
Problematic Pornography Use and Sexual Shame: A Moderated Mediation Model of Perceived Social Realism and Gender

Soon Aun, Tan^{1*}, Xue Jie, Tay¹

¹Department of Psychology and Counselling, Faculty of Arts and Social Science, Universiti Tunku

Abdul Rahman,

Jl Universiti, 31900 Kampar, Perak, Malaysia

e-mail tansa@utar.edu.my

*Correspondence author

Abstract:

Sexual shame is a significant psychosexual health consequence of pornography use, mainly when individuals engage in upward social comparisons. Research has shown that pornography viewing patterns can vary significantly across genders, highlighting gender as a potential moderator. Moreover, the cognitive mechanisms underlying the direct association between pornography use and sexual shame remain unexplored. Therefore, the present study was undertaken to examine the indirect relationship between problematic pornography use and sexual shame through perceived social realism with gender as a moderator. 182 self-identified pornography users (51.1% females), with a mean age of 21.03 years (SD= 1.38), participated in the present study. The participants recruited through purposive sampling completed an online survey consisting of the Problematic Pornography Consumption Scale, the Sexual Shame and Pride Scale, and the Perceived Social Realism Scale. The results indicated no significant gender differences in the pathways among problematic pornography use, perceived social realism, and sexual shame. The direct effect of problematic pornography use on sexual shame was significant for males only. Conversely, the positive association between problematic pornography use and sexual shame, mediated by perceived social realism, was substantial for females but not for males. The results confirmed that the effects of problematic pornography use are still gender-specific. Notably, for females, sexual shame associated with problematic pornography use can be explained by their perceptions of social realism in pornography. In contrast, this rationale does not similarly account for the associations of sexual shame with problematic pornography use in males. The present study highlights the potential consequences of problematic pornography use on psychosexual health, particularly sexual shame, by examining the roles of cognitive appraisal and gender. Additionally, the findings contribute to the existing literature on pornography within the Malaysian context.

Keywords: *Problematic Pornography Use, Sexual Shame, Perceived Social Realism, Gender*

1. Introduction

Pornhub.com, the world's largest pornographic website (Grubbs & Kraus, 2021), recorded an astounding 5.49 billion adult visits in May 2024 alone (Statista, 2024). It is worth noting that these statistics come from just one of the thousands of websites that host pornographic materials. The proliferation of pornographic videos on the Internet has surged dramatically in pornography consumption, leading to potential problematic pornography use. Problematic pornography use (PPU) is an umbrella term that encompasses the uncontrollable, repetitive, and persistent use of pornography, which is associated with clinically significant distress and negative outcomes, including personal, relational, and functional impairments such as unemployment (Bóthe et al., 2024; Vieira & Griffiths, 2024). Over the past two decades, PPU has become a growing concern in Western countries, particularly the United States (Robb-Dover, 2024; Smith & LeSueur, 2023; Vieira & Griffiths, 2024). Asian countries are also no exception whereby in 2020, Malaysia ranked first in Asia for the most visits to pornographic websites, and females were affected more psychologically by PPU (Hanafi, 2022; Nozid et al., 2023; Tan et al., 2022).

Undeniably, the pervasive nature of PPU has profound implications on societal functioning. High levels of PPU not only affect individual users but also influence their behaviours towards others, leading to broader social consequences (Sharpe & Mead, 2021). For instance, users often report lower relationship satisfaction and stability, diminished positive communication, and increased psychological aggression between partners, mainly due to the unrealistic depictions and false narratives found in pornography (Jongsma & Fritz, 2022). This suggests that PPU can disrupt intimate relationships and social interactions that affect the overall well-being of individuals and communities.

Problematic Pornography Use and Sexual Shame

Shame is an umbrella term that covers a wide range of emotions in which sexual shame is a specific subset of shame characterised by feelings of disgust or humiliation towards sexual acts, feelings, or desires (Wright & Moawad, 2023). This type of shame is considered a psychosexual health consequence of problematic pornography use, especially when users engage in upward comparison. Supported by the theory of social comparison, the way people compare themselves with their reference groups includes two types of social comparison which are upward and downward

social comparison (Cherry, 2024; Festinger, 1954). In upward comparison, shame is developed from unrealistic comparisons from pornography, such as action, size, performance and so on. When individuals feel they are not perfectly identical to the actors or actresses, they may feel ashamed (Sniewski & Farvid, 2020).

These unrealistic expectations and distorted views can further exacerbate sexual shame, creating a vicious cycle where individuals' self-esteem and sexual well-being are continually undermined (Merino et al., 2024; Wright et al., 2021). This cyclical effect then highlights the profound impact of problematic pornography use on the individuals' psychological and sexual health (Camilleri et al., 2020; Puralijan et al., 2024). Additionally, internalising these unrealistic standards and negative self-perceptions can hinder the development of healthy, fulfilling intimate relationships, further compounding the emotional distress experienced by those affected (Chong, 2022).

Perceived Social Realism as a Mediator

Although pornography viewing is increasingly common, individuals in emerging adulthood are particularly vulnerable to developing behavioural disorders as a result (Bernstein et al., 2023). One explanation for this vulnerability is that frequent pornography users often come to believe that the scripts depicted in pornography are realistic. This belief arises because frequent viewers tend to synchronise their sexual scripts and behaviours with those portrayed in pornography (Peter & Valkenburg, 2010; Tan et al., 2022; Vandebosch et al., 2017). This condition may adversely provoke negative sexual self (i.e., sexual shame), especially if pornography users imply upward or unrealistic comparisons from the actors or actresses to their real-life sexual contexts.

Meanwhile, past studies have consistently employed perceived social realism as the mediator in understanding the association between pornography use and condomless sex (Wright et al., 2023). Also established is the bivariate relationship between problematic pornography uses and perceived social realism (i.e., Gunnoo & Powell, 2023) as well as perceived social realism and sexual shame (i.e., De Jong & Cook, 2021). Therefore, it is reasonable to hypothesise that individuals with problematic pornography use patterns tend to perceive social realism of pornography that consequently evokes the feeling of sexual shame.

Gender as a Moderator

Users of different genders are affected differently by sexual shame when exposed to pornography. Extensive research has consistently found that men view pornography more frequently and experience greater negative mental health effects (i.e., psychological distress, sexual shame, etc.) than women (Carroll et al., 2016; Grubbs et al., 2015; Regnerus et al., 2016; Shaughnessy & Byers, 2014; Tan et al., 2022; Wright, 2021). However, some past studies discovered the positive effects of pornography use on both genders. For instance, males can relieve their boredom, enhance their sexual knowledge, and improve their sexual satisfaction (Kirby, 2021; Tan et al., 2022). For females, pornography use may enhance their sexual arousal and improve their intimacy with their sexual partners (Litsou et al., 2021; Mulya & Hald, 2014; Tan et al., 2022). This trend underscores a significant gender disparity in pornography consumption patterns besides reflecting the different social and psychological impacts of pornography use on men and women distinctively.

However, it is crucial to note that the psychological effects of problematic pornography use can be more pronounced in women. Several studies have found that women are more susceptible to the negative psychological impacts of problematic pornography use than men. Brown (2017) and Solis (2017) found that pornography content is targeted at male users, and it prioritizes male enjoyment. On the contrary, the content of pornography often demeans and objectifies women. Hence, women may experience greater feelings of sexual shame, lower self-esteem, and more significant emotional distress as a result of their pornography consumption (Ballester-Arnal et al., 2016; Bóthe et al., 2018; Bóthe et al., 2022; Okabe et al., 2021; Tan et al., 2022). This heightened vulnerability could be attributed to societal expectations and gender norms that place different pressures on men and women regarding sexuality and pornography use.

The Present Study

Malaysia is a relatively conservative country that makes discussions about sexuality difficult and sensitive due to cultural and religious constraints (Tey et al., 2022). Moreover, there is a notable lack of studies on the mediating role of perceived social realism between problematic pornography use and sexual shame in the existing Malaysian literature. Therefore, the present study aims to expand the literature on the association among problematic pornography use, social realism, and

sexual shame, specifically targeting Malaysian emerging adults. It seeks to fill the research gaps by addressing the following research objectives:

1. to examine the association of problematic pornography use, perceived social realism, and sexual shame among pornography user samples.
2. to test the hypothetical moderated mediation model (i.e., Model 59) in identifying the effect of gender as a moderator and the perceived social realism as a mediator in the association between problematic pornography use and sexual shame.

2. Methods

Participant

The participants comprised 182 pornography users (51.1% females; 65.4% singles) with a mean age of 21.03 (SD = 1.38). Most participants were Chinese (87.4%), followed by 6.6% Indians, 3.3% Malays, and 2.7% other ethnicities. Participants were recruited using the purposive sampling method.

Research Procedure

The data was collected using Qualtrics, an online survey platform. A recruitment advertisement with its project description was created and published on various social media such as Instagram, LinkedIn, WhatsApp, and Facebook. Participants were shown the information sheet once they clicked the survey link or scanned the QR code. They were then required to indicate their agreement to participate in the survey by clicking the agree option before answering the survey questionnaire. The institutional ethical review committee has approved the research procedure.

Measurement

The Problematic Pornography Consumption Scale (PPCS-6) is considered a short, reliable, and valid scale to assess PPU. The scale created by Bothe et al. (2021) consists of six items designed to evaluate individuals' experiences with pornography use. Participants indicated their responses on a 7-point Likert scale ranging from 1 (Never) to 7 (All the time). A higher mean score reflects greater

problematic pornography consumption. The scale showed good reliability, indicated by a McDonald's Omega of .889.

Sexual shame was measured using an 8-item subscale from the Sexual Shame and Pride Scale developed by Rendina et al. (2018). Participants responded from 1 (not at all like me) to 6 (exactly like me) on the Likert scale. The scale's McDonald's Omega of .845 in the present study indicated good reliability. Total scores range from 8 to 48, with higher scores indicating greater levels of sexual shame (Cronbach's α : .90). The subscale has demonstrated convergent and predictive validity.

Perceived Social Realism was evaluated using the 7-item scale developed by Peter and Valkenburg (2010). Participants rated their responses on a 5-point Likert scale from 1 (fully disagree) to 5 (fully agree). A mean score is computed, with higher scores reflecting a stronger perception of the realism associated with pornography use. The scale showed excellent internal reliability, indicated by a McDonald's Omega of .845.

3. Result

Relationship between Variables

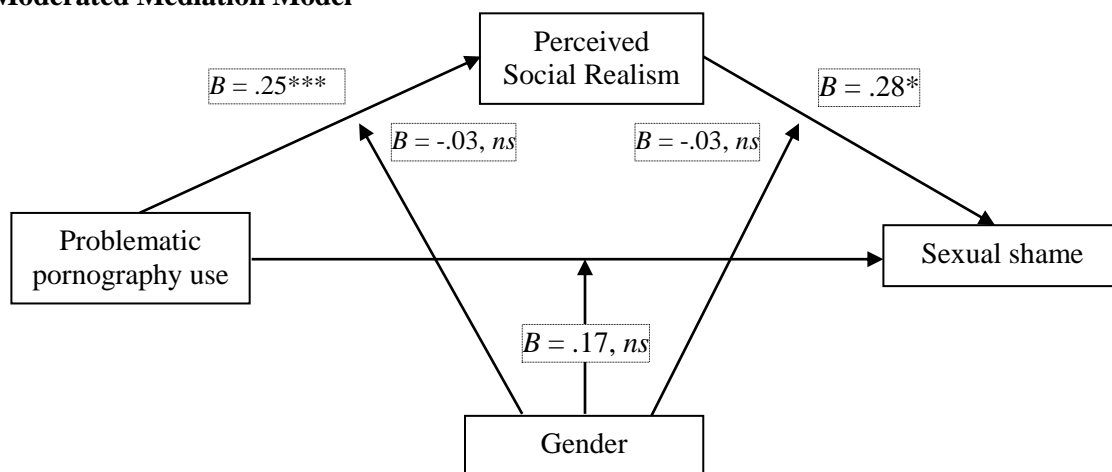
The correlation analysis revealed a significant positive relationship between problematic pornography use and perceived social realism, $r(180) = .393$, $p < .001$. Similarly, problematic pornography use positively correlated with sexual shame, $r(180) = .271$, $p < .001$. In the same direction, higher perceived social realism was significantly linked to higher sexual shame, $r(180) = .194$, $p = .007$.

Moderated Mediation Analysis

Figure 1 presents the results of the moderated mediation analysis (SPSS Macro Process Model 59) using 10,000 bootstrap samples, reflecting the interconnection among the selected variables. Results indicated that problematic pornography use was positively associated with perceived social realism, $B = .25$, $SE = .06$, $t(178) = 4.40$, $p < .001$, 95% CI [.14, .36]. Also, perceived social realism was positively significantly linked to sexual shame, $B = .28$, $SE = .12$, $t(176) = 2.23$, $p = .03$, 95% CI [.03, .52]. In contrast, problematic pornography use was not

significantly associated with sexual shame, $B = .09$, $SE = .08$, $t(176) = 1.14$, $p = .26$, 95% CI [-.06, .23]. It is interesting to note that the conditional direct effects of problematic pornography use on sexual shame were significant for males ($B = .25$, $SE = .25$, $t = 3.15$, $p < .001$, 95% CI [.09, .41]) but not for females ($B = .09$, $SE = .08$, $t = 1.14$, $p = .26$, 95% CI [-.06, .23]). In addition, the indirect effect of problematic pornography uses and sexual shame via perceived social realism was only significant for females ($B = .07$, $SE = .03$, 95% CI [.01, .14]) but not for males ($B = -.01$, $SE = .03$, 95% CI [-.08, .06]). Despite some significant differences between males and females along the direct and indirect association, the index of moderated mediation was not statistically significant [Index = -.08, 95%; CI (-.18, .01)] hence the overall moderated mediation model was not supported.

Figure 1.
Moderated Mediation Model



4. Discussion

The present study assessed the association among problematic pornography use, perceived social realism and sexual shame. It also investigated the effects of gender as a moderator and perceived social realism as a mediator in the association between problematic pornography use and sexual shame. The results of the present study supported the positive associations among the main variables: individuals reported with higher problematic pornography use tend to have higher perceived social realism and higher sexual shame. The results are further supported by past studies (Floyd et al., 2022; Sniewski & Farvid, 2020; Tan et al., 2022)

Even though the index of moderated mediation results does not support the significant moderated mediation model as a whole with regard to gender and perceived social realism, the results found some interesting findings worth considering. Particularly, the effects of problematic pornography and sexual shame are still very gender segregate. Notably, sexual shame associated with problematic pornography use for females can be explained by their perception of social realism in pornography. It is reasonable to conclude that females tend to uphold the upward comparison (Franzoi et al., 2012; Wright et al., 2021). In the context of the present study, females may have internalised the sexual scripts portrayed in pornography (i.e., perfect sexual bodies and performances), especially when they perceive pornography as real and useful, which would then inhibit the feeling of incompetence and shame as a sexual being if their sexual bodies and performances were incompatible with those of pornography actresses’.

On the other hand, this rationale does not similarly account for the sexual shame experienced by male pornography users for problematic pornography use. For males, problematic pornography use is directly associated with sexual shame, but not via perceived social realism. On top of perceived social realism, the idealised male image portrayed in pornography may increase the sense of comparison among male pornography users despite their views of social realism, which may still decrease the self-ratings that provoke sexual shame (Gewirtz-Meydan et al., 2024).

Furthermore, the motivation for pornography users may explain these gendered pornographies use and its effect on sexual shame via perceived social realism. Males use pornography for boredom relief, excitement seeking and sexual arousal (Moynihan et al., 2022; Qadri et al., 2023), which emphasizes the self-fulfilling sexual feeling that may reduce the impact of perceived social realism of their pornography use. In comparison, females tend to consume less pornography, and their pornography uses tend to have different focus points or purposes (Brown et al., 2017; Daskalopoulou & Zanette, 2020; Esplin et al., 2021; Grubbs et al., 2019; Gurevich et al., 2017; Litsou et al., 2021; Prause, 2019; Weinberg et al., 2010) that are not so self-focused thus resulted in their views on pornography’s realness and usefulness taking probably more weightage and impact on their psychosexual outcomes. Therefore, the perception of social realism can explain females’ but not males’ sexual shame associated with problematic pornography use.

Overall, the present study has made several noteworthy contributions to the study of potential consequences of problematic pornography use on psychosexual health (i.e., sexual shame) by realising the roles of cognitive appraisal and gender. Moreover, the results have filled the knowledge gap and further enlightened practitioners dealing with pornography issues to consider gender and cognitive evaluation as part of their treatment plans or strategies.

Limitations and Recommendations

The findings from the present study should be interpreted with certain limitations. Firstly, the participants were predominantly of Chinese ethnicity, which may not reflect the actual ethnic composition of Malaysia. Therefore, future researchers should aim to recruit participants following the proportion of ethnicities in Malaysian society or others. Secondly, the cross-sectional design limited the cause-and-effect determination of the variables. Future researchers could, therefore, consider applying longitudinal studies to explain the cause-and-effect of the variables and further confirm the hypothetical moderated mediation model proposed in the present study. Finally, the researchers applied a quantitative online survey research design, which may not have deliberated on the differences in each participant. Hence, future researchers could consider a mixed-method research design (e.g. online questionnaire and interview) for a more comprehensive and holistic outcome on this topic.

5. Summary

In conclusion, the moderating role of gender does not show significant differences in the individual bivariate pathways between problematic pornography use, perceived social realism, and sexual shame. Despite the non-significant index of moderated mediation results, there are several interesting findings to take note of. For example, the present study provides preliminary statistical support for the mediating role of perceived social realism between problematic pornography use and sexual shame among emerging adults in Malaysia, particularly among female pornography users. In particular, females, but not males, with sexual shame resulting from problematic pornography use tend to explain their perceptions of social realism in pornography. Overall, the results of the present study have added to the limited literature on self-reported pornography problematic use in the area of sexual shame among emerging Malaysian adults.

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