

PSYCHOLOGICAL NEEDS AND PROBLEMATIC PORNOGRAPHY USE AMONG YOUNG MEN: THE ROLE OF IMPULSIVE–COMPULSIVE MECHANISMS

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Abstract

Excessive and harmful pornography consumption is increasingly conceptualized as a form of maladaptive behavioural regulation characterized by impulsive and compulsive features. From the perspective of Self-Determination Theory (Deci & Ryan), such behaviour reflects not merely a deficit in self-control but the chronic frustration of basic psychological needs (BPNF): autonomy, competence, and relatedness. Frustration of autonomy fosters internal pressure and impulsive responding, while frustration of competence undermines self-regulation and increases reliance on immediate relief. Frustrated relatedness may expand, as pornography provides an illusory sense of intimacy without interpersonal risk. Impulsivity represents an acute response to unmet needs, whereas compulsivity reflects persistent behavior maintained despite negative consequences. Although pornography use may temporarily reduce distress, it can intensify need frustration, weakening self-regulation, and promoting a shift from impulsive to compulsive use. The present study examines the relationship between BPNF and problematic pornography use among young men, focusing on the mediating roles of impulsivity and compulsivity. Online data were collected from Slovak men aged 18–35 years ($N = 794$; $M = 29.8$; $SD = 9.8$). BPNF was assessed using the Basic Psychological Need Frustration Scale. Impulsivity (Short UPPS-P) and compulsivity (CPAS) were measured with validated scales and tested as mediators. Problematic pornography use was assessed with the PPCS. Linear regression models and mediation analyses examined direct and indirect associations among the study variables. As it was predicted, the BPNF were significantly associated with: (1) higher level of PPCS ($B = .278^{***}$); (2) higher impulsivity ($B = .343^{***}$) and (3) higher compulsivity ($B = .319^{***}$). Similarly, the impulsivity ($B = .301^{***}$) and compulsivity ($B = .209^{***}$) were positively associated with PPCS. The association between BPNF and problematic pornography use behaviour was partially mediated by impulsivity ($B = .0656^*$) and by compulsivity ($B = .0447^*$). The findings supported all hypothesized relationships, indicating that BPNF is significantly associated with PPCS among young men. This relationship was both directly and indirectly explained through impulsivity and compulsivity, with evidence for a sequential mediating pathway. The results highlight the role of impaired self-regulatory mechanisms in linking unmet psychological needs to maladaptive pornography use.

Keywords: *Psychological needs, pornography use, impulsiveness, compulsiveness, young men.*

1. Introduction

Problematic pornography use (PPU) has increasingly attracted attention as a potential form of maladaptive behavioural regulation characterized by loss of control, persistent engagement despite negative consequences, and psychological distress. Although pornography consumption is widespread and often considered a normative behaviour, a subset of individuals develops patterns of use that resemble behavioural addictions or compulsive sexual behaviours (Kraus et al., 2016; Potenza et al., 2017). Contemporary theoretical models increasingly emphasize that problematic engagement with sexual content cannot be explained solely by deficits in self-control but should be understood within broader motivational and regulatory frameworks that integrate both impulsive and compulsive mechanisms (Potenza et al., 2017).

One influential framework for understanding maladaptive behavioural regulation is Self-Determination Theory (SDT), developed by Edward L. Deci and Richard M. Ryan (Deci & Ryan, 2000). SDT posits that optimal psychological functioning depends on the satisfaction of three universal basic psychological needs: autonomy, competence, and relatedness. Research indicates that frustration of basic psychological needs may contribute to a range of problematic or compensatory behaviours, including excessive internet use, substance use, and other forms of maladaptive coping (Weinstein & Ryan, 2011).

From this perspective, individuals may turn to easily accessible digital activities as a means of regulating psychological discomfort associated with unmet needs. Online pornography may be particularly reinforcing because it can provide immediate emotional relief, perceived control over stimulation, and an illusory sense of intimacy without the risk in real interpersonal relationships (Kraus et al., 2016). However, such short-term regulation may ultimately intensify underlying need frustration, thereby contributing to a cycle of maladaptive engagement.

Within contemporary addiction frameworks, impulsivity and compulsivity are often conceptualized as partially distinct but interacting mechanisms underlying problematic behaviours (Chamberlain et al., 2016). Impulsivity generally refers to rapid, poorly controlled responses to internal or external stimuli without sufficient consideration of potential negative consequences. Compulsivity, in contrast, involves repetitive and rigid behavioural patterns that persist despite diminishing rewards or increasing harm. In the context of problematic sexual behaviours, impulsive tendencies may facilitate the initial use of pornography as a means of coping with distress or unmet psychological needs, whereas compulsive patterns may emerge over time as the behaviour becomes habitual and resistant to self-regulation (Potenza et al., 2017).

From the perspective of SDT, these regulatory processes reflect stages of maladaptive motivational dynamics. Frustration of autonomy may trigger impulsive responses, frustration of competence may weaken self-regulation, and frustrated relatedness may reinforce solitary coping behaviors such as pornography use by providing illusory intimacy without interpersonal risk (Ryan & Deci, 2017). Over time, reliance on these strategies may shift engagement from impulsive to compulsive patterns.

Despite growing interest in problematic pornography use, little research has examined how basic psychological need frustration relates to impulsive and compulsive mechanisms. The present study examines these relationships among young men, focusing on impulsivity and compulsivity as mediators linking unmet needs with problematic sexual behavior.

2. Methods

2.1. Sample

Online data collection was conducted among Slovak young men aged 18–35 years ($N = 794$; $M = 29.8$; $SD = 9.8$). Data were collected nationwide in Slovakia by a professional survey agency using proportional quota sampling reflecting the distribution of regions, educational attainment, and socioeconomic status in the population. The sample consisted exclusively of male participants aged 18–35 years. Participants received a small incentive from the research agency for completing the survey. Participation in the study was voluntary, and all respondents provided informed consent prior to completing the questionnaire. Data were collected anonymously. The content of the questionnaire and the data collection procedure were reviewed and approved by the Ethics Committee of Pavol Jozef Safarik University in Kosice.

2.2. Measures

Frustration of basic psychological needs (BPNF) was assessed using the Basic Psychological Need Frustration Scale, which measures the frustration of autonomy, competence, and relatedness as conceptualized within Self-Determination Theory (Bartholomew et al., 2011). Participants rated items describing experiences of psychological pressure and lack of volition (e.g., “I feel forced to do things I would not choose to do”) on a Likert-type scale, with higher scores indicating greater need frustration.

Impulsivity was measured using the Short UPPS-P Impulsive Behaviour Scale, a validated instrument assessing key facets of impulsive personality traits such as sensation seeking and lack of premeditation (Cyders et al., 2014). An example item is “I generally seek new and exciting experiences and activities.” Higher scores indicate stronger impulsive tendencies.

Compulsivity was assessed using the Compulsive Personality Assessment Scale (CPAS), which evaluates rigid behavioural tendencies and persistent goal-directed behaviour despite negative consequences (Fineberg et al., 2014). Example items include statements such as “Are you excessively devoted to work to the exclusion of leisure activities and friendships?”

Problematic pornography use was measured with the Problematic Pornography Consumption Scale (PPCS) (Bóthe et al., 2018). The scale assesses problematic engagement with pornography across several addiction-related dimensions (e.g., salience, conflict, withdrawal). Higher scores indicate greater levels of problematic pornography use.

2.3. Statistical analyses

Procedures included descriptive statistics and correlations to examine relationships among the variables. Linear regression models were used to assess the association between need frustration and

problematic pornography use. Mediation analyses were conducted to test whether impulsivity and compulsivity mediated the relationship between basic psychological need frustration and problematic pornography use. Indirect effects were estimated using bootstrapped confidence intervals (Hayes, 2018).

3. Results

As predicted, frustration of basic psychological needs (BPNF) was significantly associated with all key study variables. Higher BPNF was related to greater problematic pornography consumption ($B = .278$, $***p < .001$), as well as to higher levels of impulsivity ($B = .343$, $***p < .001$) and compulsivity ($B = .319$, $***p < .001$). These findings indicate that individuals experiencing stronger frustration of autonomy, competence, and relatedness tend to report more impulsive tendencies and stronger compulsive behavioural patterns. Both impulsivity and compulsivity were also positively associated with problematic pornography use. Higher impulsivity predicted higher PPCS scores ($B = .301$, $***p < .001$), while compulsivity was also significantly related to problematic pornography consumption ($B = .209$, $***p < .001$).

Mediation analyses further showed that the association between BPNF and problematic pornography use was partially mediated by impulsivity ($B = .0656$, $*p < .05$) and compulsivity ($B = .0447$, $*p < .05$), suggesting that need frustration may increase the risk of problematic pornography use partly through increased impulsive and compulsive tendencies.

4. Discussion and conclusion

The findings supported all hypothesized relationships, indicating that BPNF is significantly associated with PPCS among young men. This relationship was both directly and indirectly explained through impulsivity and compulsivity, with evidence for a sequential mediating pathway. The results highlight the role of impaired self-regulatory mechanisms in linking unmet psychological needs to maladaptive pornography use.

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