

Brief report: The influence of dissociative experiences and alcohol/drugs dependence on Internet addiction

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Abstract

The main aim of this study is to investigate the influence of dissociative experiences and alcohol/drugs dependence on Internet addiction. From a clinical point of view Internet addiction, an excessive or poorly controlled preoccupation, urges, and/or behaviors regarding Internet use, lead to emotional and social problems in several life domains. Moreover, the increased prevalence of Internet addiction among adolescents and young adults is cause of concerns. Data was collected on 441 undergraduate students (285 female), aging from 18 to 36, using an assessment self-reporting set consisting of the Young's Internet Addiction Test, the Leeds Dependence Questionnaire and the Dissociative Experience Scale. Results converging for the three psychological phenomena involved are interrelated, corroborating the hypothesis of the search for an altered state of consciousness as their common underlying mechanism. Findings show that the tendency to escape from reality, through dissociation and substance abuse, are risk factors for Internet addiction in youngsters. The implications of these results are discussed in a preventive and clinical perspective.

Introduction

Internet Addiction (IA) can be considered as a form of technological addiction (Griffiths, 1996), which is operationally defined as behavioral addiction involving excessive human-machine interaction (Pontes et al., 2015). In this theoretical framework, IA features six core components: salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005). Behavioral addictions have now recently received official recognition in the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition; APA, 2013). Recently, the American Psychology Association included tentative criteria for IA, but has limited them to internet gaming problems under the diagnostic category of Internet Gaming Disorder. Although empirical research over the last decade has significantly increased, the classification of IA is still controversial, as no gold standard of IA assessment has emerged (Kuss et al., 2014). Despite this, from a clinical point of view IA has been characterized by excessive or poorly controlled preoccupation, urges, and/or behaviors regarding Internet use that lead to impairment or distress in several life domains (Weinstein et al., 2014). Furthermore, IA has often been referred to as the failure or lack of ability of a person to manage their use of the Internet, and that consequently triggers emotional and social difficulties in individual and professional life (Pontes et al. 2015; Young, 1996; Young & Rogers 1998). In a recent review study, Cheng and Li (2014) conducted a meta-analysis in order to estimate prevalence rates of IA across several countries. The results showed a global prevalence of IA of around 6%. Actually, prevalence rates among nationally representative samples across many Western and Eastern countries vary greatly (from 1% to 18.7%), most likely reflecting various methodological and conceptual limitations (Pontes et al., 2015). Nevertheless, the prevalence of IA among adolescents and young adults is cause of concerns as it is well known that IA phenomenon induces unhealthy psychological and social conditions among users (Stavropoulos et al., 2013; Yao & Zhong, 2014; Smahel et al., 2012). Specifically, about data on Italian population, a previous study (Bruno et al., 2014) assessed the prevalence of IA in a sample of 1,035 high school students. The prevalence of pathological Internet use was 3.9 %, with males showing a higher likelihood of developing pathological Internet use.

Recently, studies have focused their attention on IA in young people (e.g. Kuss et al., 2013) because youth contend with strong psychological and developmental dynamics that may find a sort of escape route in the alternate reality of cyberspace (Suler, 1999). Along this line, Suler (1999) identified the search for an altered state of consciousness as a basic need, arguing that human beings have an inherent desire to alter their consciousness in order to flee from everyday difficulties. In

addition, Steiner (2003) convincingly argued that some individuals take refuge from the world of real relationships establishing for themselves “psychic retreats”. Internet could function as a mental retreat, in other words as a pathological organizations of defenses. Understanding the underlying defensive needs involved in young people’s developmental problems could clarify the psychological patterns, which may lead to a pathological use of the Internet in adult life.

Another way to achieve an altered state of consciousness is using psychoactive substances. The fact that adolescents are prone to making use of various kinds of drugs is a known worldwide phenomenon (Wheeler & Frankland, 2015). Several studies (Ko et al., 2008; Lam et al., 2009; Rücker et al., 2015) have recently shown that the use of drugs in youth is often associated with an IA, corroborating the hypothesis whereby the search for an altered state of consciousness might be its underlying psychological mechanism. Scholars have reported that the risk of IA is associated with an increased prevalence of substance dependence (Bakken et al., 2009; Padilla-Walker et al., 2010). Moreover, Lee and colleagues (2013) concluded that multi-substance use strongly predicts a high risk for IA. Those findings suggest that chemical and behavioral addictions may share similar psychological characteristics (Lee et al., 2013).

A number of psychological factors such as impulsivity (Lin et al., 2011), neuroticism (Kuss et al., 2013), loneliness (Whang et al., 2013), alexithymia (Scimeca et al., 2014), disease conviction (Scimeca et al., 2017a) and sexual behavior (Scimeca et al., 2017b) were found to be associated with IA. However, up until now, the role that dissociation might play in IA is less known (Berardis et al., 2008; Lee et al., 2015). Dissociation includes a wide variety of forms, ranging from common experiences among the general population to more pathological forms (Schauer & Elbert, 2010). A distinctive trait of dissociative experiences is the search for a different state of consciousness in order to preserve the ordinary state from pain and suffering (Steinberg & Schnall, 2001; Banos et al., 1999; Merckelbach & Muris, 2001). The key role of dissociation in the psychopathology of addiction has been confirmed (Canan et al., 2012; Karadağ et al., 2015). Specifically, Craparo and co-workers (2014) reported that addictive behaviors have a dissociative nature that allows individuals to manage negative and unregulated emotions, suggesting that dissociation is a predictor of addiction. Moreover, Bernardi and Pallanti (2009) reported that dissociative symptoms were related to the severity of problematic Internet use, and suggested that detachment from reality was a key trait of Internet-related problems. In fact, a sense of detachment is a distinctive feature of dissociative experiences (Lee et al., 2016).

For the aforementioned reasons, the present study aims to investigate the conjunctive influence of dissociation and drug use on IA, as to provide further evidence that the desire to alter one’s state of consciousness might be an important mechanism underlying this form of behavioral addiction.

Materials and Methods

Procedure and participants

A convenience sample was selected from the University of Bologna: four hundred and forty-one undergraduate students (285 female, 156 male), aging from 18 to 36 (mean age = 21.23, SD = 2.22) participated in the survey. No payment or course credits were given in exchange for participation. The procedure used satisfied the ethical requirements defined by the APA.

Measures

Internet addiction was assessed using the Young's Internet Addiction Test (IAT; Young, 1996) which quantifies internet addiction on a mild, moderate and severe scale on a 5-point Likert scale (1, never; 2, rarely; 3, sometimes; 4, frequently; 5, always) with higher scores representing greater Internet addiction. Following Berardis et al. (2009) we defined the Internet addiction group as $IAT \geq 50$ (Cronbach's $\alpha = .91$).

Alcohol/drugs dependence were assessed using the Leeds Dependence Questionnaire (LDQ; Raistrick et al., 1994) which measures the severity of alcohol and opiate use again on a mild, moderate and severe scale (Cronbach's $\alpha = .88$).

Dissociation was assessed using the Dissociative Experience Scale (DES; Bernstein & Putnam, 1986; Fabbri Bombi et al., 1996) which contains a variety of dissociative experiences, many of which are normal experiences (Cronbach's $\alpha = .92$).

Statistical Analysis

We performed ANOVA analyses between low and high IA groups where LDQ and DES scores were entered as dependent variables. Moreover, we performed a Pearson correlation among all three questionnaires scores in order to evaluate their relationships. Lastly, we carried out a linear regression with IAT scores as a dependent variable and LDQ and DES scores as independent variables to test whether, and to what degree, dissociation and substance dependence are predictors of IA.

Results

Three hundred and ninety-two participants scored below 50 points at the IAT and were included in the low IA category; the remaining 44 volunteers formed the high IA group. ANOVA analyses showed that subjects affected by IA have higher

levels of dissociation and are more frequently engaged in the use of psychotropic substances than those who are less prone to IA (see Table 1).

Table 1.

Mean and Standard Deviation of both Low and High Internet Addiction group for Leeds Dependence Questionnaire (LDQ) and Dissociative Experience Scale (DES) scores.

	<i>Low IA (N. 392)</i>	<i>High IA (N = 44)</i>	<i>F</i>
LDQ	12.39 (SD 3.89)	14.81 (SD = 6.44)	12.57***
DES	1.91 (SD 1.24)	3.12 (SD = 1.54)	36.35***

** p <.01

Correlation matrix (see Table 2) indicated a significant correlation, for all pairs of combinations among the three variables, showing that IA, dissociation, and alcohol/drugs dependence are positively related.

Table 2.

Correlation matrix between Young's Internet Addiction Test (IAT), Leeds Dependence Questionnaire (LDQ), and Dissociative Experience Scale (DES).

	<i>IAT</i>	<i>LDQ</i>	<i>DES</i>
IAT	1	.24**	.38**
LDQ	-	1	.29**
DES	-	-	1

** p <.01

Linear regression reached significance and explained 16% of variance: $F(2, 418) = 38.96, p < .001$, with a significant positive prediction of DES ($\beta = .34, p < .001$) and LDQ ($\beta = .13, p < .01$), showing that high levels of dissociation and substance abuse might lead subjects to IA.

Discussion

The aim of this preliminary study was to investigate the relationships between Internet Addiction, alcohol/drugs dependence, and dissociative experiences. Our findings have shown that dissociation and substance abuse were risk factors for IA.

The statistical test (ANOVA) showed that subjects affected by IA have higher levels of dissociation and are more frequently involved in the use of psychotropic substances than those who are less prone to IA. Our results agreed with a previous study on 312 nonclinical undergraduate (De Berardis et al., 2009) showing that individuals with IA experienced more dissociative symptoms than non-addicts students. Moreover, Canan et al. (2012), using DES and IAS instruments, revealed a positive relationship between dissociative symptoms and problematic Internet use. Likewise, our correlation analyses revealed a significant link between IA, alcohol/drug dependence, and dissociative experiences.

According with previous studies (De Berardis et al., 2008; Suler, 1999; Shepherd et al., 2005; Banos et al., 1999), our findings confirm that the search for an altered state of consciousness could be the common factor linking all three psychological phenomena. Likewise, one contribution of this preliminary study resides to propose an empirical evidence of the “crossing” between the escape-from-reality behaviors.

The significant positive correlation among the three considered variables suggests that young adults whose psychological need is to detach from everyday life tend to spread such behavior across several domains, in order to cover as much of their entire life as possible. This spreading behavior might be the reason why, in adult life, an addiction such as IA could become the central focus in people’s lives (Kandell, 1998). However, only a longitudinal study could test this hypothesis.

Moreover, our data concluded that the tendency to escape from reality through natural (dissociation) or chemical (substance abuse) means predicts a high risk for IA. Lee and colleagues (2013) reach the same conclusions namely that substance use strongly precedes the IA, and that chemical and behavioral addictions may share similar underlying psychological needs.

According to Steiner (2003), IA was conceived as a misuse of psychic retreat: the total absorption with technologies could serve to escape from painful or intolerable states of mind, and to protect the individual from disruptive feelings through the disconnection of self-states representations. Therefore, in clinical work with individuals suffering from IA understanding the use of psychic retreats can help both diagnosis and intervention (Schimmenti & Caretti, 2010).

This exploratory study have several limitations. First, the sample of participants who volunteered for the present study was non-clinical. Therefore, studies on specific clinical samples are needed to test the hypothesis advanced herein on a pathological level. Furthermore, all the data collected was obtained by self-report, questionnaires, which are subject to advantages, but also to several limitations, well documented in the literature (Paulhus & Vazire, 2007). Hence, studies measuring IA, drug abuse and dissociation with tools other than self-report questionnaires are needed. Finally, as a suggestion for future research, it could be using a structural equation modeling (SEM) instead of regression analysis. Indeed, as mentioned by Gefen et al. (2011), SEM has potential advantages over linear regression models, as SEM simultaneously assesses the measurement model and the hypothesized causal paths, controlling for measurement error.

Nevertheless, future research on these psychological mechanisms have to integrating empirical investigation and clinical experience. This is crucial for the prevention, assessment, diagnosis and interventions of a wide variety of complicated human problems, such as dissociative experiences and addictive behaviors.

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