100,000 population. Age-specific homicide rates were highest amongst those between the ages of 20 and 24 years, corresponding to 11.7 deaths per 100,000 population (Parks et al., 2014).
There are several limitations of the National Violent Death reporting system, including the fact that only 16 states participated in the study. Furthermore, the study relied on the availability of partnerships between state health departments, vital statistics registrars’ offices, coroner/medical examiners, and law enforcement personnel. Data sharing and communication among partners has proved to be extremely challenging, especially when states have independent county coroner systems rather than a centralized coroner/medical examiner system (Parks et al., 2014).

Comparing demographically similar populations: Report of a study
Reyners, Kerkhof, Molenbergh, and Van Audenhove (2015) compared two regions with similar socioeconomic indicators, language, and geographic and demographic characteristics but very different suicide rates. The two regions discussed in their study that met those conditions are Flanders and the Netherlands. The Flanders refers to the northern Dutch-speaking regions of Belgium. The researchers compared the data for the year 2012. They noted that the fertility rate was 1.75 and 1.72; the percentage of students in all levels of education was 25.3 percent and 25.2 percent; the population density was 478.2/km2 and 496.9/km2; the unemployment rate was 4.5 percent and 5.3 percent; and the percentage of people at risk of poverty was 15 and 15.7 for Flanders and the Netherlands, respectively (Reynders et al., 2015).

This study included people between the ages of 18 and 65 years randomly selected. Equal samples were collected in each region. Each respondent received a questionnaire and a guided letter with instructions. Participants were specifically asked for their personal lifetime experiences with suicidal ideations and suicidal behaviors. Three questions were asked, each referring to a phase of the process of suicide: 1) death wish, 2) suicide plan, 3) suicide attempt (Reynders et al., 2015).

The participants were specifically asked if they would seek help if they were confronted with psychological problems. The researchers then distinguished the three types of help: 1) professional help, including help from a primary care provider, a psychotherapist, or a psychiatrist; 2) informal help, which referred to help from friends and family; 3) passive coping, which meant not seeking help. This implied that respondents would do nothing and hoped that the psychological problems would resolve on their own. The participants were also asked if they had ever received help for psychological problems from a general practitioner, a psychotherapist, or a psychiatrist (Reynders et al., 2015).

The concept of psychological problems was explained using two vignettes describing a man and woman with depressive symptoms—feeling fatigue, helpless, worthless, down, feeble, and sad—over several weeks. They had little energy for fulfilling daily tasks or doing sports. They also had diminished interests, sleeping problems, and suicidal thoughts (Reynders et al., 2015).

The researchers found a great difference in the suicide rates between these two Dutch-speaking regions. The Flemish suicide rates were almost 80% higher than those of the Netherlands, which corresponds to 15.4 per 100,000 inhabitants in Flanders versus 8.8 per 100,000 inhabitants in the Netherlands. In spite of these differences in suicide rates, the incidence of lifetime suicidal ideations was similar: 8.2% in the Netherlands, 8.4% in Belgium. Suicide attempts were 2.3% and 2.5% for the Netherlands and Flanders, respectively. Although suicidal ideations and behaviors are assumed the most common precedents of suicide on an individual level, this study suggests at the global level, an association between suicidal ideation and the incidence of suicide itself (Reynders et al., 2015).

It is argued that from the epidemiological perspective, the suicidal process is not a linear transition from ideation to attempt to suicide. From the discussion above, one could assume that people from the Netherlands tend to cope differently and more effectively with psychological and suicidal problems compared to Flemish people resulting in higher suicide rates among the Flemish (Reynders et al., 2015).

Reyners et al. (2015) further reasoned that people with a suicidal past differ from people with no suicidal past as it relates to intentions, attitudes, and stigma associated with help-seeking behaviors and attitudes toward suicide. They hypothesized that compared to people with no suicidal past, people with a suicidal past had weaker motivation to seek psychological help, perceived more stigma, experienced more self-stigma and shame related to help-seeking behaviors, and had more approving attitudes toward suicide. The researchers had anticipated that these differences would be more apparent in Flanders than in the Netherlands.

Results showed that among people with a suicidal history, women received professional psychological help more frequently than men did and that they expressed the intention to seek informal and professional help more frequently than men did. Men reported that they would cope passively with psychological problems more often and that they were more likely to experience self-stigmatization when seeking help (Reynders et al., 2015).

Additionally, a higher proportion of men were more likely to have expressed disapproving attitudes toward suicide. Also, those with a suicidal past were less often married and more often unemployed. The researchers also noticed that people with a suicidal past were less likely to seek help in the future compared to people with no suicidal past. When comparing the Flemish and the Dutch men, they noticed that compared to Dutch men, Flemish men were less inclined to seek professional help for psychological problems, had less often received professional help, and had less positive attitudes toward seeking professional help. The results among women were similar to those of the men’s, with the Dutch being more likely to express an intention to seek professional and informal help for psychological problems (Reynders et al., 2015).

In conclusion, people with no suicidal past were more vulnerable psychologically when dealing with psychological problems in that they perceived and experienced more stigma when seeking help; consequently, they perhaps would be less inclined to seek psychological help in the future (Reynders et al., 2015).

The cost of suicide
During 2013, the rate of fatal injury was 61 per 100,000 population, with combined medical and work-loss costs exceeding $214 billion. Costs from fatal injuries were almost one third of the total costs of medical bills and work loss, $671 billion in 2013.

The magnitude of the economic burden associated with injury-associated deaths only underscores the imperative need for effective prevention. The number of injury-associated deaths in the United States during 2013 was obtained from the National Vital Statistics System. For each decedent, lifetime work-loss costs were calculated based on the sex and age of the decedent. The sex- and age-specific probability of surviving to a particular age was multiplied by the mean earnings of people of that sex and in that age group, using U.S. Census Bureau earnings data. An assumption made during calculation was that no one would live past the age of 102 years (Florence, Simon, Haegerich, Luo, & Zhou, 2015; Florence, Haegerich, Simon, Zhou, & Luo, 2015).
Alcohol has been identified as the fifth-leading risk for disability—countries. Alcohol is a significant risk factor leading to suicide. Suicidal ideation and prevention, including understanding the motivations behind suicidal behavior, are critical in the prevention of suicide. Suicide attempts and nonsuicidal self-injury cannot be differentiated unless a specific intent is revealed (Perlis et al., 2016). Nonsuicidal self-injury is defined as self-injurious behaviors with no intent to die. It differs from suicide attempts with respect to the person’s motivation. Nonsuicidal self-injurious behavior is also noted in younger patients. There is also a difference in the psychopathology and functional impairment associated with suicidal and nonsuicidal behaviors. Nonsuicidal self-injury most commonly consists of repetitive cutting, burning, rubbing, or picking. The main motivations in nonsuicidal self-injurious behaviors are to get attention, to relieve distress, to induce self-punishment, to “feel something,” or to escape a difficult situation (Perlis et al., 2016).

Suicidal events are denoted as the onset or worsening of suicidal ideation or a suicidal attempt. It is often denoted as an endpoint in studies when rescue procedures are initiated. Patients included in this category are those with ideation who then received emergency intervention and might have made an attempt had he or she not been recognized and treated. At the same time, the data suggest that some suicides occur impulsively. Easy access to a means of suicide may contribute to an increased suicide rate.

Deliberate self-harm is defined as any type of self-injurious behavior, including suicide attempts and nonsuicidal self-injury. The combination of these two categories into a single one reflects a recognition that they have a high comorbidity and a shared diathesis and that nonsuicidal self-injury is a strong predictor of eventual suicide attempt. It is important to distinguish between events classified as a suicide attempt motivated by a true desire to die and the desire to attract attention, to escape, or to communicate hostility. Of note is that suicide attempts and nonsuicidal self-injury cannot be differentiated unless a specific intent is revealed (Perlis et al., 2016).

Accurate global estimates of suicide rates are difficult to ascertain, as only 35% of the WHO member states have comprehensive vital registries with a minimum of five years of data.

### Etiology of suicide

The etiology of suicide is complex and heterogeneous with varying etiology in different geographic regions, sociopolitical settings, age groups, and sexes. Given that there is no effective algorithm to predict suicide in clinical practice, it is imperative to gain improved recognition and understanding of clinical, psychological, sociological, and biological factors to aid in the detection of high-risk individuals. The use of psychotherapeutic, neuromodulatory, or pharmacological techniques for the treatment of mental disorders can often contribute to the prevention of suicidal behavior. It has been established by mental health services that regular and timely follow-up of people who attempt suicide is critical in the prevention of suicidal behavior (Perlis, Grandner, Chakravorty, Bernert, Brown, & Thase, 2016).

The toll of suicide on global public health is staggering, with almost 1 million people dying from suicide worldwide each year. Cultural and moral beliefs regarding suicide and pessimistic views about the treatment and prevention of suicide are barriers to patient self-disclosure of suicidal thoughts as well as barriers to the routine inquiry about suicidal ideations by clinicians. Approximately 45% of people who die by suicide consult a primary care physician within one month of death, yet rarely is there any documentation by the physician of questions regarding suicidal ideations during that visit (Perlis et al., 2016).

The severity of suicidal behavior varies with progression from less to more severe forms of suicidal ideation and intentions with some overlap between attempted and completed suicide. Suicide attempts are potentially self-injurious behaviors associated with at least some intention to die. Some patients who have attempted suicide have reported that their main motivation was one other than to die, such as to get attention or to express hostility. Regardless, most of them have acknowledged that there was a possibility that their behavior could have resulted in death. In general, a suicide attempt is characterized by a greater functional impairment than nonsuicidal self-injury (Perlis et al., 2016).

Active suicidal ideations are defined as thoughts about taking action to end one’s life, including identifying a method, having a plan, or intending to perform a suicidal act. Having a specific plan or intention is associated with a much higher risk of the patient’s attempting suicide in the following 12 months. Passive suicidal ideations are thoughts about death or wanting to be dead with no plan or intention to act.

Approximately 30% of adolescents with suicide ideation will go on to attempt suicide within one year. People who attempt suicide who present to an emergency department have a 12-month risk of suicide of 1.6% and a risk of repeated suicide attempt of 16.3%, with a five-year risk of suicide of 3.9% (Perlis et al., 2016).

Nonsuicidal self-injury is defined as self-injurious behaviors with no intent to die. It differs from suicide attempts with respect to the person’s motivation. Nonsuicidal self-injurious behavior is also noted in younger patients. There is also a difference in the psychopathology and functional impairment associated with suicidal and nonsuicidal behaviors. Nonsuicidal self-injury most commonly consists of repetitive cutting, burning, rubbing, or picking. The main motivations in nonsuicidal self-injurious behaviors are to get attention, to relieve distress, to induce self-punishment, to “feel something,” or to escape a difficult situation (Perlis et al., 2016).

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### Risk factors for suicide

Suicide and mental disorders, such as depression and drug abuse, have been well established as having a link, particularly in high-income countries. Alcohol is a significant risk factor leading to suicide. Alcohol has been identified as the fifth-leading risk for disability-adjusted life year (DALY) on a worldwide scale. It accounts for 3.9% of all DALYs. It remains the leading risk factor for suicide among individuals between the ages of 14 and 49.

However, many suicides have been established as occurring during periods of increased stress—notably periods of crises, such as illness, chronic pain, financial stress, and bad relationship breakups.
Suicides have been reported to increase in populations likely to be discriminated against, such as the lesbian, gay, bisexual, and transvestite (LGBT) group; minorities; immigrants; and other vulnerable populations, such as prisoners.

Often times, patients who have attempted suicide are discharged with no community support or appropriate follow-up leaving them vulnerable to reattempt suicide. In low-resource settings, geographic inaccessibility to health care facilities and the absence of trained professionals have been identified as potential obstacles.

The national strategy for suicide prevention, published in conjunction with the surgeon general and the National Action Alliance for Suicide Prevention, was released in 2012. It delineated a few warning signs for suicide that loved ones could watch for in families and friends afflicted by suicide. The more of these warning signs a person displays, the greater the risk of suicide (U.S. Department of Health and Human Services, 2012).

Here are some of those warning signs:
- Talking about wanting to die.
- Looking for a way to kill oneself.
- Talking about feeling hopeless or having no purpose.
- Talking about feeling trapped or being in unbearable pain.
- Talking about being a burden to others.
- Increasing the use of alcohol or drugs.
- Acting anxious, agitated, or reckless.
- Sleeping too little or too much.
- Withdrawing or feeling isolated.
- Showing rage or talking about seeking revenge.
- Displaying extreme mood swings.

**Cultural and geographic factors**

It is important to recognize that cultural influences might supersede geographic location. The suicide rates of immigrants correlate more closely with the rates of their country of origin than with the rates of the country where they live. In general, indigenous populations have high rates of suicide, which are likely caused by a disruption of traditional cultural and family supports, increased prevalence of alcohol and substance use, and lower socioeconomic status, which are also independent risk factors for suicide in the general population (Perlis et al., 2016).

It is well known that increases in suicide rates among indigenous peoples, such as Canadian Inuits, correlate with social changes, such as forced settlement, assimilation, and disruption of traditional social structure. On the other hand, suicide is rare in homogeneous societies with common values, moral objections to suicide, and high social cohesion although the latter might also lead to under-reporting (Perlis et al., 2016).

Geographic origin is another source of variation in the incidence of suicide. More people die by suicide each year in Europe, North America, and South America than in Asia. In China, the suicide rates are 3 times higher in rural areas than in urban areas. Some have theorized that the easy access to highly lethal pesticides in rural areas, which also happens to be the most common method of suicide in China, is a major factor. Suicide in rural China is characterized by impulsive low-intent suicide attempts. Women in China have an increased lethality of suicide attempts compared to men’s. Women in China have higher rates of suicide death than in other parts of the world (Perlis et al., 2016).

**Economic factors**

WHO conducted a world mental health survey that included 108,000 participants with an average 12-month prevalence of 2% in high-income countries versus 2.1% in low-income countries, and the prevalence of suicide attempts of 0.3% versus 0.4% in high-income and low-income countries, respectively.

In high-income countries, suicide is most common among middle-aged and elderly men. The incidence of suicide ideation and suicidal behavior peaks in adolescence and young adulthood, with a lifetime prevalence of suicidal ideation of 12.1% to 33% and of suicidal behavior of 4.1% to 9.3%.

Economic crises resulting in unemployment and decreased personal income have been correlated with increases in suicide, particularly in men, although a direct causal relationship has not yet been established.

**Family and home factors**

Suicidal behaviors run in families, with the odd ratios of first- or second-degree relatives is experiencing similar behaviors being first degree relatives 1:7 and second-degree relatives 10:62 when adjusting for degree of relation, indicating that distal factors can increase suicide risk. Studies have shown that the risk of attempts is higher in relatives of people who have died by suicide, and that the risk of dying by suicide is higher in relatives of people with a history of suicide attempts. These effects are not likely to result from simple adaptive behaviors. Adoption studies have shown a correlation between biological but not adoptive relatives (Perlis et al., 2016).

Although psychopathological disorders are common in families, the transmission of suicidal behavior seems to be mediated through the transmission of impulsive aggression. When the heritability of other psychiatric conditions is taken into account, the specific heritability of suicidality is estimated at 17.4% for suicide attempts and 36% for suicidal ideation. Suicidal ideation seems to be transmitted along with mood disorders and shows a distinct pattern for transmission from that of suicidal behavior (Perlis et al., 2016).

Another well-characterized risk factor is exposure to early-life adversity, generally defined as parental neglect or childhood physical, sexual, or emotional abuse. Early-life adversity might also be transmitted through families, partly explaining the familial aggregation of suicidal behavior. Early-life adversity might induce long-term effects through epigenetic changes in gene pathways (Perlis et al., 2016).

Young people who die by suicide often have a high burden of adversity and a history of childhood abuse or neglect. The highest risk for suicidal behavior across the lifespan exists when a mood disorder associated with suicidal ideation co-occurs with other disorders that either increase distress, such as panic disorder or post-traumatic stress disorder, or decrease restraint, such as conduct and antisocial disorders and substance misuse.

**Mental factors**

Precipitants to suicidal behaviors are called proximal risk factors; they are temporally associated with suicidal behaviors. Besides past suicide attempts, psychopathology is the most important predictor of suicide and is strongly associated with other forms of suicidal behavior.

Retrospective interviews with informants, commonly referred to as psychological autopsies, have frequently been used to investigate the association between psychopathology and suicide and consistently have shown that roughly 90% of individuals who die by suicide had an identifiable psychiatric disorder before death (Perlis et al., 2016).

Some psychiatric illnesses are more strongly associated with suicidal behaviors than others are. Major depressive episodes, which are associated with either major depressive disorder or bipolar disorder, account for at least half of suicide deaths. Among patients with bipolar disorder, mixed-state episodes are most strongly associated with suicide attempts, with the associated risk increasing significantly as the time spent in the mixed-depressive episodes (Perlis et al., 2016). Mixed-state bipolar disorders and psychotic episodes concurrent with underlying depression can significantly increase the risk of imminent suicidal acts and require special attention.
Suicide risk is highest within the first year of illness and is associated with feelings of hopelessness. Major clinical predictors of suicide include the following:

- Depressive symptoms.
- Young age.
- Male sex.
- Education.
- Positive symptoms.
- Illness insight.

Almost all individuals who intentionally end their lives, regardless of whether they meet criteria for a psychiatric disorder, show evidence of hopelessness, depressed mood, and suicidal ideations. Individuals exhibiting suicidal behaviors have been shown to have altered levels of serotonin and serotonin signaling. Evidence suggests that individuals exhibiting suicidal behaviors have specific serotonin genotype and phenotype patterns as well as low serotonin levels associated with personality traits linked to suicidal behaviors, such as impulsive aggression (Perlis et al., 2016).

The other neurotransmitters implicated in depression and suicide are glutamate and gamma aminobutyric acid. Consequently, therapies targeting the glutamate pathway, such as ketamine (Ketalar, Vetalar) administration, have provided some promising initial results in the treatment of severe depression and suicidal ideations.

Patients recently discharged from inpatient psychiatric units are at very high risk for subsequent completed suicide. The goal of declining regional suicide rates has been shown to related to clear policies for the management of dual-diagnosis patients, the extend of care services, and multidisciplinary reviews of deaths by suicide.

Multiple other factors, such as alcohol and drug-related disorders, are common in people who die by suicide and might exacerbate underlying risks or interact with depression to increase suicidal behaviors.

Studies have shown that 9 out of 10 suicide victims suffered from at least one severe psychological problem; consequently, seeking and receiving psychological help is presumed to be a protective factor against suicide. Those who do not receive adequate help are at increased risk for psychological problems, thereby increasing their risk of suicide.

It has been well established in the literature by a number of researchers that persons with suicidal thoughts were less likely to seek psychological help compared to those who have psychological problems but no suicidal thoughts (Calear, Batterham, & Christensen, 2014; Carlton & Deane, 2000). Those who do not seek psychological help tend to have negative attitudes and are more likely to have a stigma against help-seeking behaviors (Reyners, Kerkhof, Molenbergh, & Van Audenhove, 2015; Calear, Batterham, & Christensen, 2014).

Reyners et al., (2015) showed that most people who seek and receive psychological help tend to experience shame and feel stigmatized after receiving the much needed help. Stigma is defined as behaviors that are often perceived by the general public to be disgraceful or shameful (Reyners et al., 2015).

The stigma perceived from having suicidal thoughts is distinguished from that perceived after receiving help for the management of suicidal ideations and suicidal behaviors. Perceived stigma purports the idea that people are convinced that they will be discriminated against if they ventured to seek help for psychological problems. These people then tend to apply the attitude of stigmatizing onto themselves, thereby resulting in low self-esteem and low self-efficacy. They, therefore, erroneously deduce that a way to prevent being stigmatized is to not disclose psychological problems and to not seek help (Reyners et al., 2015).

It has also been shown that people with no history of suicide tend to have more disapproving attitudes toward suicidal ideations and behaviors than people with a suicidal past have. The disapproving attitudes of others thus create and potentiate the feelings of shame for seeking psychological help among people with suicidal problems. The stigma and attitudes described above are not just individual perceptions; rather, they are social conceptions rooted within a cultural paradigm. These paradigms may vary across regions and countries, thereby explaining the regional and nationwide differences in the incidence of suicide and help-seeking behaviors (Reynders et al., 2015).

Social factors
Several social factors are associated with an increased risk of suicide: living alone, highly introverted people, traumatic events that occurred in adulthood, and interpersonal stressors. Extreme hopelessness, helplessness, and worthlessness, which may or may not result from depressive psychopathologic disorders, have also been shown to contribute to increased risk (Perlis et al., 2016).

There is some evidence among the elderly that suggests that plans implemented to decrease isolation and augment social support through group activities and telephone outreach programs might also reduce mortality secondary to suicide (Perlis et al., 2016).

Sexual orientation has been shown to affect suicide risk. An analysis of registry-based data suggests that individuals with a history of same-sex relationships have a 3 to 4 times greater risk of dying by suicide, with a disproportionately greater risk for men than for women. Belonging to a sexual minority is universally linked with increased rates of suicide attempts regardless of the individual’s sex.

Media reporting of suicide had also been shown to affect suicide rates, particularly within the first 30 days after the suicide, with increases in the rate of suicide proportional to the amount of publicity, when details of a method are provided, if the decedent was a celebrity, and whether the suicide was romanticized rather than reported in association with mental illness and the adverse consequences of the suicide on survivors. Of all age groups, adolescents and young adults are more susceptible to the effects of media publicity (Perlis et al., 2016).

Conversely, several factors are associated with a lower risk of suicide, including effective coping and problem-solving skills, responsibility for young children, a well-developed social support network, strong reasons for living, and religiosity, which is defined as the frequent attendance of religious services or personal religiosity. The benefits of religiosity might be related to religious views on suicide or to social support derived from the religious community.

Emotional factors
 Bereavement of loss of a close friend or relative or a loved one can cause a significant amount of emotional distress, which can, in turn, lead to an inability to cope with the loss. It has also been shown that in cases of violent deaths, people are more likely to experience grief complicated by suicidal ideations.

Physical factors
Physical illness, along with concurrent depression, has been shown to be a risk factor contributing to the etiology of suicide. Examples of physical disease whose concurrent occurrence with mental illness has been shown to increase suicidal risk include asthma and chronic obstructive pulmonary disorder, multiple sclerosis, osteoporosis, and coronary artery disease (Perlis et al., 2016).

Chronic diseases that can increase the risk of suicide independent of a concurrent mental health disorder include epilepsy, migraines, and inflammatory bowel disease. Specifically, in epilepsy, depressive symptoms may precede the onset of seizures or occur secondary to treatment.

Sleep disturbances and insomnia may increase the risk of suicide ideation or suicidal behaviors and can be independent of the presence
of depressive signs and symptoms, which might be mediated by increased impulsivity and reward-seeking behaviors.

It has been purported that sleep disturbances may represent one contributory factor to the etiology of suicide. Large-scale research in this area did not begin until the 2000s. Since the initiation of this research, sleep disturbance has been well established as a risk factor for suicidal ideations and suicidal behaviors. Insomnia, nightmares, and other sleep disorders have each been found to contribute to the risk for suicidal ideation and behavior. Being awake at night, by itself, confers increased risk of suicide. The hypothesis offered as an explanation for these findings stated that being awake when one is not biologically equipped to be so results in hypofrontality and diminished executive function. This, then, represents a common pathway to suicidal ideation and behaviors (Perlis et al., 2016).

Athletes and veterans who have sustained chronic traumatic brain injuries are very vulnerable to the possibility of suicidal behaviors and suicidal ideations. This effect is possibly mediated by a decrease in effective impulse control following repeated brain injuries (Perlis et al., 2016).

Methods used to commit suicide

The most common means of suicide in the United States is a firearm, followed by suffocation and poisoning. Up to 57% of suicides among males involve a firearm. Firearms are the most common method of suicide used by men of all ages, especially among men aged 65 years and older. Among women, suffocation is the most common method among 15- to 24-year-olds. Poisoning is the most common method among 24- to 64-year-olds.

Among women, a greater percentage of suicide deaths involve poisoning rather than firearms. However, almost 33% of suicide deaths, corresponding to 32% of all suicides among women, involve firearms.

Approximately 30% of all global suicides are committed with the use of pesticide self-poisoning. Most of these suicides occur in rural areas in low-income and middle-income countries. These are areas where agriculture, specifically rural agriculture, is usually practiced (World Health Organization, 2016).

Physician-assisted suicide and euthanasia

Aid in dying is a practice whereby a capable adult in the terminal stages of an illness elects to ask a physician to prescribe medications to hasten death. This has also been called physician-assisted suicide. In the United States, there have been discussions about whether the term used should be physician-assisted suicide or physician-assisted death or physician aid-in-dying (Emanuel et al., 2016).

Currently in the United States, five states permit physicians to aid patients in dying. Of these, Oregon was the first to pass the Death with Dignity Act, in 1994, which was eventually implemented in 1997. Subsequently, Washington passed similar legislation in 2008. Montana followed suit by allowing physician-aided dying in 2009 through a Montana State Supreme Court ruling. Vermont passed legislature in 2013. In late 2015, California became the fifth state to pass legislation with the End of Life Option Act (Emanuel, Onwuteaka-Philipsen, Urwin, & Cohen, 2016). California’s legislative act is mostly modeled after Oregon’s Death with Dignity Act.

It is the states’ responsibilities to ensure that detailed checks and balances are implemented to ensure that the hastening of death is performed only for those who are fully informed and are making the choice themselves, without negative influence (Emanuel et al., 2016).

Categorizing deaths related to self-injury

Substance use disorders are universally considered a risk factor for suicide. Under the current medicolegal system, most drug intoxication deaths are reported as accidents because the system requires a compelling amount of evidence of intent to confirm suicide. “Accident” is an official manner of death classification used by medical examiners and coroners. The Centers for Disease Control and Prevention prefers the term unintentional from a public health perspective (Rookett et al., 2016; Rookett et al., 2015).

A history of repeated and deliberate drug use and associated life-threatening overdoses that clearly indicate intentional acts fundamentally increase the probability that the person may end his or her life through this at-risk behavior. Despite this well-established pattern, this is not enough to eliminate the use of “accident” by medical examiners and coroners on the death certificate. Rather, medical examiners and coroners rely on definite evidence on the day the individual dies that clearly establishes suicide as the cause of death (Rookett et al., 2016; Rookett et al., 2015).

From the public health perspective, when addressing the goal to reduce injuries and prevent fatal outcomes, one must realize that factors that lead to fatal events and suicides often have many precursory risk factors that occur long before the fatal event or suicide. These include emotional distress, disruptive behaviors, familial disruptions, and social instability. This is directly contradictory to the medicolegal perspective, which separates the individual intent of
the fatal suicidal act from the inferred and unintended nature of the lethal drug overdose. Suicidal motivations are difficult to establish because of evidentiary deficits from inadequately staffed and poorly funded forensic branches in emergency health care systems and death investigation departments. The term accident, therefore, serves the purpose as a default category when definite proximal evidence remains inconclusive.

**Death from drug self-intoxication category**

Recently, a consensus panel met and determined that a new category should be included on the certificate of death called “death from drug self-intoxication.” This term includes the three major manners of death: 1) suicide, 2) accident, and 3) undetermined intent. The consensus panel consisted of participants from different fields, including psychiatrists, medical examiners, epidemiologists, emergency physicians, and toxicologists (Rockett et al., 2016; Rockett et al., 2015).

**Self-injury category of mortality: Report of a study**

Rockett et al. created a self-injury mortality category that encompasses suicide by any method as well as death from drug self-intoxication. This category includes the categories used by coroners and medical examiners, such as “accidental” and “undetermined.” They then compared the differences in patterns of self-injury mortality in the United States to the top-three ranked causes of death. They identified the top-three causes of death—diabetes, influenza and pneumonia, kidney disease—and deaths from drug intoxications that were previously denoted as accidental or undetermined. The deaths from drug intoxications were further classified into drug groups: nonopioid analgesics, narcotics, sedative hypnotics, autonomic drugs, and other drugs that affect the nervous system (Rockett et al., 2016; Rockett et al., 2015).

As it stands at this writing, suicide alone is currently ranked as the 10th-leading cause of death in the United States. But the estimated self-injury rate has been rising much faster than the suicide rate since 2000. Self-injury was estimated as the sum of the suicides by any method and accidents or undetermined death by drug toxicity. This was based on the assumption that 80% of accidental drug intoxications and 90% of undetermined drug intoxication deaths were in persons 15 years or older. The patients in this study were selected between 1999 and 2014. The age of 55 was used as the cutoff for separating older and younger patients (Rockett et al., 2016; Rockett et al., 2015).

There were 40,289 self-injury deaths in 1999 and 76,227 deaths in 2014. The raw data rate for self-injury mortality increased from 14.4 per 100,000 persons in 1999 to 23.9 per 100,000 persons in 2014, which corresponds to a 65% increase. This increase in mortality rate exceeded that seen with kidney disease within the same observation period. It was also greater than the influenza and pneumonia rates by 2006, and it was equal to the diabetes mortality rate in 2014, corresponding to 23.9 and 24 deaths per 100,000, respectively. The mortality rate for influenza and pneumonia declined from 23.2 per 100,000 in 2000 to 17.3 per 100,000 in 2014. The kidney disease mortality rate increased from 12.7 per 100,000 in 2000 to 15.1 per 100,000 by 2014. In 2014, the self-injury mortality rate was 1.8 times higher than the suicide rate compared to 1999 when it was 1.4 times higher. Males showed a higher self-injury mortality rate than females did within the observation period. Interestingly, however, the female rate over the same period increased by 116%; the male rate increased by 51%. The relative risk between males and females was 3.7% in 1999, but it decreased to 2.6% by 2014 (Rockett et al., 2016; Rockett et al., 2015).

Between 1999 and 2001, 77.1% of self-injury deaths occurred among persons 55 years or younger compared to 11.1% of diabetes deaths, 6% of influenza and pneumonia deaths, and 7.8% of kidney disease deaths. Based on previously published studies, Rockett et al. (2016) inferred that self-injury mortality affects a greater proportion of Caucasian individuals relative to African American and Hispanic individuals. They noted that with the exception of persons older than 75 years, the self-injury mortality rate was higher in all specified age groups between the years 2012 and 2014 than between the years 1999 to 2001. Self-injury mortality accounted for approximately 32.2 and 36.6 years of life lost by male and female participants, respectively. The numbers reported for diabetes were 15.8 and 17.3 years, 15 and 16.6 years for influenza and pneumonia, and 14.5 and 16.2 years for kidney disease.

The steep increase of official suicide and drug intoxication death rates between 2000 and 2014 revealed a growing crisis. Most researchers, clinicians, medical examiners, and coroners agree that repeated opioid and other drug self-intoxication is a form of self-directed injury. However, deaths arising from such self-destructive behaviors continue to be labeled as “accidental,” “unintentional,” or “indeterminate” in spite of an individual’s clinical history of deliberate, repeated substance misuse, which fundamentally increases the probability of demise. Restricting the scope of determination of the person’s intentionality to the day of death as the sole way of establishing a pattern of intentional self-harm precludes the types of investigations needed to better understand the biological, social, and psychological factors that influence and essentially contribute to these premature fatalities (Rockett et al., 2016; Rockett et al., 2015).

The purpose of the study conducted by Rockett et al. in 2016 highlights the critical need to resolve such inconsistencies in classification to study the factors contributing to fatal self-injuries more thoroughly. Subsequent studies performed on self-injury mortality will need to examine the vast plethora of individual and community factors that contribute to the etiology of self-injury mortality, including social, economic, political, environmental, and health-related factors. A full understanding of self-injury mortality in the context of the various variables—including variables such as race, ethnicity, military/veteran status, state, and region—that influence its incidence will also be valuable.

Simply comparing the number of fatal self-injurious acts and the number of overdose deaths to the top-three causes of death is not the most effective approach. This oversimplifies the contributory causes when prioritizing appropriate interventions. Erroneously weighing all the deaths equally does not take into account the harm of self-injury mortalities on people who are in the prime of their lives. For example, during the two periods 1999 to 2001 and 2012 to 2014, 70% of self-injury deaths occurred in patients younger than age 55. Less than 12% of this same population died from influenza and pneumonia, diabetes, and kidney disease. This example clearly highlights the loss of productive years associated with self-injury mortality.

When comparing the deaths related to suicide alone in women between 1999 and 2014, the rising trend in the incidence may be missed. But once the data from self-injury mortality and death by drug toxicity are combined with the suicide rates, the rate is nearly double the suicide rate alone. This underscores the rise of self-injury trends among women. Between 1999 and 2014, there was a 30% reduction of the gap between males and females with respect to the incidence of self-injury mortality. This trend is very disturbing and may continue to rise unless effective preventative methods are employed. As of 2014, the self-injury rate for males was still 2.6 times higher than the female rates.

Mortality from continuous self-harm can serve as an etiology for certain diseases, for example, lung cancer caused by tobacco smoking and cirrhosis caused by alcohol consumption. Suicide, on the other hand, is caused by a plethora of factors, including schizophrenia, depressive disorders, bipolar disorder, and anxiety disorders as well as co morbid systemic diseases, acute alcohol and drug intoxication, interpersonal stresses, and adverse life events.

The strict criteria that necessitate clearly defined intentions with actions to kill oneself basically guarantee that suicide rates will be underestimated in most countries.
Suicide underestimation is apparent by the exclusion of more ambiguous or less active methods, such as poisoning and drowning, from most study data. Studies do not always include opioid intoxication although it is a lethal and an increasingly accessible method for most populations at risk, including adolescents (Rockett et al., 2016; Rockett et al., 2015).

Additionally, well-documented morbidities and multiple comorbidities in the medical record argue against the performance of autopsies and toxicological testing, especially in cases involving middle-aged adults and the elderly given that these groups are more likely to die from disease rather than injury, especially self-injury. Consequently, some drug-intoxication suicides are erroneously classified as death from natural causes or diseases. Without an autopsy or toxicological testing, these suicides may be misclassified as death from unknown causes or undetermined cause of death (Rockett et al., 2016; Rockett et al., 2015).

Had the incidence of registered suicides and estimated deaths by drug intoxication been combined, self-injury would have ranked as the eighth-leading cause of death in the United States in 2013. This would have ranked ahead of influenza and pneumonia and kidney disease and behind diabetes (Rockett et al., 2016; Rockett et al., 2015).

Rockett et al. (2016) finally compared mortality trends with patterns of self-injury and the previously mentioned three proximally ranked diseases—diabetes, kidney disease, and influenza and pneumonia—between 1999 and 2001 and between 2012 and 2014. Data from this study were used to provide a context for the rankings and to give insight into injury etiology, surveillance, prevention, treatment, and eventual rehabilitation.

Without a fundamental shift in public health priorities and the appropriate assignment of health resources, we can expect a continuing rise in the rate of self-injury mortality. And we can expect its weighty psychosocial, physical, and economic toll on individuals, families, and communities to continue to run rampantly (Rockett et al., 2016; Rockett et al., 2015).

Also, this increase in the incidence of self-injury mortality may continue in spite of national economic improvements because currently there is a scarcity of prevention programs and a lack of treatment services for people with mental and substance use disorders in the United States (Rockett et al., 2016; Rockett et al., 2015).

Increasing substance-abuse treatment needs are associated with excessive use of health care resources and high costs of hospital emergency care. Regardless of the motivation behind emergency room visits—whether solely to obtain opioids to alleviate cravings or truly to receive treatment for illnesses arising from intravenous use of drugs, suicide attempts, or deliberate self-harm—the availability and provision of substance-abuse treatment needs can potentially put a dent in the rising rate of self-injury mortality (Rockett et al., 2016; Rockett et al., 2015).

Currently, states are addressing health care initiatives legislated in the Affordable Care Act and the Mental Health Parity and Addiction Equity Act unequally with vulnerable minorities being adversely affected (Rockett et al., 2016; Rockett et al., 2015).

The limitations associated with the 2016 Rockett et al. study was the differences in death certificates originating from variable providers with different levels of training and practice experience. Also, the fact that correlation between the state registrars and the National Center for Health Statistics was not examined is a limitation. Their choice of comparison diseases may also be a limiting factor given that some major killer diseases, such as heart disease and cancer, were not included in their calculations. Additionally, the concept of self-injury mortality has not been validated by other studies, and its measurement is not yet precise or well established. Finally, in the Rockett et al. study from 2016, the self-injury mortality calculations excluded self-injury deaths from motor vehicle trauma and certain forms of poisoning (Rockett et al., 2016; Rockett et al., 2015).

At-risk populations

Postnatal women

Of all mental health problems, depression accounts for the greatest burden of disease and is estimated to become the second-leading cause of global disability by 2020. Perinatal depression is defined as depression experienced during pregnancy or the postnatal period up to one year after delivery. It has been well established that perinatal depression is a distinct class of depression with specific and special recommendations for the identification and clinical management of this medical condition (Littlewood et al., 2016).

Some estimates have suggested that 7.4% to 20% of women experience depression at some stage during pregnancy, with a rate of postpartum depression estimated to be as high as 22% of all women who deliver a child.

Perinatal depression has been linked with various adverse outcomes. Evidence suggests an association between prenatal depression and adverse neonatal outcomes, including poor self-reported health, substance abuse and alcohol abuse, and inadequate usage of antenatal care services. It is well established that postnatal depression can affect the mother and her partner, the mother–baby interactions, and the whole family unit. Postnatal depression can also cause longer term emotional and cognitive implications in the development of the baby, especially when the depression occurs in the baby’s first year of life.

Although perinatal depression is well recognized as a mental health condition with potentially devastating effects, it often goes undetected. Health care professionals detect fewer than half of all cases in standard clinical practice (Littlewood et al., 2016).

Depression does not always exist in isolation. Most studies on the epidemiology of depression have shown that depression commonly coexists with other common mental health disorders, such as general anxiety and even suicidal ideation. Any tools designed to screen for depression must recognize and assess for coexisting psychological symptoms, including suicidal ideations and suicidal behaviors (Littlewood et al. 2016).

Veterans

The Veterans Administration Health Service Department has implemented several programs to aid veterans at risk for suicide or who have attempted suicide previously. The Veterans Crisis Line is a confidential resource that connects veterans in crisis—as well as their family members and friends—with qualified and trained responders in the U.S. Department of Veterans Affairs.

Veterans and loved ones can connect either via phone or via online chat through http://www.veterancrisisline.net. Alternatively, veterans can send a text message through their cellphones. Once the crisis line is contacted, veterans and family members can receive confidential support 24 hours a day and 7 days a week. It is important to note that veterans can seek help via this confidential resource even if they are not registered with the VA system. The responders on the crisis line are trained to assist veterans dealing with mental health problems and those struggling with the transition to civilian life or relationships. They are also trained to aid those coping with chronic pain or homelessness, among many other conditions. The VA system also attempts to hire veterans as responders.

The crisis line was launched in 2007. The VA has partnered with community organizations and local health care providers to help increase awareness about the crisis line program. Specifically, the VA launched a spread-the-word campaign that uses online ads and
banners to raise awareness about the crisis line. Community members
or organizations that want to raise awareness about the crisis line are
given specific best practices guidelines on how to raise awareness
without knowingly reinforcing beliefs or stereotypes that could hinder
veterans or their family members from reaching out for help (VA
Suicide Prevention Program, 2016).

Patients who receive health services from Veterans Health
Administration services are more likely to have characteristics related
to a higher risk of suicide, including older age, male gender, and
substantial medical and psychiatric morbidities (Blow, Bohnert, Ilgen,
Ogmacop, McCarthy, Valenstein, & Knox, 2012).

Kaplan, Huguet, McFarland, and Newsome (2007) noted some
inconsistent information regarding the relative risk of suicide in
veterans. They found that male veterans who responded to the U.S.
National Health Interview Survey were twice as likely to report a
suicide attempt as nonveteran males were.

McCarthy et al. (2009) found that compared to the general population,
the suicide rates of veterans who used veteran health services from
2000 to 2001 were 1.66 times higher in men and 1.87 times higher in
women. However, studies examining the risk factors contributing to
suicide within the veteran population have failed to find that the risk
of suicide is substantially higher among veterans than that found in the
general population, except within specific high-risk subgroups, such as
veterans with a mental disorder.

However, changes in suicidal behaviors observed in the general
population may not apply to the veteran population in general and
to high-risk individuals receiving veteran services in particular. In
general, veterans are considered more accessible for suicide prevention
efforts. Monitoring suicide rates among veterans is now increasingly
important because of concerns regarding the impact of the conflicts in
Iraq and Afghanistan (Blow et al., 2012).

It is well document that veterans have elevated rates of psychiatric and
substance-use disorders, which has prompted Congress to mandate the
implementation of a comprehensive Veteran’s Health Administration
suicide prevention program, which began in 2007. More research
needs to be performed to examine whether suicide rates among veteran
health services patients have changed since the start of the wars in Iraq
and Afghanistan. There is also a need to assess the general stability
of rates among patients receiving health care in the VA health system,
which is the largest integrated health system in the United States
(Blow et al., 2012).

Blow et al. (2012) reported that 8,855,655 individuals received
inpatient or outpatient veteran health services between 2000 and 2007.
They then calculated annual rates of suicide by dividing the number
of suicides observed in each fiscal year by the person-years accrued
during that period multiplied by 100,000. The annual veteran health
services rates of suicide mortality ranged from 34.3 to 39.8 suicides
per 100,000 person-years. Among male veteran health services users,
the annual rates of suicide ranged from 36.4 to 43.1 suicides per
100,000 person-years, compared to a range from 9.8 to 13.7 among
female veteran services users (Blow et al., 2012).

Even though suicide rates decreased over time among male veterans
in the middle-age group, the rates remained consistently higher
than those for either older or younger veterans. These results are the
complete opposite of the typical pattern observed in the United States,
which has the highest rates of suicide among older males. Suicide risk
factors are significantly elevated among individuals who have served
in the wars in Iraq or Afghanistan (Blow et al., 2012).

Suicide is influenced by multiple factors, including biological factors,
such as gender; socioeconomic factors, such as employment status;
and other factors, such as access to firearms. These all confer increased
risk of suicidal behaviors and suicide. Incidentally, the veteran
population tends to be affected by these factors or has access to these
risk factors, thereby increasing their risk.

Blow et al. (2012) noted that middle-aged men were at the highest risk
for suicide. Although it is unknown why this group had an elevated
risk, there are several potential explanations, including the fact that
these individuals represent Vietnam-era veterans who may be a cohort
at higher risk for suicide caused by ongoing social, economic, or
psychiatric difficulties.

Despite these limitations, to my knowledge, this is the first
comprehensive study of suicide mortality among patients receiving
health care in a large national health care system. These findings
indicate that there has been no increase in suicide rates among the
Veteran’s Health Administration population of patients since the start
of the conflicts in Iraq and Afghanistan; in fact, suicide rates among
the Veterans Health Administration patient population have decreased
since fiscal year 2000. However, Veterans Health Administration users
are at increased risk for suicide compared with individuals the same
age and gender in the general population. Comprehensive approaches
to suicide prevention in the Veterans Health Administration should
focus not only on recent returnees but also on middle-aged and older
veterans (Blow et al., 2012).

Nearly 100 suicides occur each day and approximately 36,000 people
die by suicide each year. Among veterans and current military, suicide
is a national public health concern. Recent estimates suggest current
or former military represent 20% of all known suicides in the United
States. It has been estimated that the rate of suicides among veterans
using Veterans Health Administration services is estimated to be
higher than that of the general population. The gravity and enormity
of the problem has led to the launching of several major public health
initiatives and a growth in research funding for suicide prevention
(O’Neil et al., 2012).

Adolescents

The National Healthy People 2020 objectives include the goal of
reducing the suicide rate from 11.3 per 100,000 people in 2007 to 10.2
per 100,000 by 2020. Another objective is to reduce the rate of suicide
tries by adolescents in grades 9 through 12 from 1.9 per 100,000 in
2009 to 1.7 per 100,000 by 2020 (Katz et al., 2013).

Suicide remains one of the leading causes of death among adolescents
and remains of great concern as a public health issue. Understanding
the factors contributing to suicide in each community or population
remains challenging. There has been little progress on the
current pharmacologic or psychosocial interventions (Katz et al.,
2013).

In the United States, it has been estimated that up to 16% of all high
school students have considered suicide over a 12-month period. Of
those students, 13% had a plan for their suicide attempt. Currently,
there is a best practices registry. Although most interventions listed
in the registry seem practical, very few of them are actually evidence
based (Katz et al., 2013).
Prevention programs

The goals of suicide prevention programs are to reduce the prevalence of suicidal ideations, suicidal attempts, and deaths secondary to suicide. Most prevention programs in schools around the country are put in place to reduce the risk factors in adolescents, identify those at risk, and provide treatment to patients as appropriate. Multiple prevention programs include suicide awareness courses, screening for suicidal ideations, and gatekeeper and peer leadership training (Katz et al., 2013).

In general, universal programs tend to focus on techniques implemented on a school wide basis, whereas selected programs target students specifically identified as being at risk. Given that most adolescents spend most of their day at school, school-based programs are considered one of the most effective ways of reaching this population (Katz et al., 2013).

There are many school-based suicide prevention programs in existence. But there have been no well-established evidence-based best practice guidelines; consequently, school authorities have been randomly picking programs to implement in their individual schools. Because of an overwhelming number of programs, policymakers need an evidence-based review to inform their practices and decision making.

Katz et al. (2013) performed a study to review all the available data and published a review of all the interventions currently used ranking them based on their effectiveness into several grades ranging from a grade of A to D, with grade A the best. They identified five broad categories of suicide prevention programs:
1. Awareness or education-type programs.
2. Screening programs.
3. Gatekeeper programs.
4. Peer leadership programs.
5. Skill training programs.

Awareness or education programs

Awareness or education-type programs provide curricula that make the students more familiar with and able to recognize the signs and symptoms of suicide in themselves or in others. These programs are designed to facilitate self-disclosure, particularly to the students’ peers. In general, suicide awareness and education programs are usually added to the regular school curriculum. The results from these types of programs have been mixed. Some schools have noted a change in attitudes toward suicide, increased knowledge, and behavioral changes, whereas other schools have noted some detrimental effects.

Katz et al. (2013) reviewed multiple programs used throughout schools in the United States and published data on the effectiveness of the identified programs, thereby providing school officials with a database of programs and their associated effectiveness based on the evidence. Most programs currently used employ a hybrid model that includes both gatekeeper and screening components. It is important to note that using this hybrid method increases the possibility of identifying at-risk students. The programs are created with the goal of destigmatizing the use of mental health services and stigmatizing suicide. But changes in knowledge and attitudes toward mental health and suicide do not necessarily correlate with changes in behavior. Another limitation of the program is that students contemplating suicidal usually do not have a large peer network, which some of these programs rely on to succeed. The scope of the programs is, therefore, limited in situations where the student does not have a large peer network (Katz et al., 2013).

SOS Signs of Suicide™ program

SOS Signs of Suicide™ is a universal program that promotes the idea that suicide is related to mental illness rather than a normal reaction to emotional stress or distress. This program includes suicide awareness, suicide screening, and educational interventions. It uses video and guided classroom discussions among students to learn how to acknowledge the signs of suicide displayed by their peers and to take those seriously. Then they learn how to let their peers know that they care about them and how to report these findings to an adult (Katz et al., 2013).

The second part of the SOS Signs of Suicide™ program is the screening component, which utilizes the Brief Screen for Adolescent Depression (BSAD) tool. Students identified using this tool are encouraged to seek further help.

The SOS Signs of Suicide™ program received a grade of B based on the high quality of the trials conducted. However, it failed to show statistically significant results in terms of decreasing the incidence of suicidal ideation among the students, therefore earning a grade of D based on this outcome.

Two randomized controlled trials were performed to evaluate the effectiveness of this program in reducing suicidal attempts; increasing suicide knowledge; and improving attitudes toward suicide, depression, and help-seeking behaviors. In one study, 2,100 students from five high schools were randomized into two groups that received the SOS Signs of Suicide™ program in either the first or the second semester. The study showed significant short-term effects of the SOS Signs of Suicide™ program with significant reductions in the number of self-reported suicide attempts as well as significant increases in the knowledge about suicide at three months. However, no significant differences were noted between the treatment group and the control groups when evaluating for suicidal ideation or help-seeking behaviors (Katz et al., 2013).

The second randomized control trial included 4,133 students from nine different high schools. One year after initiation of the trial, similar results to the previous trial were recorded. A bias identified in the trial was that the study was designed with a self-reporting component, thereby raising the question of potential exaggeration of the effect of this study. In this second trial, the students were noted to have improved attitudes toward suicide and depression.

Based on the clinical trials, the SOS Signs of Suicide™ program received a grade of B when addressing attitudes and knowledge outcomes and a grade of D because of its inability to show statistically significant improvement when measuring the outcome of help-seeking behaviors. The investigators felt that an improvement in understanding and attitudes about suicide and depression directly led to a decrease in self-reporting suicide attempts. This hypothesis has not yet been evaluated (Katz et al., 2013).

Screening programs

Screening is a case-finding technique of suicide prevention that involves screening either all students or students at risk for mental illness or suicidal ideation. Screening tools focus on identifying risk factors, such as depression, drug abuse, alcohol abuse, and prior suicidal ideations or attempts. Those identified as being at increased risk are referred to a specialist for further treatment. When designing screening studies for patients with suicidal ideations, it is important to evaluate and identify the availability of referral sites before initiating screening. The screening technique always carries a risk of false positives and false negatives.
suicide risk factors in fellow classmates or students. The program is the Question, Persuade, and Refer (QPR) gatekeeper program is a Question, Persuade, and Refer tool. The success of this program depends on the identification of students at risk. Additionally, adults are taught how to recognize the warning signs, thereby increasing the recognition and suicidal youth are under identified; therefore, school staff is trained to recognize natural helpers. These programs teach them skills to identify and connect with trusted adults. Peer leadership has been shown to establish positive coping norms within the school environment. Sources of Strength was one of the first peer leadership training programs established (Katz et al., 2013).

**Evidence-based practice!** The Question, Persuade, and Refer (QPR) tool training demonstrated positive effects on suicide knowledge, skills for identifying students at risk, and attitudes toward suicide. Overall, there was an increase in perceived preparedness, positive effects on self-assessed knowledge, and improved efficacy outcomes.

A separate study performed by Tompkins, Witt, and Abraibesh (2009) containing a group of 78 school staff and 24 controls showed an increase in the knowledge of suicidal ideations and suicide prevention. As a result of a high-quality randomized control trial, the QPR tool received a grade of B for the knowledge and attitudes outcome. However, when evaluating such outcomes as asking students about suicide, increased number or referrals, and forming better connections with students, the tool received a grade of D (Katz et al., 2013).

**Peer leadership training**
It has been clearly shown that young people are more likely to talk to peers than adults about suicidal ideations. Peer leadership puts students in a position to help suicidal peers by training them to respond appropriately and referring them to a trusted adult. Peer leadership has been shown to establish positive coping norms within the school environment. Sources of Strength was one of the first peer leadership training programs established (Katz et al., 2013).

**Sources of Strength program**
Sources of Strength is a suicide-prevention program designed to increase eight protective factors in the student population and decrease risk factors associated with suicide, including social isolation and ineffective coping skills. It also creates positive coping norms and builds protective influences within the school. This model fosters positive peer support within the school environment. Peer leaders are usually selected by school staff and are trained to encourage their schoolmates and friends to identify and connect with trusted adults and mentors and to use all available coping resources, both formal and informal. A fundamental goal of the program is to increase the likelihood that students with suicidal ideations and suicide-associated risk factors will receive help with mental health services and, consequently, reduce the incidence of suicidal ideations and suicide attempts. This program is similar to the skills training program, but in this case, the peer leaders deliver the interventions (Katz et al., 2013).

A randomized control trial was used to evaluate the Sources of Strength program. Eighteen schools were randomized to receive training immediately after initiation of the program or after being wait listed. Surveys were administered to 453 peer leaders and 2,675 students at baseline and after four months. The results showed that trained peer leaders had an increase in adaptive standards regarding suicide and a willingness to engage an adult in cases of suicidal friends despite requests from their friends for secrecy (Katz et al., 2013).

**Evidence-based practice!** Some clinicians have raised concerns about screening techniques causing iatrogenic detrimental effects, such as seeding the idea of suicide into the minds of the children being screened. A large randomized control trial was performed that demonstrated that screening did not create an increase in emotional distress or suicidal ideation. On the contrary, suicidal youth who had not been asked about suicidal ideation reported that they were more distressed.

**TeenScreen tool**
An example of a primary screening program is the TeenScreen program. Unlike the SOS Signs of Suicide program, it incorporates a screening component and other techniques (Katz et al., 2013). TeenScreen is a universal tool based on self-reporting and is used to assess risk factors for suicide. The tool has been used in schools, primary care settings, and other clinical settings.

A nonrandomized cohort study showed that the TeenScreen tool was valid and reliable in identifying students at risk. All students who responded as having key risk factors for suicide on the screen were further evaluated. Overall, the sensitivity of the tool in a student population or school setting was reported as being between 75% and 100%. When students identified using the TeenScreen method were compared to students using other screening tools, investigators noted that some students identified by the TeenScreen were not identified by other screening tools. The consequence of this increased sensitivity is that some students who are not actively at risk may be identified. Once the students are identified, they are then referred to a specialist for further workup and follow-up (Katz et al., 2013).

Recently published data on the TeenScreen program showed that students who were screened were more likely to get referrals to mental health services, especially to school-based services, as well as community-based services, with a larger fraction of the students accessing school-based services. The TeenScreen program was given a grade of B on its ability to increase the knowledge of students at risk for suicide. One caveat when reviewing these data is that data regarding this tool were obtained from a nonrandomized trial; therefore, school officials should interpret the data based on the fact a randomized control trial was not performed (Katz et al., 2013).

**Gatekeeper training**
Gatekeeper training programs focus on identifying students considered natural helpers. These programs teach them skills to identify and recognize the signs and symptoms of suicide. The assumption is that suicidal youth are under identified; therefore, school staff is trained to recognize the warning signs, thereby increasing the recognition and identification of students at risk. Additionally, adults are taught how to respond appropriately to students identified as being at risk for suicidal ideation and suicide attempts. The success of this program depends largely on the subsequent referral of at-risk students to specialists for further evaluation.

**Question, Persuade, and Refer tool**
The Question, Persuade, and Refer (QPR) gatekeeper program is a universal program that trains students and school staff to recognize suicide risk factors in fellow classmates or students. The program is based on four simple steps (Katz et al., 2013):

1. **Step 1:** Recognize the suicide warning signs.
2. **Step 2:** Train all school staff in QPR techniques.
3. **Step 3:** Train school counselors to appropriately assess students identified as at risk.
4. **Step 4:** Organize the access to specialists for professional assessment and treatment of the students identified.

The outcomes measured by this program include increasing school staff awareness of suicide and their ability to intervene based on early recognition of warning signs. A randomized control trial was performed with 249 school personnel. The results demonstrated that QPR training produced positive effects on suicide knowledge, skills for identifying students at risk, and attitudes toward suicide. Overall, there was a measurable increase in the general knowledge, increased perceived preparedness, positive effects on self-assessed knowledge, and improved efficacy outcomes. Unfortunately, although gatekeeper programs were shown to be effective in identifying students at risk, only the gatekeepers who typically approached students to seek help felt comfortable enough to do so. Consequently, the program did not show an improvement in the subsequent use of mental health services (Katz et al., 2013).
Trained peer leaders were 4 times more likely to involve an adult in cases of suicidal friends compared to the control group. This is likely because of their perception of increased adult support and acceptability of help-seeking behaviors. This program received a grade of B on both attitudes and knowledge.

To date, there have been few trials evaluating suicidal ideations or suicidal attempts as outcomes. Further evaluation on the randomized control trial is needed. Overall, the program provided an opportunity for student peers to positively influence schoolmates at risk for suicide and increased the perception among students that adults can be helpful (Katz et al., 2013).

Skills training
Skills training programs use a risk-reduction approach for suicide prevention. They are designed to increase protective factors. In general, the programs teach life skills—such as coping, problem solving, and decision making—along with cognitive skills. The goal of these programs is to indirectly prevent the development of suicide by targeting risk factors and giving youth important skills to aid in reducing suicidal ideation (Katz et al., 2013).

American Indian life skills development
This is a culturally adapted prevention program designed to reduce suicide risk factors and improve protective factors. Students are taught skills that build their self-esteem, help them identify emotions and stressors in their lives, and increase communication and problem-solving skills while eliminating self-destructive behaviors. The program also helps participants create personal and community goals. The lessons are interactive and use personalized experiences related and relevant to an American Indian’s adolescent life. The program has been adapted and used by 20 different Native American tribes. Expected outcomes from this program are an increased level of suicide intervention skills and a decrease in feelings of hopelessness.

A study was performed in the Zuni Pueblo reservation. Fifty-nine students were assigned to the no intervention group; 69 students were included in the intervention group. Students in the intervention group performed significantly better on measures of hopelessness and on the risk of suicide, including suicidal ideation. However, there were no differences noted between the control and the intervention groups in the levels of depression. The intervention group showed better problem-solving skills and greater suicide intervention skills compared to the control group.

Because this program has not been evaluated by a randomized control trial, it has received a grade of C when addressing outcomes of general skills improvement and the incidence of suicidal ideation and suicide attempts (Katz et al., 2013).

Care, Assess, Respond, Empower program
Care, Assess, Respond, Empower (CARE) is a selected program that targets high-risk youth through an in-depth computer-assisted suicide assessment interview and a follow-up motivational counseling session. The purpose of the counseling component is to provide students with a supportive and safe environment to foster sharing and encourage positive coping techniques and help-seeking behaviors. The CARE program also includes a follow-up session that serves as a booster as well as providing an opportunity for reassessment of suicide risk and protective factors. The goal of the CARE program, simply put, is to decrease suicidal ideations and suicide attempts and to reduce risk factors while increasing personal and social capital. In some settings, the CARE program has been culturally adapted to the target population (Katz et al., 2013).

A component of this program—Coping and Support Training, or CAST—seeks to increase life skills and social support of students in a small-group format. Students at risk are identified through the CARE component of the program and directed to participate in CAST. The goal of the CAST program is to improve the ability to manage mood changes and improve school performance while decreasing drug use.

The group sessions teach at-risk students valuable life skills, including goal setting, decision making, self-esteem, academic performance, and control of drug and alcohol use. Each session includes a practice assignment, also called a lifework assignment, in which the students are asked to practice their newly learned skills in everyday life (Katz et al., 2013).

Four studies have been used to evaluate the CARE program; three of those also evaluated the CAST component. Participants in the studies were randomized to three groups: 1) CARE program only, 2) CARE plus CAST, 3) treatment as usual. All the trials noted that CARE and CARE plus CAST were more effective in decreasing depressive symptoms and improving self-esteem. All groups demonstrated a decrease in anger-control problems, family distress, and suicide-risk behaviors. Only participants in the CARE plus CAST group demonstrated an increase in such skills as problem solving and self-control. This combination group was also effective in reducing feelings associated with depression, including hopelessness. An increase in perceived family support was also reported among those who used the combination of CARE and CAST. Specifically among females, the combination of CARE and CAST led to a decrease in anxiety and anger.

In a separate study, applied parent intervention, noted as P-CARE, compared the standard CARE program, denoted as C-CARE. A third group used a combination of P-CARE and C-CARE. The final group was a minimal-intervention group. The results showed that the combination of C-CARE and P-CARE led to an improvement in positive behavior and a reduction in negative behavior. Interestingly, CARE showed the greatest reduction in suicide risk behavior, depression, and anger. P-CARE alone showed no significant results (Katz et al., 2013).

Given the improvements in behavior showed by CAST and CARE, the programs received a letter grade of B. The follow-up evaluations showed no significant effects in reduction of suicidal behavior outcomes; consequently, the programs received a letter grade of D (Katz et al., 2013).

The Reconnecting Youth program
Reconnecting Youth is a school-based suicide prevention program that focuses on students who have poor academic achievement and are at increased risk of dropping out of school. These students are more likely to show symptoms related to suicidal behaviors, including substance abuse, depression, aggression, and suicidal ideation. Participating students are taught how to build resilience by controlling early signs of substance abuse and emotional distress. The program provides a framework for appropriate social support-system building through bonding activities and parental involvement while minimizing deleterious peer relationships. The program also focuses on strengthening connections to the school.

A concern with this program is that groups of at-risk youth participate together in the program, which could serve to strengthen deviant peer relationships. Multiple studies have evaluated this program. Eggert and Herting (1991) noted a decrease in drug use and a corresponding increase in the participating students’ GPAs. Overall, the program had no effect on school attendance. Fewer females reported having fewer deviant peer relationships, whereas males showed no change in the number of deviant peer relationships (Katz et al., 2013).

The Reconnecting Youth program helped reduce risk factors for suicide—such as anger, depression, and hopelessness—and led to increased self-esteem and social support. Note that not all the studies conducted to evaluate the effectiveness of this program were randomized controlled trials. But multiple separate trials have been conducted and have shown consistent results. As a result of this consistency, the Reconnecting Youth program was given a grade of B on outcomes of attitudes, knowledge, and skills training (Katz et al., 2013).
**The Good Behavior Game**

The Good Behavior Game (GBG) is a program for students in early elementary schools. It is based on classroom interactions by building teamwork and fostering behavior management to help children develop. It uses intrinsic self-regulation by rewarding teams that meet the behavior standards set by their teachers. A fundamental goal of the program is to create a positive classroom environment free from aggression and disruptive behavior where students are supported by their peers and can learn effectively. Students are intentionally separated in to groups, with an equal distribution of those with a disruptive and aggressive behavior history. The teachers publish the rules of the game with respect to student behavior, and the group with four or fewer infractions of permissible student behavior is rewarded (Katz et al., 2013).

The Good Behavior Game has been shown to improve such key risk factors as drug use, tobacco use, and alcohol use in adolescence and early adulthood. It works by targeting early aggressive and disruptive behavior, which is a shared risk among students and thereby prevents later maladaptive behavioral outcomes. A reduction in the above mentioned risk factors has a potential for affecting suicide rates. It is well known that poor academic performance can be linked to an increased propensity for suicidal behaviors, impulse control problems, drug use disorders, and antisocial personality disorder.

**Assessment of suicide**

Almost 3% of adults are assumed to experience thoughts of suicide at any specific time. The assumption is that the incidence of suicidal thoughts is much higher among adolescents. Five steps have been denoted key components of any suicide risk assessment (Kazim, 2017).

**Step 1, an assessment of risk factors:** Risk factors include different types of life events and circumstances, such as illness. As previously noted, the strongest predictor of suicide is the presence of a previous suicide attempt. Individual risk factors for suicide include major physical illness, chronic pain, and the presence of traumatic brain injury. Mental health disorders are also included in this category. This section should also include a family history of suicide and abuse; the patient’s psychiatric state of mind; the presence of drugs; and other confounders, such as insomnia (Kazim, 2017).

**Step 2, suicide inquiry, including specific questions about suicidal thoughts, suicidal ideations, suicidal plans, suicidal intent, and access to means:** In general, patients will not spontaneously report suicidal ideations, but it has been shown that up to 70% of patients will report their intentions to commit suicide to their friends and family members. To get patients to open up when asking about suicidal ideations, it is important that the clinician avoid asking leading questions. An example of a wrong question to ask is, “You are not thinking about committing suicide, are you?” The correct question to pose is, “Have you ever tried to kill yourself or thought about suicide?” If this inquiry reveals no indications of any suicidal ideations, questioning may stop at that time. However, if the clinician is highly suspicious that the patient may have suicidal thoughts but the patient initially denies any suicidal thoughts, he or she may keep asking questions as many times as necessary until the incongruence is resolved. The clinician must ask questions until any discrepancies between the assessment and the patient’s responses are addressed.

In cases where the patient is having suicidal thoughts, the clinician should ask specific questions about the intensity and frequency of the suicidal thoughts as well as the degree to which the patient is prepared. Does the patient have a suicide plan? If a specific plan is described, the clinician should document that and document whether the patient has self-injurious or lethal plans. Additionally, the clinician inquires about the method of suicide rehearsals, such as loading a gun, walking on a bridge to assess the height, or tying a noose. Whenever possible, the clinician should confirm findings with a family member or a close friend because patients are more likely to inform close relations of suicidal ideations than they are likely to tell a health care provider (Kazim, 2017).

**Step 3, assessment of the protective factors against suicidal thoughts, such as strong family ties and friendships or the presence of a significant other:** Additionally, religious belief and faith and a sense of belonging can be used as protective factors. It is best to explore the patient’s reasons to die versus reasons to live. The presence of protective factors can help dampen the suicide risk in people with low or moderate suicide risks. Ideally, protective factors can be strengthened and used as part of safety planning in patients with low to moderate suicide risks (Kazim, 2017).

**Step 4, clinical judgment:** The provider should use the above information to form and make a clinical decision on the risk of suicide. Clinical decision making is complex given the medical comorbidities, mental health diagnoses, and the contextual and environmental factors affecting patients with suicidal risk (Kazim, 2017).

**Step 5, the documentation of the above four components in their entirety within the medical record** (Kazim, 2017).

**Clinical settings**

Patients seen in an emergency room setting must be immediately referred to a psychiatrist, psychologist, or other qualified health care provider. Clinicians should also use the assistance of law enforcement and emergency response personnel, when needed, in outpatient...
cases that necessitate immediate transportation to a medical facility for evaluation. In all states, law enforcement has the right to place individuals into protective custody when there is suspicion that they may be a danger to themselves or others.

Emergency response and emergency room staff should be appropriately trained to deal with suicidal patients. An empathetic approach is indispensable in this case. Emergency room staff must be aware of any biases toward suicidal patients, including religious or philosophic beliefs, lack of formal psychiatric training, inadequate staff, and short staff departments. In an emergency setting, the challenge is identifying patients safe enough to go home. Some emergency departments have mental health professionals on call to help evaluate suicidal patients and determine those safe enough to go home (Kazim, 2017).

Patients on suicidal precautions in a treatment setting should be closely observed by clinical staff. As it stands, suicides of persons in a treatment setting is still reported as sentinel events in the clinical setting. In most clinical settings, suicidal patients are assigned a dedicated “sitter” to watch them; this intervention often decreases the need for restraints in most patients. The use of family members is highly discouraged because family members may connive with patients to make plans for escape, or if they see a patient leaving, they may not try to stop him or her (Kazim, 2017).

Mechanical and chemical restraints should be used judiciously in suicidal patients. The use of restraints should be minimized when possible. However, the use of restraints may be essential and potentially lifesaving in violent and uncooperative patients. All restrained patients must be assessed frequently, sometimes hourly. Often times documentation of the neurovascular status of the restrained patient must be performed. Finally, a re-evaluation of the need for restraints should be performed daily (Kazim, 2017).

Patients who are eventually discharged from the inpatient setting must have appropriate outpatient follow-up with mental health providers. Follow-up should be set up as soon as possible within a few days of discharge. Given that compliance with follow-up appointments may be low, the use of family members in helping patients to comply is greatly encouraged. Family members and friends can also be engaged to help reduce a patient’s access to lethal means of suicide as a strategy to mitigate the prevalence of self-injurious behaviors. This includes removing potential means of suicide from the home—guns, medications, or other toxic substances. Special attention should be paid to the patient’s documented suicide plan, and appropriate interventions should be implemented. Finally, appropriate documentation of the patient’s progress in the inpatient setting will help guide and inform decisions in the outpatient setting (Kazim, 2017).

Treatment of suicidal ideations should be chosen based on the patient’s underlying mental illness and manifestation of suicidal behaviors. For example, chronic suicidal behaviors should be treated with interventions based on psychotherapy, whereas acute suicidal behaviors should be treated with more aggressive interventions (Kazim, 2017).

Elderly patients who display acute suicidal behaviors typically require a plan that guarantees safety, including hospital admission.

Drug therapies Each patient should be individually addressed to evaluate the safety of the environment into which he or she is returning. In these circumstances, pharmacologic interventions are often employed. If pharmacologic interventions are used in patients discharged to home, it is imperative that the patient and family members understand the possible side effects associated with the drugs being administered, especially the use of antidepressants in patients who are depressed and suicidal (Kazim, 2017).

Several studies using randomized controlled trials have shown that the treatment of depression using drug therapy, such as antidepressants, has been associated with decreased suicidal ideation in individuals 25 years or older. Some studies have suggested that the use of selective serotonin reuptake inhibitors (Lexapro, Prozac) results in a greater reduction of suicide ideation compared to selective serotonin and norepinephrine reuptake inhibitors (Cymbalta, PRISTIQ) or norepinephrine-dopamine reuptake inhibitors (Celexa, Zoloft). Interestingly, in patients younger than 25 years old, antidepressant therapy has not been shown to decrease suicidal ideation and behaviors although it does decrease signs and symptoms of depression (Kazim, 2017).

In 2004, the United States Food and Drug Administration issued a warning regarding the risk of increased suicidality associated with antidepressant use in young people. Since then, the rates of diagnosis of depression and prescriptions of antidepressants for people aged 24 or younger has declined. However, the incidence of overdose using psychotropic drugs and the incidence of suicide in this group have both increased (Perlis et al., 2016).

Studies have shown that the higher the lithium content in water, the lower the suicide rates in that region. Even though the exact mechanism of action through which lithium works to reduce suicidal behaviors remains unknown. It has been theorized that it may function by reducing mood disorder episodes or by decreasing impulsive and aggressive behaviors.

Ketamine (Ketalar), a glutamatergic drug used as an anesthetic, has been used to treat suicidal behavior. Trials have demonstrated that low doses of ketamine used as an antidepressant invoked a positive response within minutes of administration in patients with major depressive bipolar disorders. Given this ability of ketamine to act rapidly, it is quickly becoming a promising treatment for patients with suicidal behaviors in emergency settings. The main drawbacks to the use of ketamine are its potential for abuse and misuse, the short-lived nature of the responses it invokes, and the adverse cardiac and psychotomimetic side effects it causes (Perlis et al., 2016).

Psychotherapies

Strategies of suicide management include nonpharmacologic interventions, such as individual psychotherapy, behavioral therapy, family therapy, and cognitive therapy. In cases of moderately to severe suicide risk, the primary concern is immediate safety.

The psychotherapeutic interventions established as the most efficacious treatments for suicidal behavior share certain common elements (Perlis et al., 2016):

- Exploration to understand the etiology of suicidal behaviors.
- Interventions that encourage positive and discourage negative behaviors.
- Explicitly focusing on suicidal behaviors.
- Having the therapist adopt an active attitude to treatment, including problem solving.
- Planning for coping with suicidal urges as an outpatient.
- Focusing on emotional and cognitive precursors of suicidal behaviors.

Dialectic behavior therapy is one of the most commonly used psychotherapeutic techniques for recurrent suicidal behavior. It has been used mostly in patients with borderline personality disorder. Dialectic behavior therapy promotes the belief in one’s own ability to succeed, the ability to emotionally self-regulate, and interpersonal effectiveness. It has repeatedly been shown to reduce the recurrence of suicidal behaviors in affected patients when compared to standard treatment (Perlis et al., 2016).

Dialectic behavior therapy is based on concepts from cognitive behavioral therapy. A greater effects has been noted in adults compared to adolescents, especially when suicidality is the explicit focus of treatment.
Metallization-based therapy focuses on teaching patients how to think about how their underlying thought and emotions are secondary to their own and other people’s actions. This, then, enables their ability to understand their own and other people’s perceptions and thus proves effective in reducing suicidal behaviors.

Other therapies
Nonpharmacological interventions for the treatment of suicide include electroconvulsive therapy. A study of patients with depression at high suicidal risk demonstrated that up to 75% of the patients treated with electroconvulsive therapy had no suicidal ideations or suicidal intentions after nine sessions.

Some preliminary evidence has suggested that high doses of repetitive transcranial magnetic stimulation applied to the left prefrontal cortex might rapidly decrease suicide ideation and suicidal behaviors. This intervention is potentially useful in emergencies where suicidal ideations and intent must be dealt with expeditiously (Perlis et al., 2016).

Suicide prevention

The first National Strategy for Suicide Prevention was put forth in 1999 by then-surgeon general David Satcher, MD. It was a landmark document that helped officially organize the strategies to prevent suicide across the country (U.S. Department of Health and Human Services, 2012).

Research has shown that suicides are preventable with early and timely low-cost interventions. Any efforts to thwart the daunting number of suicides worldwide must be thorough and multifaceted; suicide is complex and multifactorial in its etiology. Given that the etiology of suicide is multifactorial, an equally multisector intervention is necessary often involving education, labor, agriculture, business, justice, politics, law, and media. No single approach is impactful enough to decrease the incidence of suicide.

For any suicide prevention strategy to succeed, it is critical to fully understand the methods used to commit suicide. That way suicide prevention interventions are appropriately tailored to address them. All suicides are potentially preventable. Appropriately implemented interventions at the population and individual levels can help prevent suicides and suicide attempts. Some of these interventions include reporting by media outlets in a responsible way and introducing an alcohol policy to reduce the irresponsible consumption of alcohol.

Early identification of mental health disorders and substance abuse disorders is critical to any suicide prevention strategy. Additionally, training nonspecialized health care workers in the identification, assessment, and management of suicide has been shown to be an effective strategy in the prevention of suicide.

In many societies, mental illness is still considered a taboo, and many people thinking about taking their lives are too afraid to seek help for fear of being ostracized. Worldwide today, only about 28 countries have a suicide-prevention program. The lack of awareness by the general public with respect to suicide in particular and mental illness as a whole only potentiates the problem (World Health Organization, 2014; World Health Organization, 2016).

Suicide-prevention strategies should be unique to the target population and should address differences in patient characteristics, methods of suicide, socioeconomic status, age, and gender.

Given that suicide is a complex issue, multiple professionals must be involved in any strategies put forth. These stakeholders include policymakers, professionals in health education and law, the media, and community members. Any successful strategies must incorporate elements of suicide prevention, including screening for suicidal and homicidal ideations. In lower income settings, integrating suicide-prevention programs with the primary care field has been shown beneficial (Shrivastava et al., 2015).

It is also important to train nonspecialized workers—such as nurses, paramedics, nurses’ aides, and medical assistants—in identifying patients at risk for suicides and appropriate reporting of suicidal thoughts for ideal follow-up.

Making sure that a psychiatrist is available in communities at risk for suicide is effective in reducing the incidence of suicide. A shortage of specialists (psychiatrists and psychologists) has been shown to correlate with increased suicide rates (Shrivastava et al., 2015).

Access to health care within communities in general can affect the incidence of suicide, especially in circumstances where primary care services are integrated with mental health services. This allows for better resource utilization and better outreach.

The use of the media to increase awareness about suicide and to decrease the stigma associated with suicide is beneficial in educating the public and creating opportunities for open conversation about mental illness and disease (Shrivastava et al., 2015).

Using community-based research to obtain useful knowledge about which groups are at increased risk for suicide is critical. Also proper monitoring by health care providers, law enforcement, and public health officials should be carried out to ensure accurate and complete suicide estimates (Shrivastava et al., 2015).

Interventions

Many school-based, workplace-based, and community-based interventions and multicomponent primary care interventions can reduce the incidence of suicide and suicidal behavior. It has also been shown that the organization of primary care resources and access to care can reduce the access to means of suicide (Perlis et al., 2016).

A multicomponent preventative intervention program in the U.S. Air Force included leadership and gatekeeper training, increased access to mental health resources, coordination of care for high-risk individuals, and a higher level of confidentiality for those who disclosed suicidality. In this population, suicide rates were reduced by 35%.

It is well known that a substantial number of patients access primary care resources within one month of suicide, but they rarely receive a diagnosis of a mental disorder. There are some education programs for primary care doctors intended to help them identify and treat patients with depression. This can, in turn, decrease regional suicide rates, especially suicide rates in women. However, there is a continued need for education and additional physician training and support to improve patient outcomes. Specific needs include websites to provide support for physicians, increasing liaison between providers and psychiatric facilities, the implementation of suicide hotlines, and public education campaigns to train key community facilitators in the recognition of depression and suicide risk. These might all be important aspects of suicide prevention strategies (Perlis et al., 2016).

The integration of primary care with mental health resources has been shown to provide significantly more benefits compared to the usual primary care separate from mental health services when addressing outcomes for depression and anxiety. This has been shown to improve suicide ideation in older patients with depression.

There is a theory of means restriction based on certain assumptions, such as many suicides are impulsive by nature, and the belief is that restricting access to lethal methods might prevent a suicidal crisis. If the patient decides to substitute a lethal method for a less lethal one, the hope is that even if the patient still decides to commit suicide, he or she will choose a potentially nonfatal means of suicide attempt (Perlis et al., 2016).
The rate of suicide is regulated by the ease of access to certain methods whether firearms; natural gas; car exhaust; Tylenol; less toxic drugs, such as selective serotonin reuptake inhibitors or tricyclic antidepressants; pesticides; or jumping from bridges.

The implementations of laws to impede access to a method—whether firearms control laws, detoxification of domestic gas or car exhaust, limitation of access to certain drugs, lockboxes for pesticides, or bridge barriers, along with the installation of telephones and a hotline for crisis intervention—may lead to a reduction in the number of suicides. Also, there are individual-level interventions that could decrease access to lethal methods of suicides. For example, the safe storage of hazardous items, such as firearms or poisons, could be effective in preventing suicide. However, the effect of these interventions on morbidity or mortality has not been established (Perlis et al., 2016).

Appropriately following up patients who present to an emergency department after a suicide attempt can potentially reduce the risk of subsequent suicide attempts in the following 12 months.

Patients at risk of suicide can be identified by several means, such as the fact that they often contact health care services. It has been clearly shown that people who attempt and complete suicide will often seek medical help within 12 months of their suicide attempt and often times are seen by primary care providers, thereby giving them an opportunity to reach individuals contemplating suicide before they act. It is important to note that adolescents are less likely than adults to seek help in the last year and month before attempting or committing suicide. Despite the fact that patients who attempt suicide have a high prevalence of emotional or substance-related difficulties, fewer than 20% of these patients use medical services within a year after the initiation of suicidal thoughts and suicidal behaviors (Perlis et al., 2016).

**Effectiveness of crisis hotlines and online programs in preventing suicide**

Crisis telephone helplines, or crisis hotlines, are a valuable resource in community suicide prevention. There is substantial information that helplines reduce distress and suicidal behaviors in many callers.

It is important to recognize the importance and the influence of digital communication in health care. Currently, major crisis helpline organizations offer online help services through chat, instant messaging, and email (Mokkenstorm, Eikelenboom, Huisman, Wiebenga, Gilissen, Kerkhof, & Smit, 2016).

Mokkenstorm et al. (2016) evaluated the effectiveness of online services for people in the middle of a suicidal crisis. Services included volunteer-run helplines, online self-help courses, self-assessment tests, and brief online psychotherapy sessions. These services could all be accessed online by participants anonymously and for free.

**Online chat service: Report of a study**

One program evaluated in the report by Mishara et al. (2007) was called 113 Online crisis chat service. Their study observed crisis telephone helpline services during the years 2003 and 2004, with a total of 1431 crisis calls, including 503 suicidal calls, to more than 14 centers of the United States National Lifeline Centers. They rated the callers’ and visitors’ emotional states and ambivalence regarding suicide in the first and last two minutes of their calls. If a change in the caller’s attitude did occur, it was much more likely to be an improvement rather than a deterioration. Overall, Mishara et al. reported a small positive effect of telephone crisis calls, with most variables not changing significantly from the beginning to the end of the call (Mokkenstorm et al., 2016).

The researchers observed four helper styles based on the analysis of helper’s behaviors during hotline calls: 1) the supportive approach and good contact; 2) the collaborative problem-solving approach; 3) the active-listening approach; 4) the negative approach (Mokkenstorm et al., 2016).

The supportive and collaborative approaches when combined with empathy and respect were most related to positive outcomes. Interestingly, active listening was not significantly related to positive outcomes. The study design was set up as silent listening to the participants’ conversation and recorded only their demographic data based on their perception or if the participants revealed it.

Of the chats recorded, the average chat was 54 minutes. Most chat visitors appeared to be female—up to 78%. Clearly identified males, about 18.4%. The rest of the participants’ gender could not be clearly determined. On average, approximately 22.2% of the visitors appeared to be 18 years or younger; 53.6% were between 18 and 34 years; and 17.7% were between 35 and 54 years. A small minority (1.7%) appeared to be older than 55 years. The apparent age category could not be determined for 4.8% of the chat visitors. In participants younger than age 18, the male-to-female ratio was approximately 1:8 and eventually evened out in male and female visitors older than age 55 (Mokkenstorm et al., 2016).

Most participants were in a suicidal crisis (86.1%), with 61.1% expressing suicidal intent without plans, 21.2% expressing both suicidal intent and plans, and 3.8% contacting 113Online during or just after a suicide attempt.

Callers presented with an average of two problems. Mental health problems (defined as having psychological problems or receiving treatment for psychiatric disorders, such as depression, anxiety, psychosis, or post-traumatic stress disorder) were mentioned most frequently by 59.7% of the visitors, followed by problems with family or partners (23.4%) and rumination (18.6%). Females were more often in suicidal crisis and mentioned mental health problems, death of a person close to them, or physical violence significantly more often than males did. Males mentioned relationship problems and being a perpetrator of physical or verbal violence significantly more often than females did.

Visitors aged under 18 mentioned family problems with parents or children, school/professional problems, and being a victim of verbal violence significantly more often than visitors aged over 18 did. Visitors aged over 18 mentioned mental health problems and relationship problems significantly more often than visitors aged under 18 did (Mokkenstorm et al., 2016).

The 113Online crisis chat service reached a predominantly female and relatively young population, of which a significant proportion was return visitors. The ability to engage with young people is an asset of chat services, as telephone hotlines are shown to be relatively underused by youths. Given their elevated risk, it is also paramount to reach middle-aged and male suicidal individuals who were underrepresented in the sample.

Compared to the other studies, 113Online chat visitors seemed to be experiencing a suicidal crisis more than twice as often, 86.1% versus 35.2%. They had to cope with more types of problems (average 2 vs. 1.3) and suffer from mental health problems twice as often (59.7% vs. 28.4%).

These findings indicate that the outcomes of the 113Online crisis chats in 2013 were generally comparable to the outcomes of crisis telephone calls of U.S. Lifeline centers in 2003 and 2004 (Mokkenstorm, et al., 2016; Mishara, et al., 2007).

Comparing the other emotional state variables, more improvement and less deterioration were observed for the variables desperate, depressive mood, sad/happy, apprehensive/confident, and hopeless/hopeful. Less improvement and more deterioration were observed for helpless/responsive and confused/decided.

Given the general notion that more positive styles and attitudes lead to better outcomes, the question remains as to which elements in these styles and attitudes need to be further developed or strengthened to improve chat outcomes. Here, negative observations regarding
individual items, mood states, and missing values provide valuable clues for improvement (Mokkenstorm et al., 2016).

Because of the online disinhibition effect, ambivalent or negative attitudes may be expressed online in a heightened and sometimes provocative manner resulting in a less productive dialogue. On the other hand, visitors’ criticism may have reflected genuine dissatisfaction with the quality and outcome of the exchange with volunteers.

During the period observed in this study, volunteers were specifically trained in the use of solution-focused therapy principle, which is a fruitful way to work with suicidal individuals.

From reading the chat logs, it became evident that this approach could have drawbacks in its application by volunteers. For example, a volunteer’s one-sided focus on “what’s strong” rather than on “what’s wrong,” steering attention away from the exploration of problems may evoke a sense of lack of validation and disorientation in the visitor. This could explain why 12.4% of the 113Online visitors felt more helpless and 13.4% more confused at the end of their calls.

Some studies have pointed out that it is important to be transparent about the focus and the purpose of the chat at the beginning and throughout. As this study showed, chat duration is almost 3 times longer than call length. While chat is a slow medium, it is important for helpers to be patient yet assertive in the process and, if needed, gently remind the visitor to focus on critical issues within the available time without observing time limits in a forced manner (Mokkenstorm et al., 2016).

In response to the preliminary findings of the study, 113Online has adapted practice policies in line with U.S. Lifeline best practices. Helpers are now instructed to more proactively explore with visitors their reasons to live and reasons to die, to assess suicidal behaviors at the beginning of chats and returning to this issue at the end, and to work with visitors toward safety planning and links to care. In volunteers’ training and supervision, due emphasis is given to structuring the chat within reasonable but flexible time limits with a pragmatic rather than principal use of solution-focused counseling techniques. To optimize this collaboration and to avoid harm resulting from a disappointing dialogue, volunteers were made aware of the pitfalls of online communication, in particular with visitors who display ambivalent, incongruent, or provocative help-seeking behaviors (Mokkenstorm et al., 2016).

The 113Online website look and feel has been adapted to be more inviting and accessible for males and for middle-aged or older help seekers. Policies have been implemented to guide frequent visitors exploring with them potentially effective alternatives to regulate mood and to link them to other forms of care. To further engage the highly volatile and vulnerable group of young visitors, 113Online is piloting simple therapeutic e-learning modules specifically tailored to problem areas this group frequently presents with (Mokkenstorm et al., 2016).

Case studies

Case study 1
Mrs. B.—35 years old, married, two kids—presents for an annual checkup at her primary care doctor. She appears uncomfortable and refuses to make eye contact with the front desk nurse with whom she is usually friendly. She has been seeing Dr. Duke, but she is scheduled to see his partner, Dr. Cook, this afternoon because Dr. Duke is on vacation. Dr. Cook’s nurse, Joan, notices that Mrs. B. is not her usual self and appears “out of it” today. Mrs. B. has a remote history of depression, which was diagnosed as postpartum depression when her second child was born. Her second child is now 10 years old, and she has had no depressive symptoms since then. Of note, during the postpartum period, she had an episode of a suicide attempt. Dr. Cook is extremely busy today, and when Joan brings up Mrs. B.’s apparent depressed mood to his attention, he is extremely dismissive and remarks that her history of depression and prior suicide attempt was a thing of the past. Two weeks later, Mrs. B. is found by her older son after attempting to hang herself. She was admitted to the intensive care unit at the local hospital.

Discussion for case study 1
Upon review of Mrs. B.’s history, the admitting physician noted that three months earlier she noted that her husband had been unfaithful. She tried to cope with this stressor on her own, and although she saw a counselor monthly, she intentionally kept that information from the counselor at her last visit two months prior. Also, she cancelled her last two counseling sessions but did call a suicide hotline three weeks before her attempted suicide. The suicide hotline attempted to follow up and check in with her, but she was dismissive and ended up refusing to take their calls. In addition to her primary care physician, she saw her gynecologist four weeks before her suicide attempt. Her gynecologist did notice that she was not her usual self, but when she pressed her, Mrs. B. reported that her antidepressant dose was being adjusted by her therapist and so she would be fine in a few weeks.

In conclusion, Mrs. B. had four interactions with health care professionals within a three-month period before her suicide attempt. Although two of those providers suspected something was off, they did not fully appreciate the gravity of the situation. Part of the challenge with caring for patients who are seeing multiple providers is that communication among providers can be extremely challenging, and often times providers have to rely on patients for accurate communication of updates and pertinent findings.

In retrospect, her son—who was aware that his mother had a history of a prior suicide attempt—also was aware that she had contacted the suicide hotline before her attempt, but he did not want to betray her confidence by reporting his suspicion to the public.

Clearly, there is a need for continued education regarding mental illness and how it affects families. Also, patients with children who are old enough should be encouraged to share their diagnosis with families and encourage their families to use a support system as much as they feel comfortable.

Lastly, the nurse Joan should have been more proactive and should have screened Mrs. B. for suicidal ideation and intent during her last visit given that she had some context and a better understanding of Mrs. B.’s history than did the physician who was filling in. She chose to defer to Dr. Cook’s authority and failed to act on her intuitive nursing judgment. In addition, she should have at least reported her suspicious to Dr. Duke when he returned from his vacation four days after her visit.

Case study 2
Ella is a 16-year-old high school student. She requests to see a school therapist after a bad breakup with her boyfriend of three months. During her initial consultation with the school therapist, she reports that she has had suicidal ideations as well as intent and a plan. She reports that she has a plan to swallow a bottle of Tylenol to “make the pain go away.” When asked if she had access to Tylenol, she reports that she bought a bottle a few days ago and was just waiting to find the right time. The school counselor promptly contacts Ella’s parents who come in to meet with her. Ella’s mom reports that Ella told her that she bought a bottle of Tylenol because she was feeling depressed and she needed to feel like she was not existing. She reports that she has a plan to swallow a bottle of Tylenol to “make the pain go away.” When asked if she had access to Tylenol, she reports that she bought a bottle a few days ago and was just waiting to find the right time. Ella’s mom promised to report the counselor’s findings to her pediatrician. The next week Ella was found dead by her best friend on her bathroom floor.
Discussion for case study 2
Managing and treating suicidal ideations can be challenging, especially in children whose parents are dismissive of the warning signs in their children. The counselor in this case reacted appropriately by promptly reporting her findings and suspicions to Ella’s parents. However, Ella’s mom’s denial regarding the challenges her daughter faced was a particular hindrance in securing the right help for Ella.

The counselor should have tried to contact Ella’s father and tried to convey her sense of urgency regarding the immediacy of Ella’s needs. This was especially important given that her mother was being so resistant to getting Ella the help she needed. In the aftermath of Ella’s death, her friends and classmates should receive counseling. Additionally, Ella’s parents should receive grief counseling to help them cope with the loss of their daughter.

References

41. WHO also reported that suicide is the _____ most common cause of death among young people between ages 15 and 29 years.
   a. Third.
   b. Second.
   c. First.
   d. Fifth.

42. A study by Shepard, Gurewich, Lwin, Reed, and Silverman (2015) demonstrated that the average cost of one suicide (much of it through the loss of productivity) was how much?
   a. $10,000.
   b. $525,333.
   c. $750,359.
   d. $1,795,379.

43. Although suicide rates are lower among younger age groups than older adult groups, suicide remains one of the top _____ causes of death among people ages 44 and younger.
   a. Four.
   b. Six.
   c. Ten.
   d. Two.

44. Among American Indians and Alaska Natives, suicide rates peak during ________ and ________ and then decline.
   a. Childhood; adolescence.
   b. Adolescence; young adulthood.
   c. Middle age; old age.
   d. Their 20s; 30s.

45. Data from official vital statistics indicate that suicide surpassed ________ as the leading cause of injury mortality in the United States in 2009.
   a. Cancer.
   b. Alzheimer’s disease.
   c. Motor vehicle traffic crashes.
   d. Homicides.

46. Factors affecting the appropriate reporting of suicide certification include:
   a. Social stigma.
   b. Punitive life insurance policies.
   c. Lack of reliable witness testimony.
   d. All of these are factors affecting the appropriate reporting of suicide certification.

47. ________ is less likely to be included in the deaths related to suicide compared to deaths caused by firearm trauma, hanging, or asphyxiation.
   a. Drowning.
   b. Self-harm.
   c. Poisoning.
   d. None of these.

48. The characteristics of a medical examiner include all of these, except:
   a. They are usually registered nurses.
   b. They may serve multiple counties within the same state.
   c. They are appointed.
   d. They tend to be medical doctors with training in pathology and forensic pathology.

49. According to Rockett et. al (2015; 2016), the coroner system and the medical examiner system generally operate on a disparate _______ and _______ approaches in their retrospective processes of death investigations.
   a. Universes; beta.
   b. Philosophical; forensic.
   c. Medical; environmental.
   d. Experiential; subjective.

50. Identified variables that could affect the incidence of suicide in communities include:
   a. Gender ratio and age distribution.
   b. Urbanization rate.
   c. Poverty rate and region.
   d. All of these variables are those that have been identified to affect the incidence of suicide in communities.

51. Suicide rates tend to be higher in states west of what?
   a. Ohio.
   b. The Appalachian Trail.
   c. The Continental Divide.
   d. The Mississippi River.

52. Compared to medical examiner systems, _________________ are disproportionately located in more rural and less affluent areas of the country.
   a. County health systems.
   b. Volunteer-led healthcare.
   c. County coroner systems.
   d. Charity-based systems.

53. Despite multiple suicide prevention efforts, the suicide rate in the United done what in the last 100 years?
   a. Improved a little.
   b. Improved dramatically.
   c. Changed relatively little.
   d. Gotten higher.

54. The status of progress toward the Healthy People 2020 objective to reduce the suicide rate can also be directly measured using data from the ________________.
   a. National Health Institute.
   b. Department of Health and Human Services.
   c. Centers for Disease Control’s National Violent Death Reporting System (NVDRS).
   d. Department of State.

55. To prevent the occurrence of violent deaths in the United States, public health authorities need accurate, timely, and comprehensive ______________.
   a. Education.
   b. Surveillance data.
   c. Updates.
   d. Jobs.

56. The NVDRS defines a(n) ______________ as a “death resulting from the intentional use of physical force or power against oneself, another person, or a group or community.”
   a. Suicide.
   b. Violent death.
   c. Accident.
   d. Hate crime.
57. What is defined as “death resulting from the use of physical force or power, threatened or actual, against another person, group, or community when a preponderance of evidence indicates that the use of force was intentional.”
   a. Homicide.
   b. Suicide.
   c. Hate crime.
   d. Accident.

58. Which of these is one of these specific variables analyzed by NVDRS?
   a. The mechanism of injury.
   b. Whether the person who died was a victim of a violence-related injury.
   c. Whether the person who died was a suspect who inflicted a fatal injury on a victim.
   d. All of these are variables analyzed by NVDRS.

59. Nonsuicidal self-injury is defined as self-injurious behaviors with no intent to _______.
   a. Die.
   b. Harm.
   c. Get help.
   d. Follow through.

60. Nonsuicidal self-injury does NOT include:
   a. Repetitive cutting.
   b. Burning.
   c. Rubbing.
   d. Firearms.
Chapter 5: Understanding Trauma in Children

2 CE Hours

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Learning objectives

This workshop is designed to help you:

- Discuss what causes trauma, how it is defined and how it differs from normal stress.
- Analyze how trauma affects short- and long-term brain and body functioning within children and youth.
- Identify short- or long-term trauma symptoms, also called trauma stress adaptations, in infants, children and youth.
- Assess the mental health diagnosis of acute stress and post-traumatic stress disorder.

Defining trauma

Trauma is often defined as:

An experience outside the range of everyday human experience that creates higher and longer than normal stress responses in children when they personally experience, or witness someone else experience actual or threatened death or injury or threat to themselves or another person. As a result, they experience horror or terror. Traumatic occurrences cause individuals to feel trapped and helpless.

Infants, children and youth are increasingly exposed to conditions or situations that set the stage for them to become traumatized. For example, infants can be physiologically affected by how stressed their mothers were while they were in the womb, children can be traumatized by bullies at school, and youth are at risk for being traumatized on-line by sexual predators.

Trauma is created through a variety of situations that include:

- Accidental or violent death of a loved one.
- Life-threatening accidents and illnesses.
- Distressing medical procedures.
- Child abuse (physical, emotional, sexual) and neglect.
- On-going exposure to personal, family, community fighting, screaming, shouting, disturbing images.
- Refuge and war zone exposure.
- Natural disasters.
- Divorce.
- Bullying.

The term complex trauma describes the problem of children’s exposure to multiple or prolonged traumatic events and the impact of this exposure on their development. Typically, complex trauma exposure involves the simultaneous or sequential occurrence of child maltreatment, including psychological maltreatment, neglect, physical and sexual abuse, and domestic violence that is chronic, begins in early childhood, and occurs within the primary caregiving system. Exposure to these initial traumatic experiences and the resulting emotional dysregulation and the loss of safety, direction, and the ability to detect or respond to danger cues often sets off a chain of events leading to subsequent or repeated trauma exposure in adolescence and adulthood.

Trauma statistics

Childhood exposure to traumatic situations is on the rise. Here are some statistics that illustrate the high risk for infants, children and adolescents to be traumatized within the United States.

- 60 percent of adults report experiencing abuse or other difficult family circumstances during childhood. (National Center for Mental Health Promotion and Youth Violence Prevention, 2012)
- 26 percent of children in the United States will witness or experience a traumatic event before they turn four. (National Center for Mental Health Promotion and Youth Violence Prevention, 2012)
- Four of every 10 children in American say they experienced a physical assault during the past year, with one in 10 receiving an assault-related injury. (JAMA Pediatrics, 2013)
- 2 percent of all children experienced sexual assault or sexual abuse during the past year, with the rate at nearly 11 percent for girls aged 14 to 17. (JAMA Pediatrics, 2013)
- Nearly 14 percent of children repeatedly experienced maltreatment by a caregiver, including nearly 4 percent who experienced physical abuse. (JAMA Pediatrics, 2013)
- 1 in 4 children was the victim of robbery, vandalism or theft during the previous year. (JAMA Pediatrics, 2013)
- More than 13 percent of children reported being physically bullied, while more than 1 in 3 said they had been emotionally bullied. (JAMA Pediatrics, 2013)
- 1 in 5 children witnessed violence in their family or the neighborhood during the previous year. (JAMA Pediatrics, 2013)
- In one year, 39 percent of children between the ages of 12 and 17 reported witnessing violence, 17 percent reported being a victim of physical assault and 8 percent reported being the victim of sexual assault. (Finkelhor et. al, 2009)
- More than 60 percent of youth age 17 and younger have been exposed to crime, violence and abuse either directly or indirectly. (Bell & Jenkins, 2009)
- More than 10 percent of youth age 17 and younger reported five or more exposures to violence. (Bell & Jenkins, 2009)
- About 10 percent of children suffered from child maltreatment, were injured in an assault, or witnessed a family member assault another family member. (Bell & Jenkins, 2009)
- About 25 percent of youth age 17 and younger were victims of robbery or witnessed a violent act. (Bell & Jenkins, 2009)
- Nearly half of children and adolescents were assaulted at least once in the past year. (Bell & Jenkins, 2009)
The Fifth Edition of the DSM (DSM-5) includes a new developmental PTSD for children 6 years and younger under the age of 6. Listed below are the criteria for PTSD in children.

The 4th edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV) PTSD criteria were developed before substantial numbers of empirical research that supports this disorder was conducted on three- to six-year-old toddlers. These studies showed that when a developmentally-sensitive set of criteria were used approximately three to eight times more children qualified for the diagnosis compared to the DSM-IV.

 Initially proposed by Michael Scheeringa and Charles Zeanah, the criteria have been refined empirically, and endorsed by a task force of experts on early childhood mental health. While the bulk of the empirical research that supports this disorder was conducted on three- to six-year-old preschool children, the studies often included one- to two-year-old toddlers. These studies showed that when a developmentally-sensitive set of criteria were used approximately three to eight times more children qualified for the diagnosis compared to the DSM-IV.

**Trauma experiences cause physical changes**

When children experience terror, helplessness or entrapment during a trauma occurrence, their brains register a threat or signal of “danger!” and their bodies, in response to the message, defends against the threat. Human beings and other animals have a lot in common, including shared survival responses. And like other animals, human beings detect danger through their senses, such as sight, touch, sound, smell or even taste.

When our senses pick up on danger or danger threats, we react in a number of ways that can include changes in our breathing, sweaty palms, racing heart or a sense of foreboding. In order to cope with the traumatic situation and self-protect humans can freeze, fight, flee or adopt an attitude of submission. Individuals may experience any or all of these coping responses during a traumatic event.

**Trauma adaptations and why they differ from normal stress**

Trauma creates longer and higher-than-normal stress responses within the human body than those created by everyday stress. Stress is normal, but trauma isn’t, because trauma triggers extreme, intense and prolonged stress responses within the brain and body. Remember, trauma is out of the range of everyday human experience.

**Diagnosing trauma in children**

A challenge for the Diagnostic and Statistical Manual (DSM) taxonomy has always been to consider developmental differences in the expressions of disorders in different age groups. Research has suggested that individuals of different ages may express features of the same criteria somewhat differently. Furthermore, there may be sufficient differences in the expressions of some disorders to justify an age-related subtype of the disorder. This is important to consider particularly in Posttraumatic Stress Disorder (PTSD) because, although PTSD has been widely reported in children and adolescents, the DSM-IV criteria were developed before substantial numbers of studies had been conducted on young children.

The 4th edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV) did not have specific criteria for diagnosing PTSD in children, and many of DSM-IV PTSD criteria were not age appropriate for children. As a result, it was difficult (if not impossible) to accurately diagnosis PTSD in children. However, the 5th edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-5) now includes specific guidelines for diagnosing PTSD in children under the age of 6. Listed below are the criteria for PTSD in children.

**PTSD for children 6 years and younger**

The Fifth Edition of the DSM (DSM-5) includes a new developmental subtype of PTSD called Posttraumatic Stress Disorder in preschool children (ages six years and younger). As the first developmental subtype of an existing disorder, this represents a significant step for the DSM taxonomy. Since an alternative diagnostic set of criteria was initially proposed by Michael Scheeringa and Charles Zeanah, the criteria have been refined empirically, and endorsed by a task force of experts on early childhood mental health. While the bulk of the empirical research that supports this disorder was conducted on three- to six-year-old preschool children, the studies often included one- to two-year-old toddlers. These studies showed that when a developmentally-sensitive set of criteria were used approximately three to eight times more children qualified for the diagnosis compared to the DSM-IV.

**DSM-5 Criteria for diagnosing PTSD in children**

A. Children under the age 6 have been exposed to an event involving real or threatened death, serious injury, or sexual violence in at least one of the following ways:

1. The child directly experience the event.
2. The child witnessed the event (this does not include events that were seen on the television, in movies, or some other form of media).
3. The child learned about a traumatic event that happened to a caregiver.

B. The presence of at least one of the following intrusive symptoms that are associated with the traumatic event and began after the event occurred:

1. Recurring, spontaneous, and intrusive upsetting memories of the traumatic event.
2. Recurring and upsetting dreams about the event.
3. Feeling of being in or re-living the traumatic event.
4. Re-experiencing the event (flashbacks).
5. Avoidance of places, people, or activities that are reminders of the event.
6. Restriction of activities and interests.
7. Inability to feel or lack of emotional responses.
8. Fatigue, irritability.
10. Disturbed sleep patterns.
11. Numbness, detachment from others.

People who have experienced trauma are:

- 15 times more likely to attempt suicide.
- 4 times more likely to become an alcoholic.
- 4 times more likely to develop a sexually transmitted disease.
- 4 times more likely to inject drugs.
- 3 times more likely to use antidepressant medication.
- 3 times more likely to be absent from work.
- 3 times more likely to experience depression.
- 3 times more likely to have serious job problems.
- 2.5 times more likely to smoke.
- 2 times more likely to develop chronic obstructive pulmonary disease.
- 2 times more likely to have a serious financial problem.
3. Flashbacks or some other dissociative response where the child feels or acts as if the event were happening again.
4. Strong and long-lasting emotional distress after being reminded of the event or after encountering trauma-related cues.
5. Strong physical reactions (e.g., increased heart rate, sweating) to trauma-related reminders.
C. The child exhibits at least one of the following avoidance symptoms or changes in his or her thoughts and mood. These symptoms must begin or worsen after the experience of the traumatic event.
1. Avoidance of or the attempted avoidance of activities, places, or reminders that bring up thoughts about the traumatic event.
2. Avoidance of or the attempted avoidance of people, conversations, or interpersonal situations that serve as reminders of the traumatic event.
3. More frequent negative emotional states, such as fear, shame, or sadness.
4. Increased lack of interest in activities that used to be meaningful or pleasurable.
5. Social withdrawal.

What types of trauma do young children experience?
Young children are exposed to many types of traumatic experiences, placing them at risk for PTSD. These include:
- Abuse.
- Witnessing interpersonal violence.
- Motor vehicle accidents.
- Experiences of natural disasters.
- Conditions of war.
- Dog bites.
- Invasive medical procedures.

How is the diagnosis different in preschool PTSD?
Because young children have emerging abstract cognitive and verbal expression capacities, research has shown that the criteria need to be more behaviorally anchored and developmentally sensitive to detect PTSD in preschool children.

Immediate reaction to traumatic event criterion
The criterion that the children’s reactions at the time of the traumatic events showed extreme distress has been deleted. If children were too young to verbalize their acute reactions to traumatic experiences, and there were no adults present to witness their reactions, there was no feasible way to know about these reactions. This criterion, which has been shown to lack predictive validity for both adult and preschool populations, has also been deleted for the regular PTSD criteria in DSM-5.

Intrusion symptoms
The change to the re-experiencing symptoms is a relatively minor change in wording to increase face validity and, thereby, lower the symptom detection threshold. The old symptom of “recurrent and intrusive distressing recollections of the event ...” required three conditions: 1) recurrent, 2) intrusive, and 3) distressing. Research showed empirically that preschool children do not always manifest overt distress with their intrusive, unwanted thoughts. Some children were neutral or “over bright”. While distressed reactions are common, parents also commonly reported no affect or what appeared to be excitement. Furthermore, there were no differences in PTSD severity for those with overtly distressing recollections compared to those who showed other emotions with their recollections.

Avoidance symptoms and negative alterations in cognitions and mood
Because many of the avoidance and negative cognition symptoms are highly internalized phenomena, the most significant changes in the criteria for preschool children are in this section.
The major change in DSM criteria was to require only one symptom in either the avoidance symptoms or negative alterations in cognitions and mood, instead of the DSM-IV threshold of three symptoms. The number of these symptoms that are possible to detect is simply fewer compared to adults. The symptoms of “loss of interests,” “restricted range of affect,” “detachment from loved ones,” and “avoidance of thoughts or feelings related to the trauma” manifest in young children but are consistently ranked as some of the least frequent among the PTSD symptoms. The symptoms of “sense of a foreshortened future” and “inability to recall an important aspect of the event” were deleted because of the developmental challenges in manifesting and/or detecting them.
The wording of two symptoms was modified to enhance face validity and symptom detection. Diminished interest in significant activities may manifest as constricted play. Feelings of detachment or estrangement may be manifest more behaviorally as social withdrawal.

Increased arousal symptoms
Being the most behavioral and observable types of symptoms, few changes seem to be needed for these problems. The symptoms “irritability or outbursts of anger” was modified to include “extreme temper tantrums” to enhance face validity.
**Validation of preschool PTSD**

Evidence supports the criterion, convergent, discriminant, and predictive validities of the preschool PTSD criteria (reviewed in Scheeringa et al., 2011). Perhaps most convincingly, even when the threshold for the avoidance and numbing criterion was lowered from three symptoms to one symptom, the diagnosed cases were still highly symptomatic, with means of 6 to 10 symptoms across studies. Marked functional impairment across a range of domains has also been documented. Prospective longitudinal studies have also documented the longer-term stability of diagnoses and impairment over time.

**Assessment and treatment for preschool PTSD**

Standardized screening and assessment instruments have been developed for caregivers of this age group, with both self-administered checklists and diagnostic interviews. Evidence-based treatments for PTSD, such as cognitive behavioral therapy, are considered to be effective. A long-term, relationally-based treatment has shown effectiveness following interpersonal violence. Play therapy, eye movement desensitization and reprocessing (EMDR), and other modalities may be effective if the traumatic memories can be engaged in developmentally-appropriate methods.

**Trauma and its relationship with acute stress and post-traumatic stress disorder**

Due to physiological changes that occur within the brain and body as a result of trauma, immediately or long after a traumatic experience, infants, children and youth can acquire anxious and fearful conditions. They can become hypersensitive to cues that trigger unconscious, subtle, and sometimes even not so subtle, reminders of their earlier traumatic experience. Cues or triggers are stored trauma memories or trauma memory associations that prompt a survival response. They prompt trauma victims to avoid or challenge further exposure to real or perceived danger and prepare the body to cope with threat.

Unfortunately, triggers prompt survival responses regardless of whether there is real danger. Consequently, children can become conditioned over time to respond to “false alarms” or cues that, in turn, habituate them to become hyperaroused, hypervigilant and hypersensitive about personal safety.

Here are some trigger/cue examples that can put in motion hyperarousal states in infants, children and youth:
- Stress.
- Loud noises.
- Exposures to weapons.
- Nightmares.
- Speaking of trauma.
- Trauma discussion.
- Exposure to certain sensory stimulation, such as specific colors, sounds, smells, and images. For example, a child may become triggered by someone’s specific features, such as a mustache, size, age, clothing, or voice. These are stored trauma associations from earlier trauma.
- Sexual contact.
- Bathing.
- Physical examination.
- Certain hours of the day, such as bedtime or early morning.
- Media programming, such as violent programs, or programs that relate to their trauma. For example, programs that discuss tornados or hurricanes, or program themes about sexual abuse or domestic violence.
- Periods of calm.
- Certain types of holding or hugging.
- Nightmares.
- Exposure to weapons.

**Coping with anxiety**

In order to unconsciously or consciously cope with anxiety generated as a result of their traumatic experiences, children may use physical, emotional or psychological “adaptations.” When these adaptations are practiced again and again, they can become traumatic stress symptoms.

**Acute stress**

Acute stress is a condition that lasts at least two days, but generally not more than one month, and includes feeling numb and detached, re-experiencing the trauma through flashbacks or nightmares, avoiding places/situations that are trauma reminders, and feeling significant anxiety that interferes with normal functioning. Acute stress is a precursor to post-traumatic stress disorder.

Acute stress disorder may be diagnosed in patients who (A) lived through or witnessed a traumatic event to which they (B) responded with intense fear, horror, or helplessness, and are (C) currently experiencing three or more of the following dissociative symptoms:
- Psychic numbing.
- Being dazed or less aware of surroundings.
- Derealization.
- Depersonalization.
- Dissociative amnesia.

**Why children may or may not develop PTSD**

As a result of experiencing a traumatic episode, infants, children and youth may or may not develop acute stress or PTSD. Generally, it has to do with:

- **The severity of their trauma.** Depending upon the scope of the trauma, children may or may not be affected. For example, certain children may become traumatized when they view television hurricane footage. Other children may not be affected at all. Some children can become traumatized after witnessing caregivers being physically harmed, whereas some children may not have a strong caregiver bond and be unaffected. Still, early trauma such as sexual abuse by caregivers can create severe trauma. Terrifying experiences such as auto accidents can cause trauma as well.
- **Their life before their trauma.** Positive nurturing and supportive care before trauma has a lot to do with how children cope with their experience. If children have received strong nurturing and currently have support systems, they have generally received positive messages about personal empowerment. Consequently, they tend to better cope with trauma. On the other hand, if children experience little or no earlier support or intervention, and did not receive help for past trauma, their chances for healing are diminished or minimized.
**Caregiver response to their trauma.** Appropriate caregiver support should not be confused with overzealous or exaggerated caregiver response following their trauma. Children can be re-traumatized by caregivers when the responses:
- Overwhelm them.
- Cause additional child fear or terror.
- Distract from the child’s healing and focuses more on the caregiver.
- Reinforce self-blame, guilt or shame.
- Punish or blame the child.
- Further expose child victims to additional trauma through ongoing contact with perpetrators of trauma or other trauma sources.
- Teach and reinforce child victims to cope with their trauma in counter-productive ways, such as bullying, weapon use and causing harm.

**Genetic makeup.** Children are all different genetically. They may be predisposed to lesser or greater degrees of vulnerability with regard to being affected by trauma.

It is now evident that genetics provide a predisposition for children to develop in certain ways, but interactions in the environment have a major effect on how children’s genetics predispositions will be expressed. These interactions organize the brain’s development and thus shape how children are affected by trauma. According to Andreasen (2001), our genetic code is not as rigid as once thought. “Genes do not contain a static and unchanging set of instructions … rather they modify their influences on the body in response to their own ‘environmental’ or ‘non-genetic’ experiences.”

**Resilience.** Resilience is the ability to bounce back from adversity and to give it meaning. There are a number of attributes that assist children in overcoming traumatic experiences. They include:
- Responsiveness.
- Humor.
- Flexibility.
- Empathy and caring.
- Social competence.
- Planning and problem solving.
- Adaptive distancing or “loving from afar.”
- Inner locus of control.
- Spirituality.
- High expectations and a sense of future.
- A significant caring adult.

Successful resilient children find parent/caregiver surrogates that can include coaches, teachers, extended relatives, ministers, neighbors or counselors. Exposure to trauma causes the brain to develop in a way that will help the child survive in a dangerous world. It helps to be on constant alert for danger and quick to react to threats (which often results in the response of fight, flight, or freeze). However, the stress hormones produced during trauma also interfere with the development of higher brain functions.

The following shows the impact of trauma:

<table>
<thead>
<tr>
<th>In Young Children, Ages 0-5</th>
<th>Trauma’s Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of visual and auditory perception</td>
<td>Sensitivity to noise</td>
</tr>
<tr>
<td>Recognition of and response to emotional cues</td>
<td>Avoidance of contact</td>
</tr>
<tr>
<td>Attachment to primary caregiver</td>
<td>Confusion of what’s dangerous and who to go to for protection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In School-Aged Children, Ages 6-12</th>
<th>Trauma’s Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage fears, anxieties, and aggression</td>
<td>Emotional swings</td>
</tr>
<tr>
<td>Sustain attention for learning and problem solving</td>
<td>Learning problems</td>
</tr>
<tr>
<td>Control impulses</td>
<td>Specific anxieties and fears</td>
</tr>
<tr>
<td>Manage physical responses to danger</td>
<td>Reversion to younger behaviors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In Adolescents, Ages 13-21</th>
<th>Trauma’s Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think abstractly</td>
<td>Difficulty imagining or planning</td>
</tr>
<tr>
<td>Anticipate and consider consequences of actions</td>
<td>Over or underestimating danger</td>
</tr>
<tr>
<td>Accurately judge danger and safety</td>
<td>Inappropriate aggression</td>
</tr>
<tr>
<td>Modify and control behavior to meet long term goals</td>
<td>Reckless and/or destructive behavior</td>
</tr>
</tbody>
</table>

**More about how fear develops and accelerates**

Normal fear develops when children pick up a threat through one or more of their senses, and it is registered within the brain. (In children, the threat can include exposure to unfamiliar surroundings or people.)

The brain regulates and monitors threat responses. When a danger threat is registered, the entire human system can accelerate from calm to high arousal. Changes in feeling, thinking and behavior occur through breathing, heart rate and blood pressure, as well as through other mechanisms.

Stress hormones are released and prompt the high arousal state. Two familiar stress hormones associated with fight or flight, or the survival response, are noradrenaline and cortisol. Noradrenaline and cortisol are designed to respond to psychological or physical danger.

**Noradrenaline**

Noradrenaline is the brain’s alarm hormone and produces adrenaline and other chemicals. An “adrenaline rush” is a familiar phase that refers to feeling a rush of energy.

**Cortisol**

Cortisol prompts mental arousal and increases energy, in addition to other functions that include regulating sleep/wake cycles and the immune system.

**Tracking fear within the brain and body**

In tracking fear, the process begins when a threat is detected through the human senses. The sensory message is sent to the part of the brain that routes information called the thalamus. If the information registers as a threat, it is sent to the part of the brain that initiates a survival response called the amygdala.

Physical changes occur when:
- Breathing changes so that more oxygen is taken in.
- Perspiration changes in order to regulate body temperature.
- Stomach constricts, forces blood other places.
- Sugar is released from the liver into blood, for more energy.
● Heart rate increases.
● Blood pressure is elevated.
● Arms and legs receive extra blood flow for energy.

(The later developing and higher functioning parts of the brain that separate threat from false alarm and rein in the amygdala if the threat is deemed insignificant, are called the sensory cortex and prefrontal cortex).

Definition check-in

- **Amygdala** – An almond shaped region in the brain, part of the limbic system within the brain, that generates fear. The amygdala initiates the survival response and prompts the autonomic nervous system to increase heart rate and breathing. It also signals the adrenal glands to release hormones such as nor-adrenaline and cortisol.

- **Cortisol** – A stress hormone that prompts mental arousal and increases energy, in addition to other functions that include regulating wake/sleep cycles and the immune system.

- **Hippocampus** – Shaped like a sea horse, it is part of the limbic system within the brain that is involved in learning and memory. The hippocampus identifies associations and consolidates memory. It also evaluates and compares previous experiences.

- **Limbic system** – Located in the lower midbrain and consisting of various parts, such as the amygdala, hippocampus, septum, cingulated cortex and basal ganglia, it processes socio-emotional communication and regulates memory and emotion.

- **Noradrenaline** – The brain’s alarm hormone, it prompts mental arousal and increases energy by producing adrenaline and other chemicals.

- **Prefrontal cortex** – Part of the cortex, it recognizes and identifies threats.

- **Thalamus** – The sensory filter for the brain. The thalamus recognizes, integrates and organizes sensory information.

- **Serotonin** – A neurotransmitter that regulates impulses for emotions and keeps aggression in check. If serotonin levels fall, violence rises, including in children. Low levels of serotonin may cause depression, bad temper and explosive rage.

Connecting fear responses to trauma

If stress hormones are released over and over again due to a one-time occurrence or ongoing trauma experiences, infants, children and youth can be severely affected, and subsequently traumatized.

For example, when stress hormones become overactive as a result of ongoing stressors encountered during fetal development or early childhood, neural connections can be altered. These essential networks help make associations and think abstractly, laying the foundation for future intelligence, imagination and creativity. If neural connections are changed, hypersensitivity to cues that represent danger can spontaneously trigger automatic fear responses. Children can later misinterpret visual cues, in addition to experiencing depression, hyperanxiety, attention deficit and aggression.

Stress hormones can also affect the hippocampus, the memory-making part of the brain. Overactive stress hormones can cause memories to be distorted or lost. The hippocampus can also shrink in size.

Children can also be flooded with memories when they experience nightmares or obsessively think about their experiences. Flashbacks or internal images continue to exacerbate their trauma experience.

After experiencing trauma, children can also forget or block memories. Schacter (2002) reports temporary forgetting is more common than total amnesia.

Chronic stress can also wear out certain areas of the brain and create memories that shape the child’s perception and response to the environment, even after it improves.

This important information helps mental health professionals understand why children removed from unsafe homes and placed in new safer environments often respond as though they’re still in danger. Trauma causes human beings to be anxious and vigilant when triggered by sensory cues associated with their trauma.

Overactive stress responses can also cause irritability in the limbic system, the emotion regulating part of the brain. Hence, mood disorders, impulsiveness and hyper-aggression can emerge. Emotions can become desensitized as well, meaning that the ability to respond normally to real threats is impaired.

The memory part of the brain, the hippocampus, plays an important role when tracking fear, because it evaluates and compares previous experiences that have been recorded as memory.

When threats are assessed insignificant, or the threat is no longer “sensed,” the mind and body return to their original state of calm.

Because a child’s entire physical system can be affected by on-going anxiety or hypersensitivity due to unregulated danger triggers, the autonomic nervous, endocrine and immune systems can become affected as well. Consequently, children can experience headaches, stomach problems, rashes and low immunity.

In addition, neglect is trauma that is reflected in the absence of developmental skills in children. For example, neural researchers have discovered that spoken language boosts intelligence, social skills and scholastic achievements. Conversely, a lack of words stunts the brain. Trauma generated by neglect and demonstrated through malnutrition results in cognitive and motor delays, anxiety, depression, and social and attention problems as well.

Overall, the brain can become unstable as a result of overactive stress hormones that potentially keep the body in a constant state of readiness. Neural scientists have also discovered that due to trauma experiences, stress responses can cause brain structure to change and shrink!

A traumatic experience can set up a spontaneous, repetitive response in infants, children and youth that looks something like this:

- **Trauma trigger** – Sensory (visiting site of trauma).
- **Survival response** – High arousal (panic – fear).
- **Automatic coping response(s)** – Repeated or habitual (stomach ache, avoiding discussion, self-mutilation).

As a result of trauma, older children and adolescents, too, risk developing a variety of conditions that are reflected in how they negatively handle stress, curb their emotions, take risks, form relationships, remember, solve problems, view the world and care about themselves.

“Developmental experiences determine the capability of the brain to do things. If you don’t change those developmental experiences, you’re not going to change the hardware of the brain, and we’ll end up building more prisons.”

– Dr. Bruce Perry – neural psychiatrist
More about trauma adaptations

The human brain is sculpted by interactions with the outside world. When infants, children and youth are traumatized, they are at risk of acquiring a variety of emotional and physical problems or adaptive responses that reflect brain function. Many trauma adaptations interfere with their quality of life.

Additional information about stress and trauma:
- Infants born to depressed mothers risk reduced electrical brain activity in their emotion center. Thus, at age 3, they are more likely to be withdrawn, disobedient and aggressive.
- Children with severe sensory deprivation risk developing smaller brains due to abnormal growth within the cortex.
- Stress can affect a child’s ability to remember and transmit verbal information.
- Abnormal cortisol secretions (a stress response hormone have been identified in maltreated children) occur.
- Aggressive and violent behaviors are linked to chronic stress and neglect in children and youth.

Depending upon their age, children can experience different responses to the same trauma due to the fact that children are individuals and integrate their personal histories differently. Some trauma adaptations are not possible during certain developmental stages. For example, a small child may bite following a trauma, but an adolescent may run away.

Child trauma symptoms may or may not be similar to adult trauma symptoms, simply because of where children are in their development. If traumatized children do not receive help for their anxious conditions, they can carry their conditions into adulthood. Or they can acquire new symptoms as they pass through developmental stages, such as leaving home or becoming sexually active.

Some studies indicate that when traumatized children enter into puberty, their higher levels of noradrenaline convert to lower levels, low arousal and predatory behavior. These particular adolescents transform from victims to victimizers. One explanation is that brain cells exposed to constant stress burn out and drop to being less active in order to save themselves. (Perry)

How small children adapt to trauma

Small children may lack verbal and problem-solving skills. They can also have separation and sleep problems. They can fail to thrive, become depressed, hyper-aggressive, withdrawn and regress developmentally, losing mastery of a new skill, such as speaking or toilet training.

How elementary school-age children adapt to trauma

Elementary school-age children can confuse time and sequence of events when asked to recall or remember them. They can also tend to think they should have foreseen their trauma and done something to prevent it.

They may re-enact their trauma through drawing or play. Trauma re-enactment occurs when children recreate aspects of their trauma, such as carrying a knife after being attacked by bullies. Re-enactment differs from post-traumatic play. (Post-traumatic play is compulsive repetition of their trauma and does not appear to relieve anxiety.)

School-age children may avoid discussion or other reminders of their trauma and may also daydream as well as behave in immature and impulsive ways. Their moods may fluctuate from depression to mania and they can become openly aggressive and hostile.

How youth/adolescents adapt to trauma

Adolescents may incorporate traumatic re-enactment into their daily lives through excessive and/or impulsive behavior. Neural scientists know that the adolescent brain essentially prompts impulsive behavior. Trauma heightens their condition, however. Adolescents are more likely to fight, bully and otherwise engage in risky behaviors, such as sexual or drug experimentation. Teenagers are 2 1/2 times more likely than adults to be victims of violence.

Adolescents may become withdrawn as well and compulsively fantasize. They can respond in exaggerated ways to everyday stress or may be desensitized to the extent they become anti-social, demonstrating little or no remorse for their negative or disruptive actions.

Trauma adaptations

Here is a list of familiar trauma adaptations in children and youth, reflecting one of the three symptom areas:
- **Anxiety disorders.** Predominant feature of this disorder is anxiety.
  - It presents as:
    - Panic attacks.
    - Phobias – specific or social.
    - Obsessive – compulsive.
    - Post-traumatic stress.
Memories are categorized three ways: 

1. **Motor memories**, such as tying shoelaces and lifting a glass.
2. **Cognitive memories**, such as counting and problem solving.
3. **Emotional memories**, such as remembering a feeling such as happy or sad.

When children are traumatized, a negative neuronal pathway is created that establishes a foundation that may inhibit their later ability to respond to their environment in positive ways. If children’s brains are not stimulated by appropriate early nurturing, acts of kindness can be met with confusion and anger. This is because sensitized memory pathways about a safe world have not been created. For example, many frustrated foster parents or extended family caregivers have difficulty understanding why their “good works” appear to be in vain.

Traumatic stress can affect a child’s ability to remember and transmit information. Again, when a child’s cerebral cortex and limbic system register terror or extreme fear, the body responds and prepares to freeze, submit, fight or flee. Because cortisol plays a vital role in this survival response, filling the hippocampus (memory making part of the brain) and amygdala, it has been discovered that abnormal levels of secretions can be present in maltreated children. (Andreason, 2001) Consequently, neurons in the hippocampus can lose dendrites and spines. As a result, the hippocampus can shrink in size, limiting this area’s memory sorting and organizing functions. After experiencing trauma, the human brain can theoretically forget or block memories. Reports of temporary forgetting of sexual abuse by a family member, for example, are more common than reports of forgetting abuse by a nonfamily member. (Schacter 2002)

Psychologists have theorized that because children are emotionally and physically dependent on their caregivers, they need to selectively remember non-traumatic memories. The selection process allows the child to tolerate living with his or her family.

Children who remember childhood abuse later on can experience something called “directed forgetting” because children are susceptible to subtle, or not so subtle, direction from their perpetrators regarding their abuse. As a result, children and youth will consciously avoid those memories, repeatedly inhibiting access to them. Strong cues or later triggers can elicit emotions felt by the young survivor and memories can surface.

Positron Emission Tomography (PET) images have shown that people with blocked memories have less activity in certain parts of the brain, substantiating abnormal brain function. (Schacter, 2002)
Children can be flooded with trauma memories when they experience nightmares or persistent intrusive thoughts. These conditions can be deeply disturbing and licensed mental health professionals need to check in regularly with their young clients for reports of nightmares or intrusive thinking.

**False memory phenomenon**

Researchers have discovered that the brain is susceptible to suggestions in certain people. Experiments conducted at Western Washington University demonstrated that researchers could successfully implant false memories in a significant minority of study participants. (Schacter, 2002)

Right and left brain research has used split brain patients to offer other information. It has been discovered that the left side of the brain excels at developing schemata and has an ability to determine the source of a memory based on surrounding events. The right side of the brain is good at perception aspects of stimulus. The left brain constantly looks for order and reason when there is none, so it continues to make mistakes that include constructing a “potential past” as opposed to the true one. (Damasio, 2002)

Some researchers believe that false memories are encoded at the time of an event. Others think a general picture or schema is constructed and a later error occurs when reconstructing the past experience and untrue events consistent with the schema become part of the memory. Assigning a memory to the wrong source, such as mistaking fantasy for reality or misinterpreting the past, is called “misattribution.” All of this new research arms mental health professionals with important information as it relates to trauma memories and identifying trauma in children.

**Healing from trauma**

Infants, children, and even youth, are amazingly resilient when it comes to overcoming adversity and healing from trauma. This is due to the fact that as they continue to physically grow, their brains are developing as well. Consequently, infant and early childhood mental health are rapidly becoming mental health topics that address the needs of traumatized children.

Infant and child brains are especially elastic. They can be remapped or newly mapped to learn new skills and reprocess their traumatic experiences. Infant and early childhood physical stimulation through neural patterning can reprocess early trauma and set new neuronal pathways that set the stage for healthy development. New integration of information about personal safety, problem-solving and coping strategies build valuable new skills in young children as well as in youth.

Proactive healing interventions can literally change a young trauma survivor’s perspective and transform negative self-perceptions created from trauma and instill new information about empowerment. Consequently, fallout from trauma can be reduced greatly with immediate nurturing intervention and other supportive care.

**Trauma informed care**

In recent years, many mental health services and child welfare organizations have embraced an approach to treatment and recovery, known as Trauma Informed Care. Trauma Informed Care is an organizational structure and treatment framework that involves understanding, recognizing, and responding to the effects of all types of trauma. Trauma Informed Care also emphasizes physical, psychological and emotional safety for both consumers and providers, and helps survivors rebuild a sense of control and empowerment.

To provide trauma-informed care to children, youth, and families, professionals must understand the impact of trauma on child development and learn how to effectively minimize its effects without causing additional trauma.

A trauma-informed child and family service system is one in which all parties involved recognize and respond to the impact of traumatic stress on those who have contact with the system including children, caregivers, and service providers. Programs and agencies within such a system infuse and sustain trauma awareness, knowledge, and skills into their organizational cultures, practices, and policies. They act in collaboration with all those who are involved with the child, using the best available science, to facilitate and support the recovery and resiliency of the child and family.

A service system with a trauma-informed perspective is one in which programs, agencies, and service providers: (1) routinely screen for trauma exposure and related symptoms; (2) use culturally appropriate evidence-based assessment and treatment for traumatic stress and associated mental health symptoms; (3) make resources available to children, families, and providers on trauma exposure, its impact, and treatment; (4) engage in efforts to strengthen the resilience and protective factors of children and families impacted by and vulnerable to trauma; (5) address parent and caregiver trauma and its impact on the family system; (6) emphasize continuity of care and collaboration across child-service systems; and (7) maintain an environment of care for staff that addresses, minimizes, and treats secondary traumatic stress, and that increases staff resilience.

**Conclusion**

Trauma is outside the range of everyday human experience and creates higher and longer-than-normal stress responses in children when they personally experience or witness someone else experience actual or threatened death or injury, or sense threat to themselves or another person. They experience horror as well as feeling trapped and helpless.

When confronted with trauma, infants, children and youth can experience freezing, fight, fleeing or submit to the threat.

Acute stress and post-traumatic stress disorder are the mental health diagnoses associated with trauma. Acute stress and PTSD represent symptoms generated by trauma survivors in order to cope with their triggered survival responses and anxiety.

As a result of trauma, infants, children and youth can acquire anxious conditions that spontaneously respond to association triggers that cue them into survival responses.

Not all trauma survivals become traumatized, but ongoing higher and longer stress responses can gradually wear out parts of the brain and negatively effect overall brain function.

Trauma adaptations (PTSD symptoms) fall into three categories and include persistent re-experiencing of the trauma, persistent avoidance of stimuli associated with the trauma, and persistent symptoms of increased arousal not present before the trauma. When working with young trauma survivors, it is helpful to keep in mind how they are affected by trauma memories and to check in regularly for nightmares and intrusive thinking.

Healing from trauma occurs more readily in infants, children and youth because their brains are more elastic and compliant. Early intervention through nurturing and supportive care are key in re-processing trauma and altering its long term affects.
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61. The term complex trauma describes the problem of children’s exposure to multiple or prolonged traumatic events and the impact of this exposure on their:
   a. Development.
   b. Well-being.
   c. Neurons.
   d. Families.

62. 26 percent of children in the United States will witness or experience a traumatic event before they turn ________.
   a. Two.
   b. Four.
   c. Six.
   d. Eight.

63. Because young children have emerging _________ cognitive and verbal expression capacities, research has shown that the criteria need to be more behaviorally anchored and developmentally sensitive to detect PTSD in preschool children.
   a. Concrete.
   b. Abstract.
   c. Lucid.
   d. Confusing.

64. The major change in DSM criteria was to require only one symptom in either the ________ or negative alterations in cognitions and mood, instead of the DSM-IV threshold of three symptoms.
   a. Avoidance symptoms.
   b. Negative symptoms.
   c. Avoidance alterations.
   d. Threshold alterations.

65. Due to physiological changes that occur within the brain and body as a result of trauma, immediately or long after a traumatic experience, infants, children and youth can acquire ________ and fearful conditions.
   a. Aggressive.
   b. Restrictive.
   c. Anxious.
   d. Restorative.

66. ________ is a condition that lasts at least two days, but generally not more than one month, and includes feeling numb and detached, re-experiencing the trauma through flashbacks or nightmares, avoiding places/situations that are trauma reminders, and feeling significant anxiety that interferes with normal functioning.
   a. Post-Traumatic Stress Disorder.
   b. Acute stress.
   c. Trauma reaction.
   d. Short-term trauma.

67. ________ is the ability to bounce back from adversity and to give it meaning.
   a. Restoration.
   b. Recovery.
   c. Resilience.
   d. Recuperation.

68. ________ is the brain’s alarm hormone and produces adrenaline and other chemicals.
   a. Noradrenalin.
   b. Endorphin.
   c. Ephedrine.
   d. Testosterone.

69. Stress hormones can also affect the ________, the memory-making part of the brain.
   a. Limbic system.
   b. Hippocampus.
   c. Cortisol.
   d. Thalamus.

70. __________ is an organizational structure and treatment framework that involves understanding, recognizing, and responding to the effects of all types of trauma.
   a. Attention restoration care.
   b. Stress recovery system.
   c. Continuum of care.
   d. Trauma informed care.