Computer games as a therapy tool for psychological and emotional disorders

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ABSTRACT

The difficulty of engaging children and adolescents in psychotherapy is a challenge for those attempting to work with this group. Often this group is distressed and disturbed making engagement hard to establish. Finding new ways to overcome this means looking at contemporary culture for methods to gain greater access to young people. This paper will review recent research and expert opinion papers on the topic of the use of serious games (games designed for uses other than purely entertainment) and regular off-the-shelf games.

Keywords: computer games, therapy, psychological disorders, emotional disorders

1. INTRODUCTION

Video games first really became commercially successful in the 1970s, mainly in arcades (Ceranoglu, 2010). Home consoles began to appear in the last 1970s as the technology improved and prices reduced. These devices connected to home television sets to allow basic games to be played at home. This was the beginning of a major cultural and social change in entertainment (Gettler cited in Ceranoglu, 2010). Some recent authors estimate up to 63%, or two out of three people, have played video games within the last year (Horne-Moyer, Moyer, Messer, & Messer, 2014). Such is the high prevalence of engagement with video gaming. Shortly after the rise of video games as entertainment, it was discovered that they could also be used for psychotherapeutic treatment.

2. LITERATURE REVIEW

Ceranoglu (2010) explored the varying use of video games for treatment in children and adolescents within psychotherapy. He found that mainstream games that had been modified, and games that had been specifically developed for use in psychotherapy had been used as tools for both engagement and intervention. He found that some studies such as Kappes & Thompson (1985) and Gardner (1991) cited in Ceranoglu (2010) reported success in treating impulsivity in teenage offenders by raising awareness of emotional states in these individuals. Ceranoglu (2010) found that other studies carried out by Favelle (1995) and Steiner (1997), reported video games were useful in developing the child's engagement in the therapeutic relationship itself. Although small in size and not easily generalisable, Ceranoglu (2010) believes this points the way to a more effective way to engage young people in psychotherapy.

Horne-Moyer et al (2014) reviewed electronic games used in specific psychotherapeutic interventions, as well as those used for engagement enhancement. For these purposes, they found that electronic games were equivalent to but not better than regular therapeutic techniques. However, they found that games did enhance engagement and were more acceptable than

traditional treatments. A more interesting aspect to Horne-Moyer et al (2014) researched the use of group gaming to enhance social skills in studies by Ferguson et al (2014) and Favelle (1994). Horne-Moyer et al (2014) concluded that many of the studies reviewed had methodological limitations that limited the generalisability of these games.

Fernández-Aranda et al (2012) described the development of a serious video game for the treatment of people with attitudinal, behavioural, and emotional symptoms of impulse related disorders. This game relied on the use of bio-feedback, (using electrical sensors attached to the patient's body to transmit information to the game such as; heartrate, heartrate variation, skin temperature, respiratory rate) to encourage the patient to actively manage their responses. Patients learned improved skills in self-awareness and managing their mind and emotional responses. These patients demonstrated acceptability of treatment when used in conjunction with video games. They also found this approach was able to access and treat some of the more difficult aspects of mental disorders.

Franco (2016), discussed the value of combining video games with narrative therapy in the treatment of adolescents. Narrative therapy was developed as an intervention that allows the client and family to re-author the problem in functioning of the family system. He believes the use of specific role-based video gaming allows for greater opportunity for new narratives to be developed by clients.

Hull (2009), focused on play therapy in treating emotional disturbances in very young children. Within his study, he concluded that video games provided increased opportunity for change in the client. He proposed that metaphors derived from the video games were able to be translated to change within the client from this innovative form of play therapy.

Coyle et all (2004) found the use of a specifically developed serious video game, Personal Investigator, improved outcomes in areas of therapeutic relationship development and engagement with psychotherapy. Improvement was particularly noted in motivation, problem solving, and discussion skills, areas that adolescents find particularly challenging.

Finally, Tárrega et al (2015) explored the treatment of gambling disorders utilising the Playmancer serious video game platform in conjunction with a cognitive behavioural therapy intervention. They demonstrated significant changes in

outcomes for gambling abstinence. These outcomes included improvements in impulsiveness, self-control, and emotional

regulation. Again, although the results in this study demonstrated conclusive evidence for the efficacy of combining video games with cognitive behavioural therapy, the generalisability of the study was limited by the small sample size and lack of a control group (Tárrega, et al., 2015).

3. ANALYSIS

Despite the diversity of the selected articles, that ranged from literature reviews, scientific reports, and expert opinion pieces, there are many commonalities between them. All the papers highlighted the increased engagement with psychotherapy and acceptability to clients when video gaming was utilised as either a primary or adjunctive intervention.

4. CONCLUSION

Using either appropriate or especially developed video or computer games has enhanced the ability to access some of the more difficult to approach problems such as emotional regulation, anxiety, and impulse control - especially in children and adolescents who most often find these areas difficult to talk about.

5. REFERENCES

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