Examining the Role of Individuals’ Need for Online Social Interactions and Interpersonal Incompetence in Game Addiction

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Abstract

Because online game addiction has become one of the serious social computing issues related to public health, there is an unprecedented need to explore and understand online game addiction from a psychosocial perspective. Extant studies have empirically tested the effects of and the relationship among prominent psychological distresses such as depression, loneliness and aggression on game addiction, but few studies have explored the relationships among individuals’ need for online social interaction, interpersonal incompetence and self-regulation (control) and their effects on game addiction. Additionally, the mediating role of individuals’ need for online social interaction in online game addiction has neither been proposed nor empirically tested. This study examines addiction through the lens of individuals’ need for online social interaction, interpersonal incompetence, self-regulation and loneliness as a psychological distress. More specifically, the purpose of this study is to understand the mediation effect of individuals’ need for online social interaction on game addiction.

Keywords

Online game addiction, loneliness, social incompetence, online social interaction, self-regulation, MMORPGs.

Introduction

Online gaming draws an increasing amounts of time, money, and energy from the game players, which in turn may bring about negative life outcomes such as addictive gaming behaviors leading to poor academic and job performance, decline in health conditions as a result of sleep deprivation and eating disorder (Toker & Baturay, 2016). Digital gamers may indulge impulsively, isolating themselves from other forms of social interaction, and orient their goals almost entirely on in-game or virtual achievements rather than broader and real life events. As of the first quarter of 2017, the number of online gamers in the US has reached 53.6 million (Statista, 2017a). Likewise, it is also projected that by 2020 the number of online gamers in the US will have reached to 57.4 million. Consumers are spending on online games and gaming consoles at an astounding rate. As of December 2016, the overall consumer spending on gaming content, gaming hardware and accessories was $30.4 billion. It has been reported that 33% of the gamers massively play multiplayer online games (Statista, 2016b). Likewise, as of December 2016 the average amount of weekly time spent by gamers on playing games on their gaming devices in the US was 14 hours (Statista, 2017c).

Online game addiction has become a social issue of late related to public health. Many previous studies reported that game addicts find it difficult to manage their daily life due to their psychological and social problems (Griffiths & Meredith, 2009; Kuss & Griffiths, 2012; Liu & Peng, 2009). Such problems seem to be very serious for young gamers, which has drawn the attention of policymakers (APA, 2013; Griffiths et al, 2004). Multiplayer online role-playing games (MMORPGs) may be more problematic for at-risk individuals than other types of game (Chappell et al, 2006; Griffiths, 2009; Khan & Kanof, 2007; Lee et al., 2006). This is because intense involvement in MMORPGs demands great time investment (National Research Council, 1999; Ng & Wiemer-Hastings, 2005) and potentially brings about negative outcomes in daily life for certain individuals (Billieux et al., 2011; Chuang, 2006; Smahel et al, 2008).
This study examines online gaming addiction through the lens of individuals’ need for online social interaction, interpersonal incompetence, self-regulation and loneliness as a psychological distress. More specifically, we examine the mediation effect of individuals’ need for online social interaction on game addiction. We expect that the results of the study will provide new insights for policymakers in dealing with the online game addiction issues.

**Background Theory**

**Self-determination Theory**

According to self-determination theory, well-being of individuals and their abilities to regulate themselves are determined by certain basic psychological needs being satisfied. These psychological needs include the need to relate, the need for competency, and the need for autonomy. When individuals are able to satisfy these basic psychological needs in their everyday lives, they will experience high degree of wellbeing. However, if these basic psychological needs are not met, they become motivated to seek another source of wellbeing elsewhere to rectify the situation (Ryan and Deci, 2000). Consequently, individuals are more inclined to perform activities which could fulfill these unmet needs (Ryan et al, 2009). In our study, we introduce need for online interaction, interpersonal incompetence, and self-regulation as the theory constructs parallel to the constructs of the theory of self-determination, and expand it by introducing loneliness as a psychological distress. In doing so, we argue that when lonely people develop an intrinsic goal to indulge into online social interaction and to become socially competent, they internalize its value and internally regulate their gaming activity by initiating and continuing it, which gradually turns into addictive behavior.

**Research Model and Hypotheses**

Drawing upon the self-determination theory as theoretical background, this study examines the relationships among individuals' need for online social interaction, interpersonal incompetence and self-regulation and their effects on game addiction. Figure 1 depicts the research model and proposed hypotheses.

**Loneliness and need for online social interaction**

Loneliness refers to an unhappy and disturbing sentiment due to the absence of a companion (Peplau & Perlman, 1982). Loneliness is an undesirable feeling associated with negative affect (Margalit, 1994).
Feelings of loneliness may result from an unfulfilled desire to have friends, an understanding of the gap between an actual and desired social status, and a lack of affective bonding (Asher et al, 1990; Peplau & Perlman, 1982; Perlman & Peplau, 1982; Weiss, 1973). Lonely have poor social skills (Vitkus & Horowitz, 1987), have difficulty making friends, initiating social activity, and participating in groups (Horowitz & de Sales French, 1979), are less likely to be intimate and self-disclose (Berg & Peplau, 1982; Williams & Solano, 1983), and have low self-esteem (Burger & Lang, 1997).

Individuals who suffer from psychological issues such as loneliness may lack social skills and, therefore may have a preference for online social interaction. To fulfill their needs that are not met in real life, or to escape from negative moods, they are more likely to play online games (Caplan, 2003). As such, they are likely to feel more confident with the online environment (Caplan, 2003). Consequently, emotionally susceptible individuals may be deeply immersed in digital games rather than having face-to-face contact with people as a way to fulfill their needs that cannot be met in the real world (Liu & Peng, 2009). Thus, we propose that:

Hypothesis 1. Loneliness is positively associated with individuals’ need for online social interaction.

Need for online social interaction and game addiction

Social interaction my take a different form and alter the social exchanges in ways that may be particularly attractive to those who are lonely. Online social interaction can become a substitute for real-life social interaction (Hussain & Griffiths, 2009) because of the online anonymity and lack of physical presence which allow users to control social interaction and choose not only with whom and when to communicate, but also gives them enough time to compose messages. Online social interaction facilitates disinhibition, self-disclosure, intimacy, and enhanced self-presentation, as well as provides an arena for the practice and development of social skills (Morahan-Martin & Schumacher, 2000). When one’s needs for virtual social interactions and escaping real-life interactions are high, he or she can also engage in excessive game playing which predicts addiction (Lo et al, 2007). Indeed, it has been shown that at least the need for escapism, and need for advancement predict online game addiction (Yee, 2006). It follows from extant empirical evidence that people, who are low in interpersonal competence, social skills in real life, are more prone to online game addiction (Caplan, 2003; Davis, 2001). Furthermore, it follows that those who are more isolated, depressed, or self-defensive are more engaged in the excessive use of online game by trying to meet an unfulfilled need for face-to-face social interaction with an alternative - playing games online.

Self-determination theory proposes that people who have trouble meeting their need in real life will turn to somewhere else to fulfill their need. Online games provide the opportunity for players to fulfill the need to relate. Once gamers meet their psychological need with online game, it reinforces their motivation to play more and it diminishes their need to seek fulfillment outside the game. Thus, we posit that,

Hypothesis 2. Need for online social interaction is positively associated with game addiction.

Social incompetence and need for online social interactions

Self-evaluation or perceptions of social incompetence may lead lonely people to seek out a safer and less threatening alternative to face to face interaction. There are several characteristics of online communicative environments such as chat rooms that differ from face to face interaction such that chat rooms become especially appealing to people trying to cope with loneliness, depression, and low self-esteem (Barnes, 2001; Turkle, 1995; Wallace, 1999; Walther, 1996). For instance, an online chat room entails greater anonymity, greater control over self-presentation, more intense and intimate self-disclosure, less perceived social risk, and less social responsibility toward others and the interaction than in traditional face to face communication (Morahan-Martin & Schumacher, 2000; Turkle, 1995; Wallace, 1999; Walther, 1996). Thus, a need for online social interaction may develop from one’s perceptions that online communicative environment is relatively easier, less risky, and more exciting than face to face communication. An online game itself may not make lonely people addicted to it; rather, their preference for online social interaction as a result of their poor face-to-face social skills (McKenna et al, 2002), attracts them to pursue online social interaction embedded in digital games. The argument advanced in the current article goes further to suggest that psychosocial distress leads some individuals to develop a need for online social interaction, which then sets the stage for problematic gaming. Thus, we propose that:
Hypothesis 3. Interpersonal incompetence is positively associated with need for online social interaction.
Hypothesis 4. Interpersonal incompetence is positively associated with game addiction.

**Relationship between self-control and gaming addiction**

The self-regulatory or control mechanism that determines an individual's level of self-control over behavior could also be relevant to game addiction. Low self-control is characterized by behaviors including impulsiveness, enjoying risk-taking, addiction, preferring physical activities to mental ones, overeating, preferring simple tasks to complex ones, and being self-centered and short-tempered (Kim et al, 2008; Niemz et al., 2005; Trimmel & Kopke, 2000). The behaviors of individuals who have low levels of self-control are governed primarily by immediate gratification and short-term goals (Gottfredson & Hirschi, 1990). In contrast, a high level of self-control is characterized by the consideration of the long-term results rather than a focus on immediate temptations (Baumeister & Heatherton, 1996). It is also suggested that when individuals use the Internet to cope with loneliness and everyday stress, this increases the likelihood of problems with self-control (Larose et al., 2003). Likewise, previous studies have found that people with greater self-control are able to control their use of the Internet to a reasonable degree, thereby, preventing the addictive behaviors (Niemz et al., 2005; Oh, 2003). Although previous studies provide evidence for the link between negative feelings, low self-control and general or Internet addiction, only a small number of studies address the relationship between self-control and individuals' need for online social interaction.

Although all individuals have some capacity for self-control, some are more prone to losing self-control than others (Baumeister & Heatherton, 1996). We argue that individuals' need for online interaction as result of interpersonal incompetence arising from psychological distress may result in low self-control, which in turn, may make them more prone to game addiction. Thus, we posit that:

Hypothesis 5. Self-regulation (control) is negatively associated with need for online social interaction.
Hypothesis 6. Self-regulation (control) is negatively associated with game addiction.

**Research Design**

This study will use a quantitative survey assessment to test the hypotheses. The survey will use previously-validated scales to measure the study constructs and will be pilot-tested before launch. The survey will be administered to the sample of social media users who use different social media platforms such as Facebook, Twitter and Instagram. Different age ranges, gender, education level and income will make the results more generalizable and allow us to compare different age groups in their location-tagging behavior. Structural equation modeling will be used to analyze the relationships between the study constructs, and modification indices will be used to achieve a parsimonious model with an overall good fit.

**Expected Contribution**

This study will provide several theoretical and practical contributions to the area of online game addiction studies. From a theoretical perspective, this study will show the key role of interpersonal incompetence, need for online social interaction and self-regulation (control) in predicting game addiction, thereby making significant contribution to the body of the literature. This study will also exhibit the mediating role that people's need for online social interaction plays between psychological distress i.e. loneliness and game addiction. From a practical perspective, this study will provide hints on some relevant guidelines for policymakers and social activists allowing them to consider social and cultural factors of game addiction to be able to handle and address the addiction problem.

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