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The Role of Context in Online Gaming Excess and Addiction: Some Case Study Evidence

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Abstract Research into online gaming addiction is a relatively new area of psychological study. Furthermore, there are studies that have claimed that online gaming addiction may be addictive because of self-report accounts of very excessive use of up to 80 h a week. This study uses data from two case studies to highlight the role of context in distinguishing excessive gaming from addictive gaming. Both of the gamers in this study claimed to be playing for up to 14 h a day yet and although they were behaviorally identical in terms of their game playing, they were very different in terms of psychological motivation and the meaning and experience of gaming within their lives. It is argued that one of the players appears to be genuinely addicted to online gaming but that the other player is not based on context and consequences. The two cases outlined highlight the importance of context in the life of a gamer and demonstrates that excessive gaming does not necessarily mean that a person is addicted. It is argued that online gaming addiction should be characterized by the extent to which excessive gaming impacts negatively on other areas of the gamers' lives rather than the amount of time spent playing. It is also concluded that an activity cannot be described as an addiction if there are few (or no) negative consequences in the player's life even if the gamer is playing 14 h a day.

Keywords Addiction · Gaming addiction · Online gaming · Online video games · Case study

Introduction

Research into online gaming addiction is a relatively new area of psychological study. There have been an increasing number of studies in this area although most studies have used ad hoc addiction criteria and/or addiction scales adapted from other areas like gambling addiction and exercise addiction (Wan and Chiou 2006a, b; Smahel et al. 2008; Ng and Wiemer-Hastings 2005; Hussain and Griffiths 2009). There are also studies that have claimed that online gaming addiction may be addictive because of self-report accounts

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of very excessive use of up to 80 h a week (Griffiths et al. 2004a, b; Chappell et al. 2006). However, Griffiths (2005a) has argued that excessive activity and addictive activity are two very different things (although admittedly they do overlap). Furthermore, Griffiths has argued that the difference between healthy excessive enthusiasms and addictions are that healthy excessive enthusiasms add to a person's life whereas addictions take away from it.

Although all addictive behaviors have idiosyncratic differences, addictions commonly share many similarities. It has been also argued that video gaming and gambling have more inherent similarities than differences (i.e., conceptually, psychologically, behaviorally, etc.), and that (somewhat paradoxically) video game playing can be described as a non-financial form of gambling (Griffiths 1991, 2005b). This is one of the reasons why so many researchers investigating 'video game addiction' use screening instruments adapted from the gambling literature (Griffiths and Hunt 1998). Treatment practitioners also treat 'video game addiction' using the same treatment techniques as those used in gambling (Kuczmierczyk et al. 1987; Keepers 1990; Griffiths 2008).

It has been argued the only way of determining whether non-chemical (i.e., behavioral) addictions (such as online gaming addiction) are addictive in a non-metaphorical sense is to compare them against clinical criteria for other established drug-ingested addictions. However, most people researching in the field have failed to do this, which has perpetuated the scepticism shown in many quarters of the addiction research community. Griffiths (2005a) has operationally defined addictive behavior as any behavior that features what he believes are the six core components of addiction (i.e., salience, mood modification, tolerance, withdrawal symptoms, conflict and relapse). Griffiths argues that any behavior (e.g., online gaming) that fulfils these six criteria can be operationally defined as an addiction. In the case of online gaming addiction this would be:

- *Salience*—This occurs when online gaming becomes the most important activity in the person's life and dominates their thinking (preoccupations and cognitive distortions), feelings (cravings) and behavior (deterioration of socialized behavior). For instance, even if the person is not actually gaming online they will be thinking about the next time that they will be.
- *Mood modification*—This refers to the subjective experiences that people report as a consequence of engaging in online gaming and can be seen as a coping strategy (i.e. they experience an arousing "buzz" or a "high" or paradoxically tranquilizing feel of "escape" or "numbing").
- *Tolerance*—This is the process whereby increasing amounts of online gaming are required to achieve the former mood modifying effects. This basically means that for someone engaged in online gaming, they gradually build up the amount of the time they spend online engaged in the behavior.
- *Withdrawal symptoms*—These are the unpleasant feeling states and/or physical effects that occur when online gaming is discontinued or suddenly reduced (e.g., the shakes, moodiness, irritability, etc.).
- *Conflict*—This refers to the conflicts between the online gamer and those around them (interpersonal conflict), conflicts with other activities (job, schoolwork, social life, hobbies and interests) or from within the individual themselves (intrapsychic conflict and/or subjective feelings of loss of control) which are concerned with spending too much time engaged in online gaming.
- *Relapse*—This is the tendency for repeated reversions to earlier patterns of online gaming to recur and for even the most extreme patterns typical of the height of excessive online gaming be quickly restored after periods of abstinence or control.

Using these criteria, Lemmens, Valkenburg and Peter (2009) recently developed and validated a 21-item video game addiction scale that has robust psychometric properties (see Appendix 1 for the 21 items). This would seem to indicate that Griffiths' (2005a) core components of addiction have good validity. However, even if players meet these criteria, the context of their behaviour may still be overlooked. In addition to survey data, case studies of excessive video game players may provide better evidence of whether video game addiction exists by the fact that the data collected are usually more detailed. There are a case study accounts in the literature which appear to show that excessive video game players display many signs of addiction including those that play online (Wan and Chiou 2006a, b; Griffiths 2000; Allison et al. 2006; Block 2007). These case studies tend to show that the video games are used to counteract other deficiencies and underlying problems in the person's life (e.g. dysfunctional relationships, lack of friends, physical appearance, disability, lack of coping skills, etc.). However, it is clear from many of these case accounts that excess is usually pathologized without taking into account the person's life context in which the gaming takes place. Therefore, the following study uses data from two cases to highlight the role of context (i.e., how gaming fits into the person's life and how it impacts or does not impact on the individual, their relationships, and other activities in the lives of gamers). In short, it examines the extent to which context is important in distinguishing excessive gaming from addictive gaming.

Method

The following data relate to two individuals who first contacted the author in 2007 following widespread media coverage in the UK relating to a (then just published) study carried out by the author with colleagues in Germany examining online gaming and addiction (Grüsser et al. 2007). Most of the media coverage about this study featured the 'take home message' that one in nine gamers were addicted to playing online games (although the study itself actually reported that one in nine gamers displayed at least three signs of addictive behavior as measured using the addiction criteria of the *World Health Organization* which is something that is very different). The data presented below are in the form of two brief case study reports using material relating to the issue of gaming excess, addiction, and the context in which the gaming occurred. Both of the individuals described are given pseudonyms ('Dave' and 'Jeremy').

Results: Case Commentaries

Case 1: At the time of first contact with the author, Dave was 21-years old, unemployed, and single. His favourite online game was *World of Warcraft* and that since leaving university with a BSc Chemistry degree he had spent an average of 10 to 14 h a day primarily playing *World of Warcraft*. Dave contacted the author to question the validity of the author's study's findings based on his own experiences. Dave claimed that although he played online games excessively, he did not feel he was 'addicted' to online gaming as gaming was something that had a very positive influence in his life and that most of his social life was online and in-game. He also argued that he had no other commitments and that he had the time and the flexibility to play *World of Warcraft* for very long stretches of time. Having finished his degree, most of his university friends had got jobs elsewhere and he lost his immediate social circle in the space of a couple of months. As an online gamer

he met *"countless new friends"* online and he claimed playing *World of Warcraft* was good for his self-esteem. He claimed that online gaming provided a daily routine in his life when there was little else going on and that when playing online the time spent playing meant the days went quickly and enjoyably.

In short, Dave argued that there were no negative detrimental effects in his life even though he was a self-admitted excessive gamer. The author sent Dave some of his academic writings including a copy of the study that had been widely reported (Grüsser et al. 2007), a paper on the addiction components model (Griffiths 2005a), and a paper applying the addiction components model to online gaming (Chappell et al. 2006). Dave was very appreciative of the materials he was sent and carried on corresponding with the author for the next 10 months about various gaming issues providing insights into his own game playing and how these differed from that written academically. During this time, Dave eventually got a full-time job working for a pharmaceutical company and he also met a woman in-game who he subsequently dated. One of the most interesting observations that Dave made was that when he got his first ever full-time job and a girlfriend (at around the same time), he simply *"didn't have time to play [World of Warcraft] very much"*. He would play a few hours during the week (if that) with a couple of longer sessions at the weekend with his girlfriend. In essence, Dave's excessive gaming was symptomatic of the situation that he was in and he argued that his excessive playing was (for that period of his life) a very positive experience.

Case 2: At the time of first contact with the author, Jeremy was 38-years old, a financial accountant, had been married 13 years and had two children (two boys aged 9 years and 7 years). Jeremy contacted the author to ask if there was anybody he could contact as a result of his *"severe gaming addiction"*. Jeremy informed the author via email that over the previous 18 months, his online playing of *Everquest* and (subsequently *Everquest 2*) had gone from about three or 4 h of playing every evening to playing up to 14 h a day. He claimed that his relationship was breaking down, that he was spending little time with his children, and that he constantly rang in sick to work so that he could spend the day playing online games. When playing online he claimed that: *"life's worries go out of the window"* (i.e., that he did not have any worries when playing as the game provided an escape from life's pressures). He had tried to quit playing on a number of occasions but could not go more than a few days before he experienced *"an irresistible urge"* to play again—even when his wife threatened to leave him. He claimed that giving up online gaming was worse than giving up smoking and that he was *"extremely moody, anxious, depressed and irritable"* if he was unable to play online.

The author sent Jeremy some papers on excessive gaming and suggested that he get a referral from his doctor to see a clinical psychologist. He was also told that there were self-help groups online (such as Online Gamers Anonymous; http://www.olganon.org/) and that there were some specialized clinics he could perhaps contact (such as the *Smith and Jones Clinic* in Amsterdam; http://www.smithandjones.nl/) that specialized in online gaming addictions[15]. Over the next few months, things got even worse for Jeremy. He was fired from his job for being too unreliable and generally unproductive as a direct result of his excessive gaming (although his employers were totally unaware of his gaming behavior). As a result of losing his job, his wife also left him. This led to Jeremy *"playing all day, every day"*. It was a vicious circle in that his excessive online gaming was causing all his problems yet the only way he felt he could alleviate his mood state and forget about all of life's stresses was to play online games. Thankfully, Jeremy has since been referred to a clinical psychologist and the last correspondence with Jeremy suggests things were getting a little better although he was still unemployed and there had been no reconciliation with his wife.

Discussion

These two case studies raise some very interesting questions about the relationship between behavioral excess and addiction. Both of these gamers claimed to be playing for up to 14 h a day yet it could be argued that although they were behaviorally identical in terms of their game playing, they were very different in terms of psychological motivation and the meaning and experience of gaming within their lives. Jeremy appeared to be addicted to online games whereas Dave's excessive online gaming appeared to have a very positive functional use in his life. In both cases the online gaming appeared to be symptomatic of what was going on in their lives but in Dave's case the excessive gaming was entirely positive whereas in Jeremy's case it was entirely negative except for the fact that while he was actually gaming he could forget about everything else around him.

By applying Griffiths' (2005a) core components of addiction to each of the two case studies it would also appear that Jeremy was addicted but that Dave was not even though the game play was virtually identical. For Jeremy, online gaming was the most important thing in his life; he used gaming as a way of consistent modifying his mood (i.e., to escape other things in his life); he built up tolerance to gaming over time (escalating his gaming from three to 4 h a day up to 14 h a day); he suffered withdrawal effects if unable to play online (e.g., feelings of intense moodiness, anxiety, depression, and irritability); complete conflict in his life as a result of playing online games excessively (losing his family and job because he just could not stop playing); and he experienced relapse as he could not go more than a few days without an irresistible urge to play again. In complete contrast, Dave's excessive playing appeared to be symptomatic of the fact that there was very little in his life and that playing excessively helped him structure his empty days. His gaming was essentially a social activity as has been identified elsewhere in the literature (Griffiths et al. 2004a, b; Chen et al. 2006; Wang and Wang 2008), and he also met his girlfriend online and in-game, something that a recent study found occurring among one in ten gamers (Cole and Griffiths 2007).

Although it could be argued there are elements of salience, mood modification, and tolerance in Dave's gaming behavior, he did not suffer from any withdrawal symptoms or relapse when unable to play, and perhaps most importantly he did not suffer any conflict or negative problems in his life as a result of his excessive gaming, In short, he was not addicted. When other things came along in his life (a job, a girlfriend) the playing all but stopped except for a small amount at weekends. Dave did not need to game online when there were other things taking up time in his life. Gaming not only helped structure his day but it made the days go quicker—which for someone who had very little else in his life at the time was seen as a benefit. The idea of time loss being beneficial to many gamers has also been reported in the literature (Wood et al. 2007). Time loss is another game-related consequence—like gaming excess more generally—that appears to be pathologized by those in the gaming research field and seen as inherently negative. Case studies like these helps academic researchers see gaming from the gamers' perspectives rather than the imposition of the researcher's view on the gaming behavior reported.

These two case studies highlight the importance of context in the life of a gamer. Excessive gaming—even at up to 14 h a day—does not mean that a person is addicted. From the data presented here examining just two case studies, it could perhaps be argued gaming addicts play excessively but not all excessive gamers are addicted. The real issue is to what extent excessive gaming impacts negatively on other areas of the gamers' lives. In this author's view, an activity cannot be described as an addiction if there are few (or no) negative consequences. This study also suggests that any new

diagnostic and measurement criteria for video game addiction need to consider context of the behavior.

Appendix 1: Game Addiction Scale Items (from Lemmens et al. 2009)

How often in the last 6 months…

(Salience)
Did you think about playing a game all day long?
Did you spend much free time on games?
Have you felt addicted to a game?
(Tolerance)
Did you play longer than intended?
Did you spend increasing amounts of time on games?
Were you unable to stop once you started playing?
(Mood modification)
Did you play games to forget about real life?
Have you played games to release stress?
Have you played games to feel better?
(Relapse)
Were you unable to reduce your game time?
Have others unsuccessfully tried to reduce your game use?
Have you failed when trying to reduce game time?
(Withdrawal)
Have you felt bad when you were unable to play?
Have you become angry when unable to play?
Have you become stressed when unable to play?
(Conflict)
Did you have fights with others (e.g., family, friends) over your time spent on games?
Have you neglected others (e.g., family, friends) because you were playing games?
Have you lied about time spent on games?
(Problems)
Has your time on games caused sleep deprivation?
Have you neglected other important activities (e.g., school, work, sports) to play games?
Did you feel bad after playing for a long time?

Note: Responses are rated on a 5-point scale: 1 *(never)*, 2 *(rarely)*, 3 *(sometimes)*, 4 *(often)*, 5 *(very often)*.

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