



Is Sensation Seeking a correlate of excessive behaviors and behavioral addictions? A detailed examination of patients with Gambling Disorder and Internet Addiction



K.W. Müller*, M. Dreier, M.E. Beutel, K. Wölfling

Department of Psychosomatic Medicine and Psychotherapy, Outpatient Clinic for Behavioural Addictions, University Medical Centre, Johannes Gutenberg University Mainz, Untere Zahlbacher Straße 8, 55131 Mainz, Germany

ARTICLE INFO

Article history:

Received 12 October 2015

Received in revised form

2 June 2016

Accepted 5 June 2016

Available online 11 June 2016

Keywords:

Behavioral addictions

Gambling Disorder

Internet Addiction

Internet Gaming Disorder

Sensation Seeking

Subtypes of addictive behavior

ABSTRACT

Sensation Seeking has repeatedly been related to substance use. Also, its role as a correlate of Gambling Disorder has been discussed although research has led to heterogeneous results. Likewise, first studies on Internet Addiction have indicated increased Sensation Seeking, to some extent contradicting clinical impression of patients suffering from internet addiction. We assessed Sensation Seeking in a clinical sample of $n=251$ patients with Gambling Disorder, $n=243$ patients with internet addiction, $n=103$ clients with excessive but not addictive internet use, and $n=142$ healthy controls. The clinical groups were further sub-divided according to the preferred type of addictive behavior (slot-machine gambling vs. high arousal gambling activities and internet gaming disorder vs. other internet-related addictive behaviors). Decreased scores in some subscales of Sensation Seeking were found among male patients compared to healthy controls with no differences between patients with Gambling Disorder and Internet Addiction. The type of preferred gambling or online activity was not related to differences in Sensation Seeking. Previous findings indicating only small associations between Sensation Seeking and Gambling Disorder were confirmed. Regarding Internet Addiction our results contradict findings from non-clinical samples. Sensation Seeking might be relevant in initiating contact to the health care system.

© 2016 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Thinking about individuals feverishly engaging in gambling or playing exciting video games almost automatically evokes the notion of them as sensation seekers. Indeed, the construct of Sensation Seeking (SS) has repeatedly been discussed as a correlate of performing arousing – including risk-taking – activities (Zuckerman, 1994). Also, several studies have found associations to the use and abuse of psychoactive substances (Jaffe and Archer, 1987; Hittner and Swickert, 2006; Zhornitsky et al., 2012).

Gambling Disorder (GD) has recently been included as a non-substance related addiction in the DSM-5 (APA, 2013). Likewise Internet Addiction (IA) resp. Internet Gaming Disorder (IGD) has been subsumed in the appendix of the DSM-5 as a condition warranting further research and there is growing evidence on parallels between IGD and GD (Frascella et al., 2010; Ko et al.,

2011). For non-substance related addictions, the role of SS has been investigated primarily for GD. While it has theoretically been assumed that SS has to be perceived as a correlate of GD and other non-substance related addictions (Lejoyeux et al., 2000; Zuckerman, 2005), empirical evidence is inconsistent. A recent meta-analysis (MacLaren et al., 2011) found a mean weighted effect of $d=.04$ and concluded that there were no signs of higher SS in GD. Looking at the literature, it becomes evident that there are quite mixed findings. Some studies reported elevated scores at least in some subscales of SS (Blaszczynski et al., 1986; Kuley and Jacobs, 1988; Breen and Zuckerman, 1999; Powell and Hardoon, 1999), but also no or negative relationships have been found (Allcock and Grace, 1988; Coventry and Brown, 1993; Bonnaire et al., 2004; Saez-Abad and Bertolin-Guillen, 2008; Fortune and Goodie, 2010). Several explanations for these inconsistencies have been proposed: For example, high SS has to be regarded as a predictor rather for the interest in gambling activities than in its pathological use (Powell and Hardoon, 1999). Since empirical data are indicating that the relationships between SS and GD are moderated by third variables (e.g. gender, type of preferred gambling activity) it has also been assumed that associations exist, but only among subgroups of GD (McDaniel and Zuckerman, 2003; Gupta

* Corresponding author.

E-mail addresses: muellka@uni-mainz.de (K.W. Müller), Michael.dreier@uni-mainz.de (M. Dreier), Manfred.beutel@unimedizin-mainz.de (M.E. Beutel), woeffling@uni-mainz.de (K. Wölfling).

et al., 2006). GD is regarded as a heterogeneous term depending on the preferred type of gambling activity (Boldero et al., 2010; Milosevic and Ledgerwood, 2010; Studer et al., 2015). Thus, it is possible that for some GD-types heightened SS might be a correlate (e.g. in patients preferring high-arousal gambling activities) while it is not for others (e.g. slot-machine players). However, this hypothesis has not yet been investigated systematically (McDaniel and Zuckerman, 2003; Milosevic and Ledgerwood, 2010; Blaszczynski and Nower, 2002). Meanwhile, the failure of demonstrating connections between SS and GD has led to a conceptual criticism on this construct (Hammelstein, 2004).

In contrast, evidence on SS in IA seems to be more obvious. Yet, these findings have to be regarded as preliminary, since most of the research reveals some methodological issues, for example by including selective or convenience samples. Guo et al. (2009) demonstrated in an investigation on 651 students, that those with IA were characterized by elevated SS, especially regarding Disinhibition. This finding was confirmed (Lin and Tsai, 2002) in a study on 1000 Asian students. Likewise higher scores in Boredom Susceptibility were reported in 307 Asian students (Shi et al., 2005). One of the few European studies on a clinical sample of 50 treatment seekers also reported elevated SS (Floros et al., 2014).

Only few studies are available that differentiate between specific sub-types of IA. Regarding IGD, both, elevated (Mehroof and Griffiths, 2010) and decreased (Collins et al., 2012) SS among students was found. From a clinical perspective, patients with IA have been described in terms of high harm avoidance, shyness, and social insecurity (Ko et al., 2006; Ha et al., 2006; Müller et al., 2014a; Walther et al., 2012), as well as introversion and low openness (Müller et al., 2014b). These characteristics seem to poorly fit findings of IA-patients as sensation seekers. Thus, despite most of the studies have found some associations between higher SS and IA, more detailed research is needed. Especially studies in clinical samples are under-represented. Secondly, a differentiation of different IA-types has not been realized so far.

1.1. Research questions

The primary goal of this study is to investigate if SS has to be perceived as a correlate of GD and IA. To that purpose two clinical samples meeting diagnostic criteria for either GD or IA were recruited and compared to healthy controls. Considering the mixed results on SS in GD, we expect to find no or only moderate relations. For IA, we expect to find higher SS – at least in some subscales – although clinical experience indicates converse expectations. Since gender-specific differences in SS (Arnett, 1994) and in the association between SS and substance-use (Scourfield et al., 1996) have been reported before, we investigated SS separately for male and female participants.

As an alternative hypothesis, we also explored if SS rather is related to general engagement in gambling activities or internet use, apart from any addictive use. Therefore, we included frequency of gambling participation and extent of being online as correlates of SS and expect that both variables will be related to higher SS.

A second aim was to investigate moderating effects. Based on previous considerations (Milosevic and Ledgerwood, 2010), we took into consideration the heterogeneity of GD and IA by dividing both clinical entities according to their specific sub-type. According to a proposal by Cocco et al. (1995) within the framework of the Reversal Theory, the GD-group was divided in patients additively using slot machines vs. patients additively engaging in sport betting and casino games. This approach is guided by the hypothesis that slot machine gamblers rather try to avoid negative mood states than to seek for arousal while striving for stimulation is a driving force behind participating in sport betting and casino

games (Cocco et al., 1995). Likewise, the IA-group was split into patients suffering from IGD vs. addictive use of other internet applications (e.g. social networking sites).

2. Methods

2.1. Recruitment of participants

Within 2010 and 2014 consecutive treatment seekers from an outpatient clinic were informed about the study's background and asked to provide written informed consent. The study was in accordance with the Declaration of Helsinki and approved by the local ethical committee.

From the clinical sample we extracted two groups: Firstly, patients meeting criteria for GD (GD-group; $n=251$) and patients meeting criteria for IA (IA-group; $n=243$). The GD-group was defined by meeting criteria of GD according to DSM-IV that were assessed by (1) a clinical interview (German translation of a clinical GD-interview posed by Grant et al. (2004)) and (2) a self-report measure for GD (Berlin Inventory for Gambling, screening form; Grüsser et al., 2006). Additionally, the type of problematically used gambling activity was assessed by means of clinical interviews, in which patients were asked to name the type of gambling that was perceived as leading to symptoms of GD. GD-patients were excluded that additionally met criteria for IA. The IA-group was defined by meeting criteria for IA according to a standardized clinical interview (Checklist for the Assessment of Internet and Computer game Addiction; Wölfling et al., 2012) and a self-report measure (Scale for the Assessment of Internet and Computer game Addiction; Müller et al., 2014a,b). Additionally, the type of online activity performed problematically was assessed. Patients also meeting criteria for GD were excluded.

In order to generate a control group for IA, consisting of individuals displaying high average use of the internet, we also included subjects introducing because of suspected IA without meeting full criteria for IA according to AICA-C (Wölfling et al., 2012) and AICA-S (Müller et al., 2014a,b; Internet Addiction Controls; IAC-group, $n=103$).

We also defined a set of general inclusion criteria for the groups: being under the age of 16 years and severe comorbidity (psychotic disorders, severe depression, substance-use disorders, excluding nicotine dependence). From all subjects eligible for the study, $n=66$ (22.1%) patients with GD were excluded because of the exclusion criteria and likewise $n=87$ (27.8%) patients with IA were excluded as well.

To enable comparisons with subjects not meeting criteria for IA and GD control subjects (CG; control-group, $n=142$) were recruited from the local area. In contrast to the clinical groups it was not possible to conduct clinical interviews with the control subjects. However, exclusion criteria – with the exception for psychotic disorders – were assessed administering additional questionnaires (e.g. the Patient Health Questionnaire, depression screen; Spitzer et al., 2002) and items addressing the frequency of use of illicit substances. Based on this, $n=11$ subjects were excluded from the data analyses.

2.2. Measures

2.2.1. Sensation Seeking Scale-Form V (SSS-V; Zuckerman et al., 1978; German version by Beauducel et al., 2003)

This questionnaire assesses Sensation Seeking including its four subscales Thrill and Adventure Seeking (TAS), Disinhibition (DIS), Boredom Susceptibility (BS), Experience Seeking (ES) with 40 items in a forced-choice format. Although critical points have been posed (Arnett, 1994), it is one of the most popular instruments

Download English Version:

<https://daneshyari.com/en/article/6813191>

Download Persian Version:

<https://daneshyari.com/article/6813191>

[Daneshyari.com](https://daneshyari.com)