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### THE EFFECTS OF WATCHING INTERNET PORNOGRAPHY ON INTERNET-PORNOGRAPHY VIEWING DISORDER (IPD) AMONG INTERNET PORNOGRAPHY USERS IN MALAYSIA

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#### ABSTRACT

The present study is to examine the effects of internet pornography consumption on the tendencies towards Internet Pornography-Viewing Disorder (IPD). A total of 202 Malaysian online pornography users were involved in this study through snowball sampling technique based on an online questionnaire that were distributed to online channels such as e-mail lists, social media websites (e.g., Twitter, Facebook and online communication application, WhatsApp) that specifically targeted to online pornography users. Results shows that there are positive significant relationships for internet pornography users on pornography motivation, sexual arousal (while watching internet pornography and the need to masturbate while watching internet pornography) and sexual gratification on tendencies towards Internet-pornography-viewing-disorder (IPD). Meanwhile, having sexual arousal while viewing internet pornography reported as the main indicator that contribute to the tendencies of IPD. Overall, the results showed effects of watching Internet pornography on pornography motivation, sexual arousal and sexual gratification which can be considered having reinforcing effects for the users. Thus, the results are in line with theoretical assumptions on IPD's development, in which reinforcement received by internet pornography use is related to cue-reactivity and craving reactions.

**Keywords:** *Internet pornography, Pornography Motivation, Sexual Arousal, Sexual Gratification, Internet Pornography-Viewing-Online Disorder (IPD)*

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## INTRODUCTION

Nearly 82% of Malaysians have Internet access (Müller, 2020), and this technology reality has increase pornography use. The fledging body of research in this area are discussed controversially on the impact of Internet pornography (IP) which are both negative and positive. Specifically, studies on IP has been associated to many problems including financial (Short, Black, Smith, et al., 2012), intrapersonal relationships (Muusses, Kerkhof, & Finkenauer, 2015), emotional problems (Laier & Brand, 2016), and sexual dissatisfaction (Park, Wilson, Berger, Christman, et al., 2016). Meanwhile, studies also have found positive effects of internet pornography, including relieving stress (Laier & Brand, 2016), decreasing boredom (Wegmann, Ostendorf, & Brand, 2018), feeling supported (Snagowski & Brand, 2015), and increasing sexual knowledge (Grubbs, Wright, Braden, Wilt, & Kraus, 2019). However, the harms that internet pornography may contribute to psychological defects especially in addiction is put into highlight.

The rising consumption of pornography among internet users has contributed to the development of IP addiction (Short, Black, Smoth, et la., 2012). It allows the access to pornographic materials which increases the internet traffic even more. Internet pornography statistics reported that 67% of the internet traffic are those who are viewing PornHub – a pornographic video sharing and pornography website through smartphones alone. Meanwhile, 61% of the visitors are users from the age of 18 years old to 34 years old (Ropelato, 2014). Adding to this, 595, 482 hours has been spent in uploading pornography from the internet which reflects the addiction towards pornography materials.

Porn addiction refers to a person becoming emotionally dependent on pornography obstruct their daily life, relationships, and ability to function. Moreover, porn addiction can be referred to a range of sexual behaviors that are done in access and negatively impact one's life. For example, the endless supply of porn images and videos have blend the concepts of sex and violence into the developing brains of the users especially among pre-adolescents, adolescents, and young adults (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010). Until today, porn addiction is not an official diagnosis in the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-5) as the detailed diagnostic symptoms is yet to be determined. Somehow, the term Internet-pornography-viewing-disorder (IPD) has been used as an analogy to Internet-gaming-disorder as used in the DSM-5 (APA, 2013) that shares the similar symptoms of addiction.

The addictive nature of sexual behaviors is still debated, but many researchers argue that watching pornography in general might be considered addictive as compared to sexual behaviors itself (Kraus, Voon, & Potenza, 2016; Love, Laier, Brand, Hatch, & Hajela, 2015). It has become obvious that some individuals who indulge in IP use reported a loss of control and addicted towards it which is associated strongly by increasing using times and negative consequences in several life domains, such as academic and job functioning (Duffy, Dawson, & das Nair, 2016).

### **Pornography Motivation on IPD**

In a meta-analytic study on IP and sexual motivation, Grubbs, Wright, Braden et al., (2018) reviewed over 130 studies demonstrates that pornography is most often consumed for pleasure-seeking purposes, that is associated with increases in casual or impersonal

approaches to sexuality, and that it predicts more pleasure-oriented approaches to sexual behavior. This pleasure feeling will bring cognitive impairment especially leading to addiction. While exposure to regular internet pornography was associated to the shrinkage of the brain size due to the gray matter volume of the right caudate of the striatum is smaller with higher pornography use (Kühn & Gallinat, 2014).

### **Sexual arousal and gratification on IPD**

Among of the used constructs to denote IPD is sexual gratification or satisfaction (Bradbury & Karney, 2010). In early studies, researchers hypothesized that pornography had caused harm and detrimental effects on sexual satisfaction (e.g., Zillman & Bryant, 1988; Kenrick, Gutierrez, & Goldberg, 1989). This hypothesis was based on two assumptions; firstly, satisfaction is a subjective state influenced by comparisons to others and their experiences, and secondly, that pornographic actors are more sexually attractive and skilled than most consumers and their partners and the gratifications from sex represented in pornography exceed the gratifications that most consumers experience in their own lives. In more recent papers, however, it has become a common reason given by internet pornography users that it may enhance sexual gratification when asked how pornography has affected them (e.g., Kvalem, Traeen, & Iantaffi, 2015).

For example, Mulya and Hald (2014) found that internet pornography users reported that their use of pornography has increased their satisfaction with their sexual knowledge, skill, inter/intrapersonal relations, outlook, efficacy, and even their life in general. This is reported commonly among frequent and longer durations of internet pornography users that perceive such positive impacts. However,

psychologically, such perceptions may reflect a self-enhancement bias, a desire to reduce cognitive dissonance to justify their acts, or a psychological reactance against bad thoughts or feelings that they should stop consuming the pornography materials in question (Bushman & Huesmann, 2014).

### **The negative effects of pornography addictions**

The negative effects of watching and addicted to pornography has been supported by numerous empirical and clinical evidence which claims that it may lead to psychological distortion. The main three distortions are, first, porn use has been associated to sexual dysfunctions that is linked to less sexual and relationship satisfaction (Park, Wilson, Berger, Christman, et al., 2016). Secondly, porn use described three (3) main changes of the brain that identified in substances addiction: (1) Sensitization, (2) Desensitization, and (3) Dysfunctional prefrontal circuits (hypofrontality) (Voon, Mole, Banca, Porter, et al., 2014; Negash, Sheppard, Lambert, & Fincham, 2015). These three problems associated to high porn consumption needs and increasing stimulation to receive sexual pleasure due to the feeling of boredom with normal sexual behavior. This further linked to arousal addiction and potential negative psychological outcomes such as performance anxiety, stress and depression. These problems are maybe few of the many consequences of internet pornography addiction.

Intensely, Wilson (2016) in his study on the effect of chronic pornography use shows that people may develop certain behaviors such as being alone, voyeurism which is gaining sexual pleasure from watching others naked or engaging in sexual activities and constant novelty. However, Wilson highlighted that the

huge reason that contributes to the addiction of watching pornography is due to constant novelty. Constant novelty is having a constant newness or refreshing quality, in this context, is seeking newer or different types of pornography available on the Internet. Moreover, Wilson also stated that the brain has a reward circuit, for natural rewards such as sex, bonding and food. But when the brain receives extreme versions of natural rewards, the brain produces extra dopamine which in return promotes the cycle of bingeing and craving. The cravings for pornography may reach to a point of unsatisfactory level, where everyday pleasure does not satisfy a heavy porn user anymore which this may indirectly leads to intimate partner sexual violence.

Considering the consequences of pornography addiction, hence, this study aimed to investigate how internet pornography influences online pornography users in Malaysia, above 18 years old on their sexual activities that thus leads to IPD. Thus, this study focuses on the relationship between watching online pornography from the perspective of pornography motivation, sexual arousal and gratification on IPD. Specifically, the research objectives are:

1. To identify the participants' gender and hours of watching internet pornography.
2. To examine the relationship between pornography motivation, sexual arousal and sexual gratification on IPD.
3. To determine the main factor that contribute to IPD.

## **MATERIAL AND METHOD**

### **Procedure**

Participants were recruited through e-mail lists social network sites (e.g. Twitter, Instagram and Facebook) and WhatsApp that mainly targeted to those that watch internet pornography. To ensure that the participants are among those internet pornogrpahy users, a snowballing technique has been used in order to identify individual or a group of people that watch pornography materials. The questionnaire description indicated explicitly that the online study investigates Internet-pornography use and that only Internet-pornography users were invited to participate. Individuals interested in participation were asked to answer the invitation on the google form and were then briefed and consent were given. The study was introduced as survey with three parts; 1) sociodemographic variables, 2) pornography motivation, sexual arousal and gratification, and 4) Internet Pornography Disorder (IPD).

### **Participants**

The study focused on online pornography users who possessed the following criteria; (1) 18 years old and above, and (2) internet pornography use in the past six months. The respondents were then described according to gender and hours of viewing online pornography.

### **Questionnaires**

The questionnaire contained four major parts as follows;

*Sociodemographic background.* Necessary information were gathered that include age, gender, and hours of viewing pornography online from the Part A of the questionnaire.

*Motivation, sexual arousal and gratification to online pornography* were measured through Pornography Consumption Inventory developed by Reid, Li, Gilliland, Stein and Fong (2011) which consist of 15 items and 3 items on the second component which focused on sexual and arousal gratification. A reliability test conducted recorded a high internal reliability ( $\alpha = .84$ )

*Tendencies on Internet Pornography-viewing Disorder (IPD)* were measured using a short version of the Internet Addiction Test modified for sex (Laier, Pawlikowski, Pekal, Schulte & Brand, 2013). It is a 12-item questionnaire that indicate the severity of addiction on a 5-point Likert scale. Examples of the items are; “How often do you try to hide how long you have been on the Internet sites?”, “How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back on Internet sex sites?” The total scores were then summed up for the total score with high scores representing high tendencies towards or high symptoms of IPD, respectively. Internet Addiction Test recorded a high internal reliability of  $\alpha = .83$ .

**RESULTS**

**Table 1: Respondent’s sociodemographic background.**

Variable	N(%)
Age	
18 – 25	85.7
25 – 30	13.0
31 – 40	1.0

41 above	0.5
<b>Mean</b>	23.48
<b>Sd.</b>	4.182
<b>Min.</b>	19
<b>Max.</b>	69

Gender	N(%)
Male	55.7
Female	44.3

**Hours on Viewing Pornography (Weekly)**

Hours viewing	N (%)
Less than a half hour	54.2
1 – 3 hours	40.8
4 – 6 hours	1.5
> 6 hours	3.5

Based on Table 1, it shows that majority of the respondents (85.7%) age ranged between 18 – 25 years old followed by 13% of age ranged between 25 – 30 years old. This data particularly shows that majority of the internet pornography users are among the young adults. Meanwhile, in terms of gender, of 202 respondents, 55.7% are male and 44.4% are female that bring up to nearly an equal proportion of gender equivalent. For hours spent on viewing pornography in a weekly scale, majority of the respondents spent less than half an hour on viewing online pornography at 54.2%. Alarmingly, 40.8% of the respondents spent at least 1 to 3 hours in viewing online pornography followed by 1.5% of the respondents spent at least 4 to 6 hours in viewing online pornography.

**Relationships between pornography motivation, sexual arousal and gratification on the tendencies towards IPD**

**Table 2: The relationship between pornography motivation, sexual arousal and gratification on the tendencies towards IPD.**

Variable	Tendencies towards IPD	
	<i>r</i>	<i>p</i>
<i>Pornography Motivation</i>	0.517**	0.000
<i>Sexual Arousal</i> (while watching internet pornography)	0.447**	0.000
<i>Sexual Arousal</i> (need to masturbate while watching internet pornography)	0.352**	0.000
<i>Sexual Gratification</i> (satisfaction after an orgasm)	0.241**	0.001

Note: \*\*\* Level of significant is at  $p < 0.001$

Meanwhile, Table 2 reported that pornography motivation showed a significant relationship on the tendencies towards IPD ( $r = .52, p < .05$ ). Significant relationship also showed on sexual arousal; 1) while viewing online pornography and 2) the need to masturbate while watching online pornography ( $r = .35, p < .05; r = .35, p$

$< .05$  respectively). There was also a significant relationship between sexual gratification on the tendencies towards IPD where result reported  $r = .24, (p < .05)$ . Thus, this result indicates that internet pornography not only relates positively to pornography motivation, sexual arousal and gratification, but it also positively associated to IPD.

**Indicators of online pornography consumption on the tendencies towards IPD.**

**Table 3: Multiple regression in determining the main indicators of online pornography consumption on the tendencies towards IPD.**

Variable	Tendencies towards Internet Pornography-viewing Disorder			
	B	SE.B	Beta, $\beta$	<i>p</i>
Pornography Motivation	0.007	0.194	0.009	0.000
<i>Sexual Arousal</i> (While viewing online pornography)	0.205	0.105	0.544	0.000
<i>Sexual Arousal</i> (Need to masturbate while viewing online pornography)	-0.021	0.067	-0.070	0.000
<i>Sexual Gratification</i> (Satisfaction after an orgasm)	-0.038	0.052	-0.137	0.001
<b>Adjusted R<sup>2</sup></b>	0.310			
<b>F</b>	2.445			

Table 3 reported the main indicator that contributes to IPD. Overall, the model shows a significant with  $R^2 = 0.310$ . This shows that this model contributes 31% variance to IPD with  $F = 2.445$ ,  $p < .001$ . Meanwhile, all four indicators contribute significantly towards IPD; pornography motivation ( $\beta = 0.009$ ,  $p < .001$ ), sexual arousal (need to masturbate while viewing online pornography) ( $\beta = -0.070$ ,  $p < .001$ ), sexual gratification ( $\beta = -0.137$ ,  $p < .001$ ), with sexual arousal (while viewing online pornography) shows the strongest indicator that contribute to IPD ( $\beta = 0.544$ ,  $p < .001$ ).

## DISCUSSION

The accessibility, affordability, and anonymity makes pornography materials easily accessed. Pornography as a (mis)interpretation of sexuality, distorts one concept of sexual relations that will in turn alters both sexual attitudes and behaviour. Based on the overall results, addiction to pornography underlies by constant novelty. In psychology perspective, the brain is constantly seeking for rewards, and that general genres of pornography may no longer surprises the brain which leads it to search for other genre, stronger and hard-core pornography in order to have that reward mechanism (Wilson, 2016). Thus, regular internet pornography consumptions will further leads to addiction and somehow will threaten not only the users but society at large due to the alteration of the brain and changes in attitude in a negative way.

It is important to realize that high strong drive towards pornography motivation or the need for seeking sexual arousal and gratification could be the start of an addiction progressively leading to IPD, as there is significant relationship between pornography motivation, sexual arousal and gratification on the tendencies towards IPD. Meanwhile, sexual

arousal while viewing online pornography as the main predictor of internet pornography consumption indicates that users are consuming pornography compulsively in order to spark arousal. The need to receive or experience sexual arousal is drive users to view and consume online pornography to the exclusion of their daily important priorities.

Overall, a deeper understanding on pornography is vital to explore and put into highlight as it may not only open to mental health risks, but moreover it may bring harm not just to the individual but also to others. Supporting to this, from this study, at a cut off over than average ( $> 30$ ) indicates a high tendency towards IPD, and it was identified that at 1-3 hours, 4-6 hours and more than 6 hours of watching online pornography resulting to a relatively high IPD tendencies. Therefore, it is time for us to start acknowledging addiction to pornography as an alarming issue hence it may subsequently lead to a potential disorder, Internet Pornography-Viewing Disorder. Often, issues on pornography is taken as trivial, unimportant, and should never be talked about. But knowing the implications on the addiction of pornography, it is a must that we start treating it as a problem and figure out ways to effectively counter it.

## REFERENCES

1. Bradbury, T. N. & Karney, B. R. (2010). *Intimate relationships*. W. W. Norton, New York.
2. Bridges, A. J. (2010). Pornography's effects on interpersonal relationships. In *The Social Costs of Pornography*, edited by James R. Stoner and Donna M. Hughes, 89-110. Princeton: Canadian Witherspoon Institute.
3. Bridges, A. J., Wosnitzer, R., Scharrer, E., Sun, C., & Liberman, R. (2010). Aggression

- and sexual behaviour in best-selling pornography videos: A content analysis update. *Violence Against Women*, 16, 1065 – 1085.
4. Bushman, B. J., & Huesmann, L. R. (2013). Twenty-five years of research on violence in digital games and aggression revisited: A reply to Elson and Ferguson. *European Psychologist*, 19(1), 47-55.
  5. Duffy, A., Dawson, D. L., & das Nair, R. (2016). Pornography addiction in adults: A systematic review of definitions and reported impact. *The Journal of Sexual Medicine*, 13, 760-777.
  6. Grubbs, J. B., Wright, P. J., Braden, A. L., Wilt, J. A., Kraus, S. W. (2019). Internet pornography use and sexual motivation: a systematic review and integration. *Annals of the International Communication Association*, 43(2), 117-155.
  7. Kenrick, D. T., Gutierrez, S. E. & Goldberg, L. L. (1989). Influence of popular erotica on judgements of strangers and mates. *Journal of Experimental Social Psychology*, 25, 159-167.
  8. Kraus, S. W., Voon, V., & Potenza, M. N. (2016). Should compulsive sexual behaviour be considered an addiction? *Addiction*, 111, 2097-2106.
  9. Kühn, S., & Gallinat, J. (2014). Brain structure and functional connectivity associated with pornography consumption: The brain on porn. *JAMA Psychiatry*, 71(7), 827-834.
  10. Kvalem, I. L., Traeen, B., Iantaffi, A. (2015). Internet pornography use, body ideals, and sexual self-esteem in Norwegian gay and bisexual men. *Journal of Homosexuality*, 63(4).
  11. Laier, C., & Brand, M. (2016). Mood changes after watching pornography on the internet are linked to tendencies towards internet-pornography-viewing-disorder. *Addictive Behaviours Reports*, 5, 9-13.
  12. Laier, C., Pawlikowski, M., Pekal, J., F. P., & Brand, M. (2013). Cybersex addiction: Experienced sexual arousal when watching pornography and not real-life sexual contacts makes the difference. *Journal of Behavioural Addictions*, 2, 100-107.
  13. Laier, C., Pawlikowski, M., Pekal, J., Schulte, F., & Brand, M. (2013). Cybersex addiction: Experienced sexual arousal when watching pornography and not real-life sexual contacts makes the difference. *Journal Of Behavioral Addictions*, 2(2), 100-107. doi: 10.1556/jba.2.2013.002
  14. Love, T., Laier, C., Brand, M., Hatch, L., & Hajela. (2015). Neuroscience of Internet pornography addiction: A review and update. *Behavioural Sciences*, 5, 388-433.
  15. Müller, J. (2020). Malaysia: internet user penetration 2017-2023. Retrieved from <https://www.statista.com/statistics/975058/internet-penetration-rate-in-malaysia/>
  16. Mulya, T. W., & Hald, G. M. (2014). Self-perceived effects of pornography consumption in a sample of Indonesian University students. *Media Psychology*, 17, 78-101.
  17. Muusses, L. D., Kerkhof, P., Finkenauer, C. (2015). Internet pornography and relationship quality: A longitudinal study of within and between partner effects of adjustment, sexual satisfaction and sexually explicit internet material among newlyweds. *Computers in Human Behaviour*, 45, 77 – 84.
  18. Negash, S., Sheppard, N. V., Lambert, N. M., Fincham, F. D. (2015). Trading later rewards for current pleasure: Pornography consumption and delay discounting (2015).
  19. Park, B. Y., Wilson, G., Berger, J., Christman, M., Reina, B., Bishop, F., Klam, W. P., & Doan, A. P. (2016). Is internet pornography causing sexual dysfunctions?

- A Review with clinical reports. *Behavioral Sciences*, 6(3), 17, 11 – 25.
20. Park, B. Y., Wilson, G., Berger, J., Christman, M., Reina, B., Bishop, F., Klam, W. P., & Doan, A. P. (2016). Is internet pornography causing sexual dysfunctions? A review with clinical reports. *Behavioural Sciences*, 6(3), 17.
21. Reid, R. C., Li, D., Gilliland, R. Stein, J. A., & Fong, T. W. (2011). Reliability, validity, and psychometric development of the pornography consumption inventory in a sample of hypersexual men. *Journal of Sex and Marital Therapy*, 37(5), 359-385.
22. Ropelato, J. (2014) Internet pornography statistics. Retrieved from <http://ministryoftruth.me.uk/wp-content/uploads/2014/03/IFR2013.pdf>
23. Short, M. B., Black, L., Smith, A. H., Wetterneck, C. T., Wells, D. E. (2012). A review of internet pornography research: Methodology and content from the past 10 years. *Cyberpsychology, behaviour, and social networking*, 15(1).
24. Snagowski, J., & Brand, M. S. (2015). Symptoms of cybersex addiction can be linked to both approaching and avoiding pornographic stimuli: results from an analog sample of regular cybersex users. *Frontier Psychology*, 6, 653.
25. Voon, V., Mole, T. B., Banca, P., Porter, L., Morris, L., Mitchell, S., Lapa, T. R., Karr, J., Harrison, N. A., Potenza, M. N., & Irvine (2014). Neural correlates of sexual cue reactivity in individuals with and without compulsive sexual behaviors. *PLoS One*, 9(7), 1-10.
26. Wegmann, E., Ostendorf, S., & Brand, M. (2018). Is it beneficial to use internet-communication for escaping from boredom? Boredom proneness interacts with cue-induced craving and avoidance expectancies in explaining symptoms of internet-communication disorder. *PLoS ONE* 13(4).
27. Wilson, G. (2016) Eliminate chronic internet pornography use to reveal its effects. *The Turkish Journal on Addiction*, 3(2).
28. Zillmann, D., & Bryant, J. (1988). Pornography's impact on sexual satisfaction. *Journal of Applied Social Psychology*, 18, 438-453.