

Therapeutic Use of Video Games in the Treatment of Posttraumatic Stress Disorder (PTSD): A Case Study of an Immersed 10-Year-Old Boy

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Abstract: Working therapeutically with video gamers has almost entirely consisted of an overshadowing addiction perspective. This undoubtedly leads any therapist working with video gamers to assume they are addicted, further guiding treatment into a reduction or complete termination of all video games. To date, there are no known uses of video games in a clinical setting as therapeutic tools. This case study illustrates use of Archetypal and Jungian therapies prescribing video games for a 10-year-old male diagnosed with Posttraumatic Stress Disorder (PTSD). Video games were utilized as a main form of inclusion and immersion playability. He experienced a reported improvement in his symptoms across his environments. Parental involvement, therapist's knowledge of video game worlds, and using video games' heroic motifs were critical to the client's understanding of himself. If an addiction lens had been utilized, the client may not have been successful. Through this comprehensive study, the research will showcase that clinicians should aim to think outside of the addiction lens while working with video gamers. As therapists are presumed to be experts in communication, it makes sense to utilize the language of the video game world to communicate and understand where the client may be presently situated. Utilizing this immersive experience opens the door for a more collaborative therapy, increasing communication about video games, playing, and extrapolating players' experiences into real life contexts.

Keywords: Video game addiction, Geek therapy, Video games, Clinical psychology, Clinical case study, Video game therapy.

Millions of people play video games on and offline in today's society (Duggan, 2015). However, adolescents and teens are the main consumers of video games with 97% of ages 12-17 playing computer, portable, web, or console video games daily (Lenhart *et al.*, 2008). One of the many primary interests in video games from either a popular news or academic perspective has been in the addictive potential of video games spurring psychological disciplines to propose the idea of video game addiction or Internet Gaming Disorder (IGD). The possibility that participation in video games might have individual therapeutic probability has been largely ignored (Charlton, 2002; Bean, 2019). Working therapeutically with video gamers has almost entirely consisted of an overshadowing addiction perspective disallowing other methods of interventional techniques to be identified (Griffiths, 2002; O'Connor, 2014). This undoubtedly leads any therapist working with video gamers to adopt an addiction perspective which further guides treatment into a reduction or complete termination of all video games due to the perceived addiction. However, this does not allow for the video game itself to be a useful tool in treatment. The possibility, albeit unlikely, that 97% of today's youth are being treated as addicted and not immersed is a

potential assumption which warrants further research. Therefore, it is important to explore the current paradigm of "video game addiction" in therapeutic practice to identify whether the concept incorporates video gamers, their experience, and appropriate clinical practice.

INTERNET GAMING DISORDER & GAMING DISORDER

The Diagnostic Statistical Manual, 5th edition (DSM-5) has listed this newfound problem as a phenomenon called "Internet Gaming Disorder" (IGD) requiring further clinical research before being included in future manuals (American Psychiatric Association, 2013). The APA currently asserts that Internet gaming disorder (IGD) is also commonly referred to as: "*Internet use disorder, Internet addiction, or gaming addiction*" (APA, 2013, p. 796, emphasis original). This newly proposed disorder, IGD, has nine specific and behaviorally oriented criteria (American Psychiatric Association, 2013). These criteria appear to be based upon the premise that substance addiction symptoms can be extrapolated and similarly placed upon the virtual worlds and video game players to create the new diagnosis of IGD (*i.e.* switching any substance use disorder with video games). This usage of similar standards appears to be etiologically unfounded as the criteria are behaviorally driven; opening up other behaviorally driven past times as possibly addictive

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(Ferguson, 2016; Kardefelt-Winther, 2015). Even with these observations, the media reports on this controversial topic are heavily laden with instances of problematic video gaming without proper adherence to sound psychological data predictably, thus inciting moral panic across consumer and non-consumers alike (Bowman, 2015; Ferguson, 2016; Price, 2014; Theis, 2016).

Using these same ideologies and frame of thinking, almost anything could be considered to be addictive or someone to have an addiction. Indubitably, replacing video gaming with reading, walking, cooking, or even dancing follows a proposed and semantically similar formulation of addiction; and in some cases, some researchers have suggested it as so (Maraz, Urbán, Griffiths, & Demetrovics, 2015). One may say a reason these other areas of delight are not “addictive” is they are considered more socially acceptable than playing video games, pathologizing what many may consider to be a happy and enjoyable past-time while furthering judgmental and stereotypical thinking.

There appears to be further difficulties with the conceptualization of IGD as many of the scholars disagree on symptomology or the proposed criteria. For instance, past studies have been criticized for focusing on preoccupation of video games rather than addiction, misconstruing addiction, and high engagement, and being primarily behavioral oriented in their methodologies (Charlton, 2002; Ferguson, 2016). Even with this etiological fault, it has not stopped academics from using the fallible criteria in research studies. Furthermore, the results of IGD studies have had problems with replication, agreeance on symptoms, and general results surrounding the diagnostic criteria. Again, this has not stopped some scholars from reporting IGD exists in an abnormally high range 8-10% of video gamers even when a more sensible majority of research suggests the relatively rareness of the disorder at levels of 1-3% of video gamers (Charlton, 2002; Choo *et al.*, 2010; Gentile, 2009; Mentzoni *et al.*, 2011; Morahan-Martin & Schumacher, 2000).

More currently, there has been significant clinical debate on the World Health Organization's (WHO) category of Gaming Disorder for similar reasons as IGD (WHO, 2016). However, there has been significantly more criticism of the category implemented by the WHO focused upon concerns that the “instruments lack clinical validation, lack norm scores, lack information on measurement specificity, lack

standardized assessment, lack longitudinal case follow-up, are essentially atheoretical, and suffer from fundamental psychometric issues such as an implicitly assumed, but potentially inappropriate reflective measurement model” (Bean, *et al.*, 2017).

As such, there is much to continue to be examined from an ethnographic and anthropological approach to video games, video gamers, and their gaming habits. Researchers and clinicians have been calling for more research into the areas of understanding video games, virtual worlds, and the players who participate in them from an ethnographic approach (Taylor, 2006; Boellstorff, Nardi, Pearce, & Taylor, 2012; Ceranoglu, 2010). Some of the reasons being the misrepresentation of high engagement of video games with addiction behaviors, the use of video games as a coping and processing skill, and even the longitudinal data on when an individual enters a new phase of life on reduced game time playing (Charlton, 2002; Charlton & Danforth, 2007; Karlsen, 2013; Lehenbauer-Baum & Fohringer 2015; Scharkow *et al.*, 2014; Van Rooij *et al.*, 2011)

THE CONCEPTUALIZATION OF VIDEO GAMERS

There is emerging literature which is examining the psychology of video game players. Other areas of motivation, personality, identity, and avatar-character identification suggest more substantial conclusions can be drawn outside of the IGD literature for a greater understanding of the video gamer's habits and culture. For example, Bean (2015) discovered four distinct personality profiles across multiple genres of play using latent profile analysis on over 19,000 video gamers and the Big Five Inventory. The profiles were consistently found across the different main genres suggesting different personalities may gravitate towards different genres, but specific personalities may be found in all genres. Nick Yee (2006, 2016) has also broadened the discussion of video gaming in linking dimensions of video gamers with personality types. This suggests personality plays a role in the video gamer's experience of their virtual worlds, yet IGD makes little to no effort to incorporate these findings.

Meanwhile, public stereotypes additionally propose negative representations of the video gamer population, as they are socially constructed and accepted regardless of the fictional nature of the content (Kowert, Festle, & Quandt, 2014). This furthers ideological faults about the culture and proposed problematic gaming. Moreover, authors Jamie Banks and Nicolas Bowman (2013; 2016) have shown holistic

player-avatar experiences are crucial to understanding choices and character attachment of the video game player. Personality, character identification, motivation, and avatar creation are qualities which are not considered to be important to the IGD discussion, further biasing the behavioral connection and a lack of understanding basic video gamer behavior.

With much of the etiology and current research in disarray about IGD and a lack of other in-depth video game character variables being included, it is important to conduct case studies in therapeutic practice to evaluate whether other therapeutic approaches may be useful. Examining video gaming research outside of the IGD literature appears to allow a greater and more comprehensive idea of video gamers than the suggested IGD criteria.

THERAPY

Clinical researchers to date have incorporated cognitive and play therapy interventions for the treatment of video gamers showing improvements in adaptive functioning suggesting other perspectives outside of addiction can be viable (Adal, 2013; Harpur, Lawlor, & Fitzgerald, 2006; Van, 2014). However, they appear to suffer from a lack of integration of video game knowledge and character development which normally is deemed to be of extreme importance in understanding different cultures-in this case video gamer ethos. As therapists are presumed to be experts in communication, it makes sense to utilize the language of the video game world to communicate and understand where the client may be presently situated. Utilizing this immersive experience opens the door for a more collaborative therapy, increasing communication about video games, playing, and extrapolating players' experiences into real life contexts.

While a cognitive behavioral approach would emphasize a focus on irrational cognitions and dichotomous thinking it would leave the importance of virtual experience out of the process. The different experiences via playing the video game can be further discussed in therapeutic sessions increasing rapport, engagement, and greater understanding of the habits of the client. By asking questions and requesting attention be placed in certain areas; an individual can learn more about themselves, their video game habits, and why they play certain roles. It additionally engages dialogue about the virtual world and the player's interest instead of subjectively deciding an individual's behavior to be behaviorally maladaptive. As such, the therapist does not become entrapped by the addiction

paradigm of thought and can constructively approach the topic in efforts to learn more about the client's experience and virtual worlds.

The decided therapeutic modality was a Jungian archetypal approach focusing on the heroic mythology and immersive qualities a video game offers to players and the efficacy of Jungian techniques (Roesler, 2013; Shedler, 2010). The video games themselves impart a mythology for the video gamer via the storyline and character choices made in the game (Bean, 2019). Archetypal and mythological perspectives adhere and place significant importance upon these cultural domains, images, choices, and avatars teasing out important psychological material which may be ignored through a different theoretical approach.

This case study placed a significance of viewing the video gamer and the different realms as a different space in which to grow, fantasize, and explore. It deemphasized general stereotypes of the video gamers and focused treatment through an archetypal lens which allowed a greater and holistic understanding of the video gamer to unfold. More specifically, it focused on the archetype of the Hero and the Hero's Journey and the idea of immersive experiences within the clinical and video game settings.

Examples of the Hero archetype can be found throughout history with many various authors drawing conclusions from stories across many cultures (Campbell, 1972; Mark & Pearson, 2001; Standen, 1987; Tillman, 2003). Video games are no different, they are a different cultural artifact that is current in society today. As purported by Bean (2019) the video game *The Legend of Zelda* holds multiple archetypal symbols along with a deep heroic mythology. Furthermore, Laffan (2016) identified psychological themes found within the video game consistent with images in Jungian theory suggesting symbolism is evident in the act of playing. To view or understand them, it requires knowledge of the video game world, the characters played, and an immersive stance into the specific virtual world.

JUNGIAN ARCHETYPES

Archetypes are images with universal meanings attached to them (Stein, 1998). What comprise archetypes are the similarities in which they are presented. They create an analogous thematic form of what is common between multiple scenarios, ideas, behaviors, objects, and images. For example, a snowflake is symbolic for winter or air conditioning

while a print of a sun means summer or heat. Similarly blue conceptually means cold while red is the equivalent to hot. Place these pictures on anything and the person viewing them can understand the representation quite simply. Archetypes are identical in fashion. People feeling them have similar emotions which are alike even when events in which they occur are different. Archetypes are even experienced by individuals across varying cultures and identities. This is what makes archetypes so powerful and exceptional to direct experience; they are commonly felt and experienced across the world including the similar video game avatars (Bean, 2019; Hillman, 2004; Jung & Hull, 2006). These configurations can be seen through historical texts, art, religion, fables, myths, and in the case of this paper, video game characters.

As for the conceptualization of archetypes in video games, they indeed represent archetypes, but in a literalized format. Video games mythicize the archetype through the interaction experienced by the video gamer. The video game character or avatar itself is a representation of the archetype created by the video game developer. The image of the archetype, avatar played, gives it life, but the *playing* of the character gives it meaning. What is meant by this is the character is only an avatar comprised of pixels. Without the video gamer to interact, move, and have the character explore, it would not exist past the pixelated stage. By playing as the character, the video gamer brings meaning to the existence of the pixels. The storyline in which the avatar is played, whether chosen through a linear path or open world fantasy, is as, if not more, important to the image of the archetype. It helps individuals create a specific narrative for the character which may represent internal manifestations of our own personality. These instances of the video gamer finding meaning are extremely rich and important to the video gamer and their thoughts and behaviors.

THE HERO'S ARCHETYPE AND JOURNEY

The Hero archetype is of someone that follows the subsequent general ideas and principles of the hero regardless of gender through varying circumstances (Campbell, 1972; Mark & Pearson, 2001; Pearson, 1989). Possibly at one point in everyone's lifetime one must stand up to a bully, take someone's side in an argument one may be unsure of, save a complete stranger from a burning building, form an opinion or theory of how the world works, or even write a book or academic article. These actions require heroic energy to complete them. This is because must put his or herself and their experience into a form which will be

critiqued by others as they may not share the same direct experience. However, if one has enough history or experience, there is a high chance of being able to relate at least a part of it to their experience in some format. Overall, it requires internal strength to overcome the odds (Campbell, 1972; Pearson, 1989).

To be considered a hero, one must display and exemplify the ideals of said hero. These generally consist of facing adversity, danger, and odds in which one normally would not expect to have a favorable outcome; of having the courage to continue the journey despite the high chance of failure. Self-sacrifice is generally another part of the hero's personification or character, commonly ending with the demise of the hero and in turn, the saving of a person, companions, or world justifying the hero's destruction (Campbell, 1972; Standen, 1987). Typically, in the beginning of the story the hero is considered to be weak, amount to very little, and is described as childish or having a childlike essence. The journey of the hero forces the character, actor, or avatar to take up the life's challenge thrust upon him or her and cast away his or her childlike nature for a grown-up and more mature-like state of being. Through their journey he or she gains expertise, power, courage, and knowledge of himself/herself in which to overcome adversity, use power appropriately, and join the adult world. Without the appropriate journey and acquired wisdom, the hero chances becoming a villain while believing he/she is still playing the role of a hero and savior of whom he/she is realistically subjugating and tormenting. These types of heroes are considered commonly found within all areas of life, including our own personal mono-myth as suggested and generally accepted by Joseph Campbell (1972). Through the playing of the video game the player is participating in a specific myth while creating personal meaning in a safe virtual environment.

CASE INTRODUCTION

The present report describes a case study of "Greg," a Caucasian 10-year-old boy who came into the office in a constant state of mistrust of his current surroundings including his family. He had been previously diagnosed with posttraumatic stress disorder (PTSD) by a prior therapist. Greg attended a local school where he was in regular education classes and recently was observed by his teachers to be having depressive and anxiety symptoms. When he witnessed physical altercations at school, he immediately became anxious and worried. He lived with his biological father and step-mother and no other children. Greg had been

playing video games in excess by the proposed IGD clinical standards (more than three hours per day, obsessional discussion about video games, lack of participation in alternative activities, using the virtual world to reduce his stress, anxiety, and depression, and playing almost every day of the week) and was having difficulties with his interpersonal interactions in conflictual situations, familial connections, and decreasing his video game playing time suggesting he met criteria for clinical addiction by the DSM-5 proposed standards (American Psychiatric Association, 2013). Greg's personal response to playing video games was "it is a way for me to forget" which is similar to IGD's idea of avoidance. However, Greg's father additionally played with his son to explain the video game world and to increase his understanding of the video game world his son was playing in.

PRESENTING COMPLAINTS

Greg's step-mother and father expressed their concerns about his exhibition of aggressive tendencies, difficulties with attention, anxiety and depression at home and school, and his parents felt as if he was breaking apart from the family. Greg was socially isolating himself and withdrawing from his parents at home. Additional concerns were his traumatic background including physical and verbal abuse, his difficulty with his biological mother, and complications with social isolation at times in many facets of life. For example, Greg had close friends at school, but would become anxious and worried when physical altercations occurred. A recent example had been when his friends began play fighting with him at school, Greg became anxious and wanted to leave the area and his friends out of a fearful reaction to the aggression his friends were demonstrating.

Greg had additionally been unable to trust anyone besides his step-mother and biological father because he had been "hurt too many times in the past" including by a previous therapist. His past therapist had been able to build rapport with him and earn his trust but had lost it when the therapist sided with his biological mother on visitation rights. Greg had seen this as a major problem due to his past altercations with his mother and felt abandoned. As a result, Greg became angry and refused to talk to the therapist any longer. His parents worried about his condition as a consequence to the loss of trust in a mental health professional who was in direct care of their son.

As a result of his past, Greg became curious and immersed with the video game worlds, specifically

Garry's Mod and the Borderlands trilogy. He would play them or discuss them as he got home from school, when he had any additional free time, or with his friends. As stated above, his father would play video games with him to build closeness in their relationship, help Greg understand the world and consequences, as well to monitor the games being played. Greg's parents expressed concerns about the video game worlds he chose to play in, but were unsure about the consequences it was having on his developmental psyche.

TREATMENT

A total of seven weekly sessions were conducted with Greg on his mood difficulties, past history, family concerns, traumatic background, and video game habits. A great amount of rapport had to be built quickly with him as he lost the relationship with this previous therapist and was mistrustful at first. This quickly dissipated once Greg found out his therapist knew substantial information about the video game world and the games he played. He reported feeling more comfortable working with a therapist who understood his world and "did not look down" on him for playing these video games as his previous therapist had done. At the end of the first session, the therapist prescribed Greg continue to play video games with his parents to help his parents with the understanding of the video game world and so they could help him process and overlay character qualities upon Greg's life difficulties. This entailed Greg to immerse himself into his characters played and question why he played defined roles, chose in-game identities, and how he could relate these characteristics back into his life experiences.

Session One

Greg came into the office observed as distrustful and hesitant. He sat in the seat looking around the room, avoiding eye contact, and responding in short sentences while being cautious to evade answering open ended questions. It became clear he was not willing to disclose any personal information about himself until he trusted his therapist. However, once we began to discourse about superheroes and video game characters, he began to pay more attention. Greg became more animated and excited about discussing his accomplishments and experiences within his virtual worlds. Of how he was powerful and could withstand multiple attacks, but still be able to hold out and win the area or level by his determination. He further expressed how he was able to play the video games

because they provided cathartic experiences for him and helped create positive and helpful coping styles for him. These coping styles consisted of thinking of how to handle a new situation, dealing with confrontation, helping people in need, and being rewarded for caring behaviors as identified by Greg.

In fact, his father had additionally been playing the video games with him and helping him process the emotional content found within each game. Through exploration of motivations, we were able to hone in on a specific game to which he attributed much of his coping mechanisms, ability to process information, and felt powerful and meaningful within the virtual realm. It just so happened; this virtual world was playing an important role for Greg at this time. It appeared to be allowing him to experience different methods in which to handle difficult scenarios for himself across his lifespan and different peer circles. He expressed an importance of his characters and how they were specifically chosen for qualities felt needed to be represented in the virtual world as he saw these same qualities in himself. Even with the identified game being one specific video game franchise, Greg identified three games he was currently enjoyably playing in total. The primary video game trilogy being played was called *Borderlands*. In total, there are three games in this series to date which can be played in multiplayer online or offline or by oneself. Greg had already played the first two that had come out and was working on the third one at the time of therapy.

Sessions Two, Three, and Four

As we continued to talk about the video game, class points (ability points specific to the character being played which gave them special and powerful abilities), and the linear storyline we were able to briefly see the progression of the characters Greg chose to play as. He selected to play as a ranged sniper or in-your-face melee brawler during this play-through of the games. However, it was discovered Greg continually played the same characters or avatars within all three videogames suggesting some standardization of avatar building, itemization, and playability. Moreover, Greg had difficulty with affiliation with any character which was not personally deemed to be "good." This additionally projected problems on his ability to delineate between good and bad incorporating a dichotomous cognition style.

Through discussing his interest towards the different games and characters it became clear Greg was experiencing a heroic journey through his characters

which made him feel powerful and important to non-player characters (NPCs) in the video game whom he was saving during his missions and sacrificing his life at times. When this idea was brought up to Greg he additionally came to the realization that he was playing a heroic journey throughout all three of the different video games during our analysis of his characters, experiences, and motivations.

Through examination of Greg's conscious thoughts, choices within the videogame, and experiences outside of the videogame, we were able to work on his own personal heroic journey found within. Greg chose to work as a hero saving everyone he could, including other NPCs who he did not believe deserved it. He stated it was because they asked for his help. The personal heroic journey occurred very quickly because of first-hand knowledge and playability that the therapist had of the *Borderlands* video game franchise and that Greg was able to relate it to his personal experience including his trauma to the video game characters. Greg had the ability to understand different concepts and relate them to his characters because of his knowledge of the video game and his playing other video games.

Even with this personal knowledge of the video game, it was imperative to suggest different and diverse themes seen through Greg's video gaming experience as a reason for playing. The reason for this was because the therapist may have seen, and did see, different archetypes that may not have been visible for Greg. Examples of these other archetypes were a treasure hunter, king, or soldier. If Greg was forced to submit his experience to these different archetypes or experiences upon him and they did not synchronize with his view of himself, then they were then not meaningful or have any relevance to his experience. If these ideas were enforced upon his experience claiming they must be true, it would not have moved him past basic playing of his character and the possibility of losing rapport would ensue. This would have been an example of a therapist imposing their ideals upon the client and not necessarily listening to the client's experience. It is similar to the idea that people play these types of video games because they are *addicted* to them and cannot stop playing them as IGD proposes. In this specific case, the video game choices he made and why he was so interested in the game itself.

Forcing an opinion upon Greg would have hurt the rapport, but also would have impeded the work in allowing his experience of the video game to unfold.

The important matter at hand was to find the experience that spoke to Greg on a deeper connection to properly understand, expand and enlarge his heroic journey, and allow him to consciously identify with his character(s) archetypes during his immersive experiences. As a result, after multiple analyzations of his game play, he felt as if he played the video games to understand his personal heroic journey. We discussed the heroic journey he had to go through in each of the video games and how he experienced them. In addition, there was another NPC that was not playable, but was in all three virtual realms. His name was Handsome Jack. Through playing these video games he was able to understand why he was drawn to certain characters and overlaid their qualities upon his life as well.

For example, we discussed how in certain situations with his peers, Greg decided to take a spectator approach in the conversation or playing when he felt he did not have anything to contribute, or his self-esteem was low. However, in other situations he would jump right in and participate and become very excited at the different prospects when his self-esteem was higher. These were very symbolic with his character development within the virtual worlds as well with his sniper (distance video game player) and melee character (in the midst of the excitement video game character). We further discussed the possibilities of him choosing his characters he played as because they *represented him* in the video game itself. Further, by playing as a part of himself in the video game, he was able to work through his feelings and concerns with the implementation of his coping skills and father helping him understand the video game world as well. Greg then became more thoughtful and further engaged with his character as a form of himself.

Discussing these revelations with his parents later confirmed the heroic journey experiences Greg was having at home and school. When suggesting the idea of him playing as himself in the video game worlds and working through his difficulties, his parents reported they also felt as if these ideas were true. His father, who played with him, also mentioned he felt as if Greg was not just using these characters as a form of entertainment, but also as a method of understanding himself. As a result, the immersive experience of playing video games together was helpful for his parents to remind Greg of the difficulties his characters would experience and how Greg was able to defuse them. Alas, helping both Greg and his parents understand the impact of the gaming strategy on Greg's day to day hero's journey.

Sessions Five and Six

In the consecutive sessions, we discussed Handsome Jack and where he may have gone wrong in his cognitions and greed across all three video games environments. Handsome Jack was a NPC character that was helpful at first with guiding the character played and selling new equipment, but became the evil villain for the last game. We were able to determine in the first videogame Greg believed he was a hero by working for a good cause and helping players through the sales of in-game items and hints at where to explore next. In the second video game, Greg deciphered that Handsome Jack had begun to change in his thoughts and patterns when talking to people (the players) and acting out through maladaptive behaviors and uncordial words. Handsome Jack would use more negative choices and aggression to obtain a result rather than thinking through his actions for a less or non-destructive approach. Finally, in the third installment, Handsome Jack became the villain in which the video game player had to have a final showdown in order to beat the game.

Greg then had to discuss the importance of being a hero and the difference between a hero and a villain. Greg was able to understand this conceptually through his superhero play in the form of good versus evil but showed some difficulty with more abstract and nuanced parts of the concept. To help him expand his knowledge and understanding of this topic, he was prescribed to play Garry's Mod. Garry's Mod is a sandbox video game where minimal character limitations are in place, Minecraft would be considered another type of this specific genre. In Garry's Mod, the video gamer can roam and change the virtual world at will and the game world itself emphasizes exploration and creativity rather than end game attributes and leveling their character.

Garry's Mod was used for Greg to fashion a character who he deemed to be a hero within a world with many villains to defeat. He had to push his limits in order to create these different characters and tell a story of how each villain was defeated. Greg described this to be a challenge because it made him think about how each person was different in their thinking patterns. However, he also began to notice the villains were individuals who thought they were positive with their actions, but in reality, were negative and harmful. Greg named his hero "Papa Alcachalla" and continued to evolve on the idea of what comprised a hero. He

even was able to draw his hero out in the therapy room on paper and describe how he was able to take care of the villains.

From this point of working together the focus was on the heroic journey of Greg himself, and Handsome Jack. In discussing the archetype of the hero, which Greg was playing, and the archetype of the villain Handsome Jack; Greg was able to determine that a villain was a misguided hero in his eyes. In essence, Handsome Jack meant well, but took the wrong approach, was blinded by personal desires, and was too aggressive in his tactics. Overlapping this new distinction for Greg provided differential insight into his videogame play and how he could approach his own difficulties in life. Overlaying the general concepts found within the videogame to his actual life experiences and trauma, Greg was able to see how he had found and developed his own personal hero and that his anger was his villain. Whenever he lost control, his villain side was coming out because he was driven by one thing: his anger. Greg additionally was able to see when his friends became angry, they turned to villainous behavior, and required some attention to rectify their behaviors.

Around this time, he began to talk to his friends about these concepts and asked them to monitor their behaviors and his during school day while using similar tactics during his time in other environments. In the moment, if one of the friends began to act/began acting aggressively, another friend would ask the question "are you being a villain or a hero?" Through these interactions, Greg was able to feel more comfortable with himself and his friends. This further allowed Greg to use his metacognitive abilities by discerning how other people are thinking in situations. He reported by using the hero and villain ideological approaches, he was able to place himself in their shoes and understand where the other individual was psychologically approaching from possibly suggesting a decrease of child egocentrism (Berger, 2014; Feldman, 2015). He and his parents began to report he was able to handle his anger easier and reflected upon his cognitions with greater ease by asking himself "is this what a hero does?" He was able to think clearer and rationally when experiencing difficult situations, diffuse altercations, and increase his positive emotions. Furthermore, Greg was able to adapt to using the concepts presented in his sessions across multiple areas of his life while maintaining continuous success with his behavior.

Session Seven

Greg's final session focused on termination and discussing his learned skills. He was given time to think about his experience and how his current skills were able to be used in his different contexts. We role-played new scenarios he had not experienced yet to determine how he would be able to handle new and unfamiliar problems which he may come across. Greg was able to think through these difficulties using the same hero and villain mentality he learned in his previous sessions to find a solution.

Greg's hero continued to shine through much more often than his villain. Once he was able to understand when his villain portion of his own personal heroic myth was approaching within his cognitions, behaviors, and words; he was able to take a moment to step back and put a stop to it. He was also able to begin to understand and notice when his personal villain was approaching consciousness while being able to take a step back to control his maladaptive emotions. He *understood* why it was happening and was able to make a meaningful memory, relationship, and knowledge from it all because he had the virtual experience to rely on from playing the Borderlands Trilogy. In essence, he had been shown the concepts through his video game play and exploration of his virtual worlds, but just required some overlapping and exploration of the characters and his life experience.

Greg was able to see his resilience in being a hero, having overcome his travesty in his past, being able to push through and continue in life, and with the knowledge that he has many supporters in his life, he was able to let go of most of the anger. In truth, this is where most of his drive had come from over his life and will continue to come from. As we concluded our final session, Greg was ready to leave the therapy room and continue to mold his myth of being his own hero.

FOLLOW-UP

At three month and twelve-month intervals Greg's parents reported that he continued to be more outgoing, understanding his emotions on a greater expanse, and that he was making new friends and allowing his experience to unfold naturally. His parents reported this as a marked improvement as he used to "hold back" in conversations and "be unsure of himself." They further reported being amazed and happy with his transition in school, friendships, family life, and attributed it to the different interventions applied during our therapy sessions. Most prominently,

Greg has been able to incorporate less dichotomous cognition patterns into his daily life. His step-mother reported "he is able to see that good versus bad isn't always black and white and we talk about that even now." She attributed this substantial change from the discussions about Handsome Jack during therapy.

Fortunately, his parents had been continuously willing and constantly present for helping him transition and understand the video game and its applications to his real life which continually appears to have been transformational for Greg. Without their extended help, it may have been a slower transition overall, if at all, for Greg. His parents provided crucial interventions at home to help with the processing of his emotional and physical trauma through his playing of video games. Without the prescribed interventions of the parent's understanding the gaming world Greg was interested in, this may not have occurred organically at all. In fact, having the parents learn more about the video game worlds Greg played additionally gave them understanding about their son and they became more comfortable understanding his experience and working with him on his difficulties. Without the intervention, Greg most likely would have had substantially more difficulties as he continued in life.

TREATMENT IMPLICATIONS OF THE CASE AND RECOMMENDATIONS

This case study illustrates the use of Archetypal heroic journey and Jungian therapies with prescribed video games for a 10-year-old male diagnosed with post-traumatic stress disorder. Video games were utilized as a main form of treatment inside and outside of the therapeutic setting to increase personal growth and abilities of Greg along with a greater understanding for his parents of the video game world. With the inclusion of and immersion playability of the different video games along with the emphasis of the heroic journey, he experienced a reported improvement in his symptoms across his environments by himself and his parents. He was able to utilize the virtual worlds and concepts found within to increase his abilities and then overlay them upon his life difficulties. Through the help of the therapist involved, the video game world was an important and safe playground for Greg to learn about himself and problem solve through an archetypal and imaginative new narrative. He was able to transfer material learned within the virtual world, his character, and his actions to his other environments with great success.

Incorporating the hero's journey into the therapeutic process appeared to be critically helpful in allowing Greg to overcome his difficulties and increase his confidence. The literature on the concept of the heroic journey suggests every individual undergoes multiple personal and heroic journeys throughout their lifetime (Campbell, 1972). For Greg this was an important part of his life which in turn, he came to realize was an important feature of himself.

Each cluster of sessions outlined above had a primary focus. The first was to build rapport and have Greg trust and be mentored by the therapist. This was exceptionally advanced by the knowledge of video games by the therapist which helped engage Greg substantially. Second, emphasis was placed upon enlarging Greg's perspective of the heroic journey through video game play and character identification. Greg had to learn how he was using his hero as a form of safe imaginative play and discovering parts of himself through his in-game choices. Third, attention upon the creation and articulation of hero compositions with detailed discussion of the experience and how the video games provided this for him in his life as well as his preferred video games. This final step of the therapeutic relationship required the previous therapeutic foundations to have the full effect for Greg. Had the concepts of IGD been followed and video game play be abolished or determined to be maladaptive, this may not have come to pass. Instead, therapy may have taken longer and may not have been as successful. Through the inclusion of video games into therapeutic practice important growth ensued and insight was built. As 97% of adolescents play a form of video games on multiple devices, this opens communication doorways in therapeutic practice of working with video gamers (Lenhart *et al.*, 2008). Therefore, this should be a focus for future practitioners to utilize with video game addiction/immersion cases.

Parental involvement was also critical to Greg's success, particularly his at-home and school behaviors. His parents helped him experience different emotional content which surfaced during his video game play and later in his different environments by using the idea of the hero. They ensured he followed through with his practice across the different settings in forms of support rather than other methods of punishment or escapism. Overall, this created a broader and more accepting support network in which Greg quickly thrived and succeeded. His parents additionally immersed themselves in the video games Greg was playing and therefore were more able to answer questions and

provide guidance when necessary or queried. Parental involvement is considered to be key in any therapeutic process, thus should be considered a first line of defense/offense when working with this population and is largely recommended.

A key and important part of the overall process was the therapist's knowledge of the video game world. It allowed rapport to be quickly built and provided key talking and discussion topics. Furthermore, with this experience of the virtual world it provided more accelerated understanding of the greater concepts which could be extrapolated from a less knowledgeable, surface level, or brief viewing of the video game. By playing the video game itself, the therapist was able to place himself in the client's own world space and therefore work appropriately from it. Knowledge of the video game world is crucial to understanding what an individual may be experiencing. Intrinsically it makes common sense to only discuss and use knowledge of what we have experience of, however for the case of IGD, it seems to have been a lost phase of understanding the root cause. Therefore, before pursuing this method, it is recommended a therapist should have more than a basic understanding of the video game world the patient is involved with. This may include briefly learning about the different gameplay, character developments, and linear storyline uniquely found in each video game or even consulting with video game experts.

With Greg's improvement over the course of seven sessions, it illustrates the progress of one child using video games, archetypes, and the heroic myth to help with his difficulties. Had an addictive perspective been utilized instead of the immersive/Jungian approach focus would have concentrated upon the removal of video games from Greg's life possibly damaging the clinical relationship along with his personal growth. Greg would not have been able to practice a new narrative through his video game play. This would not have occurred because of the observed behaviors Greg was exhibiting in different environments and through his video gaming habits being considered to be addictive in nature by some scholars and clinicians alike. This sentiment continues to grow larger in the clinical and counseling community with the detrimental appearance of a lack of understanding the client and the relationship to the video game itself (Griffiths, 2002; Maraz, Urbán, Griffiths, & Demetrovics, 2015; O'Connor, 2014). It also disallows the video game itself to be part of the treatment and experience to grow. As outlined through this case study, there may be different

approaches which may be more suitable for clinical cases as such to help improve client's well-being and useful tools for engagement.

CONCLUSION

To date, no known use of video games in a clinical setting as therapeutic tools in the manner of this paper is apparent within the current literature. As such, more documentation of this strategy is required to examine a psychologically and culturally different approach to video gamers outside of the normal "addict" scope. Greg may have been a more astute individual who was able to transfer material much easier than the average video gamer, but still required the guidance and tutelage of an experienced therapist and video gamer to draw the appropriate elements out of the video games and into the real world. Furthermore, as archetypes and the heroic narrative was identified in Garry's Mod and the Borderlands Trilogy; it is important to determine whether other video games hold similar or identical characteristics. It is highly likely they do exist and can be used similarly to this case study for treating individuals who play video games.

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