CYBERPORNOGRAPHY USE AND PSYCHOSEXUAL HEALTH AMONG EMERGING ADULTS IN MALAYSIA

TAN SOON AUN

UNIVERSITI SAINS MALAYSIA

2023

CYBERPORNOGRAPHY USE AND PSYCHOSEXUAL HEALTH AMONG EMERGING ADULTS IN MALAYSIA

by

TAN SOON AUN

**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

August 2023

ACKNOWLEDGEMENT

It is a pleasure to express my gratitude wholeheartedly to my love, Ms Lim YanJun and my son, Tan Hang Yu, and my parents and other family members, who have been supportive, loving and caring for me all the time. Finally, I would like to thank everybody involved in the successful realization of this thesis, as well as express the apology that I could not mention them personally one by one.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Page

LIST OF ABBREVIATIONS

ACE	Antecedents-Context-Effects model
AVE	Average Variance Extracted
BSCS	Brief Self-Control Scale
CB-SEM	Covariance-Based Structural Equation Modelling
CCA	Confirmatory Component Analysis
CESD	Center for Epidemiologic Studies Depression Scale
CFA	Confirmatory Factor Analysis
CI	Confidence Interval
CR	Composite Reliability
DASS	Depression, Anxiety and Stress Scale
DSMM	Differential Susceptibility to Media Effect
DVD	Digital Video Disc
GAD	Generalized Anxiety Disorder
HIV/STD	Human Immunodeficiency Virus/ Sexually transmitted diseases
HTMT	heterotrait-monotrait
IBM-SPSS	IBM Statistical Package for Social Science
IPD	Internet Pornography-viewing Disorder
JEPeM	*Jawatankuasa Etika Penyelidikan (Manusia)*
K10, K6	Kessler Psychological Distress Scale
MCMC	Malaysian Communications and Multimedia Commission
MSM	Men who have Sex with Men
MSSCQ	Multidimensional Sexual Self-Concept Questionnaire
OSA	Online Sexual Activity
PBS	Public Broadcasting Service
PCI	Pornography Consumption Inventory
PD	Panic Disorder
PLS-SEM	Partial Least Squares – Structural Equation Modelling
PSS	Perceived Stress Scale
PTSD	Post-Traumatic Stress Disorder
SAD	Social Anxiety Disorder
SAT	Situational Action Theory
SCMS	Self-Control and Self-Management Scale
SCS	Self-Control Schedule
SEIM	Sexually Explicit Internet Materials/ Sexually Explicit Internet Media
SEM	Structural Equation Modelling
SEMs	Sexually Explicit Materials
SES	Sexual Esteem Scale
SES-SF	Sexual Esteem Scale-Short Form
SRS	Sexual Resourcefulness Scale
SSEI-SF	Sexual Self-Esteem Inventory-Short form
SSEI-W	Sexual Self-Esteem Inventory for Women
STDs	sexually transmitted diseases
STIs	sexually transmitted infections
VCD	Compact Disc Digital Video
VIF	Variance Inflation Factor
WHO	World Health Organization

LIST OF APPENDICES

PORNOGRAFI SIBER DAN KESIHATAN PSIKOSEKSUAL DALAM KALANGAN DEWASA PERALIHAN DI MALAYSIA

ABSTRAK

Kemajuan teknologi Internet telah mewujudkan cara mudah untuk golongan muda menerokai seksualiti secara dalam talian, khususnya melalui pornografi siber. Literatur sedia ada menunjukkan dapatan yang bercampur mengenai hubungan antara penggunaan pornografi siber dengan kesannya terhadap kesihatan psikoseksual. Oleh itu, kajian ini meneliti perkaitan antara motivasi, penggunaan pornografi siber dan kesihatan psikoseksual (harga diri seksual dan tekanan psikologi). Kajian ini juga menerokai peranan pengantara persepsi realisme dan kegunaan pornografi siber dan peranan penyederhana kawalan kendiri (disiplin diri dan kawalan impuls) dalam perkaitan antara penggunaan pornografi siber dengan kesihatan psikoseksual. Kajian kuantitatif keratan rentas ini melibatkan 663 orang pengguna pornografi siber (M_{Umur} = 23.57; SD_{Umur} = 2.75). Soal selidik dalam talian dengan menggunakan *Qualtrics* digunakan untuk mengumpul data kajian. Pembolehubah kajian diukur dengan menggunakan subskala harga diri seksual dalam Soal Selidik Konsep Kendiri Seksual Pelbagai Dimensi, Skala Tekanan Psikologi Kessler, Skala Kawalan Kendiri Ringkas, Inventori Penggunaan Pornografi, Skala Realisme bagi Kegunaan Bahan Eksplisit Seksual Internet. Data kajian dianalisis dengan menggunakan IBM-SPSS Versi 26 dan *Partial Least Squares – Structural Equation Modelling* (PLS-SEM). Ringkasnya, penggunaan pornografi siber dalam kalangan peserta dewasa peralihan adalah sederhana. Dapatan kajian juga menunjukkan bahawa keseronokan seksual, rasa ingin tahu seksual, pencarian keseronokan dan pengelakan emosi merupakan motivasi untuk

penggunaan pornografi siber. Terdapat perbezaan jantina dalam motivasi dan penggunaan pornografi siber. Kajian mendapati bahawa jantina, keseronokan seksual, pengelakan emosi, dan umur mempunyai perkaitan signifikan dengan penggunaan pornografi siber. Selain itu, persepsi kegunaan, tetapi bukan persepsi realisme, merupakan pengantara signifikan dalam perkaitan antara penggunaan pornografi siber dengan kesihatan psikoseksual. Disiplin diri, tetapi bukan kawalan impuls, menyederhanakan secara signifikan perkaitan antara penggunaan pornografi siber dengan harga diri seksual. Dapatan kajian ini memberikan penjelasan awal tentang perkaitan antara motivasi, penggunaan pornografi siber dan kesihatan psikoseksual, terutamanya bagi dewasa peralihan. Ia mencadangkan bahawa dewasa peralihan harus didedahkan kepada program literasi pornografi untuk pencegahan daripada penggunaan pornografi siber yang berisiko.

CYBERPORNOGRAPHY USE AND PSYCHOSEXUAL HEALTH AMONG EMERGING ADULTS IN MALAYSIA

ABSTRACT

The advancement of Internet-enabled technologies has created a convenient avenue for young people to explore sexuality online, specifically through cyberpornography. The literature has shown mixed findings on the link between cyberpornography use and its effects on psychosexual health. Thus, the present study examined associations between motivations, cyberpornography use, and psychosexual health (sexual self-esteem and psychological distress). The study also explored the mediating role of perceived realism and utility and the moderating role of trait self-control (self-discipline and impulse control) in the direct association between cyberpornography use and psychosexual health. This cross-sectional quantitative study involved 663 self-identified cyberpornography users (M_{age} = 23.57; SD_{Age} = 2.75). An online survey using Qualtrics was used to collect the study's data. The study variables were measured using the sexual esteem subscale of the Multidimensional Sexual Self-Concept Questionnaire, Kessler Psychological Distress Scale, Brief Self-Control Scale, Pornography Consumption Inventory, and Perceived Realism of Sexually Explicit Internet Materials Scale. This data was analysed using IBM-SPSS Version 26, Partial Least Squares – Structural Equation Modelling (PLS-SEM). In sum, cyberpornography use among the emerging adult participants was moderate. The study's results also indicated that sexual pleasure, sexual curiosity, excitement seeking, and emotional avoidance were the motivations for cyberpornography use. Gender differences were found in motivations and cyberpornography use. The study found

that gender, sexual pleasure, emotional avoidance, and age were significantly associated with cyberpornography use. In addition, perceived utility, but not perceived realism, significantly mediated the associations between cyberpornography use and psychosexual health. Self-discipline, not impulse control, significantly moderated the association between cyberpornography use and sexual self-esteem. These findings are preliminary explanations for the associations between motivations, cyberpornography use, and psychosexual health, particularly for emerging adults. They suggest that emerging adults should be exposed to porn literacy programmes to prevent them from engaging in at-risk cyberpornography use.

CHAPTER 1

INTRODUCTION

1.1   Overview

The first chapter of this thesis provides a background of cyberpornography use and psychosexual health among emerging adults in Malaysia. It is followed by a problem statement, highlighting issues related to the topic. This is followed by research questions and research objectives. This chapter continues by discussing the significance of the study and ends with a list of definitions of terms relevant to the study.

1.2   Background of the Study

The advancement of Internet-enabled technologies, such as mobile smartphones, has created a convenient space for emerging adults to access cyberpornography. However, excessive and misuse of cyberpornography may lead to poor psychosexual health (Wéry et al., 2016). Specifically, emerging adults turn to cyberpornography for sexual gratification and information about sexual norms and knowledge as part of their sexual socialization tools (Bradford et al., 2019; Sun et al., 2016; Wright et al., 2019a). Unhealthy usage of cyberpornography creates a false expectation about sexuality that leads to a myriad of issues, such as low sexual self-esteem and poor mental health (Wéry et al., 2016). Thus, the present study explores the nature of cyberpornography usage among emerging adults.

Emerging adulthood corresponds to the period in which most people are sexually active or get married (Santrock, 2008, pg. 414-441). Sexual development is

highly dependent on individuals' sexual socialization that provides a reference to their sexual decision (Tan & Gun, 2018). Sexual socialization agents such as parents, peers, and media are considered the most significant environmental factors guiding individuals' sexual development (Vandenbosch, 2018). In many cultures, parents are weak sexual socialisation references for their children. This is evident among Asian parents, who seldom communicate about sex with their children as a result of their conservative norms and the practice of treating sex as a taboo (i.e., Tan & Gan, 2018). The lack of comprehensive sex education also narrows the resources that youth can refer to, ultimately leading them to access information via the Internet (Ali et al., 2021; Soleymani et al., 2015; Khalaf et al., 2014). Thus, youths tend to obtain sex information from other sources, such as media and peers. Past studies also noted that youths turn to media and peers for sex-related information (Landry et al., 2017; Tan et al., 2018). However, compared to peers, Internet media, such as cyberpornography in this digital age, has become the primary source of information for emerging adults (Anderson et al., 2020).

The advancement of technology has transformed pornography materials from traditional print materials (i.e., books, magazines, Compact Disc Digital Video (VCD), and Digital Video Disc (DVD)) to virtual online materials (i.e., cyberpornography). The reported prevalence of cyberpornography was in the range of 74.5% to 87% (Ali et al., 2021; Goh et al., 2023; Lim et al., 2017) has also been regarded as the primary source of sex information for young people (Bradford et al., 2019; Sun et al., 2016; Wright et al., 2019). A recent review by Pornhub Insights (2019) revealed that the porn site received 42 billion visits in 2019, with an average of 115 million visits a day worldwide. Pornhub reported an increase of 8.7 billion searches compared to the year 2018. Besides, the average visit duration has increased

from 15 sec to 10 min 28 sec per visit worldwide in 2019 (Pornhub Insights, 2019).

The nature of the Internet is free, easy, and privately accessible, which makes

cyberpornography popular, especially the lack of feeling of shame and

embarrassment (Dwulit & Rzymski, 2019). Furthermore, the anonymity of the

Internet platform assures the privacy of the user. This condition has added value with

the creation of mobile smartphones that allow access to the Internet anywhere and

anytime and make access to cyberpornography easy (Denney & Tewksbury, 2017).

A total of 76.6% of users used mobile phones as a device to visit porn sites (Pornhub

Insights, 2019). Besides, cyberpornography presents less physical and social danger

than direct personal interaction and supports communication about sexuality in a

safer place without exposure to identity or leaving the comfort of home (Harper &

Hodgins, 2016). The conveniences offered by this platform also provide a private

and concealed space for an individual to surf the Internet, gather materials, and fulfil

their sexual curiosity and compulsivity.

Few studies have specifically attempted to understand people's needs or

motivations driving cyberpornography use (Boies, 2002; Paul & Shim, 2008; Reid et

al., 2011). It is assumed that an individual's choices and consumption of specific

media and content may be strongly associated with their motivations to satisfy

specific needs, such as the need for information (Hutagalung, 2017). Using

pornography to manage one's emotions is a reason to use pornography in general

(Paul & Shim, 2008; Reid et al., 2011). Reid et al. (2011) added three more

dimensions to factors of cyberpornography: sexual pressure, sexual curiosity, and

excitement seeking. Other studies have added the use of cyberpornography for

normative behavioural validation (i.e., behavioural checking to conform and

compliance with the norm; Bleakley et al., 2008; Mead et al., 2014), development of

sexual identity (McCormack & Wignall, 2017), learning about sexual positions and acts (McCormack & Wignall, 2017; Rothman et al., 2015) and as the information-gathering tool (Hutagalung, 2017; McCormack & Wignall, 2017; Rothman et al., 2015). Driven by different motivations, cyberpornography has negative and positive consequences.

A large body of social-psychological research focusing on cyberpornography usage is linked to body dissatisfaction (Goldsmith et al., 2017; Komarnicky et al., 2019; Skoda & Pedersen, 2019), lower sexual self-esteem (Kvalem et al., 2016; Sun et al., 2016; Wilt et al., 2016), risky sexual behaviour (Donevan & Mattenbo, 2017; Peter & Valkenburg, 2016), sexual arousal (Laier & Brand, 2017), premarital pregnancy (Siti Haidah et al., 2017), sexual violence/aggression (Stanley et al., 2016; Valkenburg et al., 2016; Wright et al., 2016), stronger gender-stereotyping attitude (Maas & Dewey, 2018; Peter & Valkenburg, 2016; Stanley et al., 2016), lower sexual/relationship/marital satisfaction (Ferron et al., 2017; Pizzol et al., 2016), and psychological distress (Bradley et al., 2016; Harper & Hodgins, 2016; Laier & Brand, 2017). However, more recent literature has highlighted the positive benefits of the use of cyberpornography, such as promoting intimacy and romantic relationships (Arikewuyo et al., 2019; Daspe et al., 2018; Kohut et al., 2017), developing sexual identity (McCormack & Wignall, 2017), and improving marital satisfaction (Ferron et al., 2017).

Trait self-control could potentially moderate the association between cyberpornography use and psychosexual health. Limited past studies have shown the possible role of trait self-control, specifically its subdimension of self-discipline and impulse control, in the associations between cyberpornography use and negative attitudes and behaviour variables in several life domains (Boyraz et al., 2019; Duffy

et al., 2016; Wéry & Bilieux, 2015). Hence, people with low self-control tend to report varied sexual behaviour, such as infidelity (Gailliot & Baumeister, 2007), risky sex behaviour (Malouf et al., 2014) and illicit sexual behaviour (Love, 2006). Therefore, self-discipline and impulse control could moderate the associations between cyberpornography use and psychosexual health.

Apart from personal control, the perceived realism and utility of cyberpornography could play a role in the association between cyberpornography use and psychosexual health (i.e., Peter & Valkenburg, 2006; 2010; Vega & Malamuth, 2007). Notably, individuals are more likely to attend to or model certain attitudes and behaviour when they believe the medium conveys real and useful messages (Bandura, 1994). Meanwhile, the model of Differential Susceptibility to Media Effects (DSMM; Valkenburg & Peter, 2013) supports the indirect association of media use (i.e., cyberpornography) and media effect (i.e., psychosexual health) via media users' cognitve response state (i.e., perceived realism and utility). Therefore, it is plausible that the mediating role of perceived realism and utility of cyberpornography use exists in the associations between cyberpornography use and psychosexual health.

1.3   Problem Statement

The usage of cyberpornography poses several societal problems and highlights a literature gap in sexual health studies, especially among Malaysian emerging adults. The first part of this section presents the practical problems of cyberpornography usage with the support of statistical evidence. The second part of this section outlines the literature gaps, consisting of several main domains: 1)

contextual limitation; 2) unit of analysis; 3) connection of variables; and 4) expansion of the existing literature.

1.3.1 Practical Problems

Recent data on cyberpornography use in Malaysia is concerning. Empirical studies in Malaysia found high prevalence of 74.5% to 81.2% of lifetime pornography exposure among young adults in this country (Ali et al., 2021; Goh et al., 2023). Both studies also indicated that males tend to use cyberpornography at an earlier age and more frequently than females.

In the Malaysian constitution, Malaysian law (see Section 292 of the Penal Code) strictly prohibits the uploading and downloading of pornographic material, but recent data showed increased cyberpornography use among Malaysians (Esmail, 2018; Shah, 2018). In an interview with Assistant Commissioner Ong Chin Lan, the Principle Assistant Director of the Sexual, Women, and Child Investigation Division (D11), it was revealed that Royal Malaysia Police retrieved 20,000 IP addresses in Malaysia which actively engaged in certain uploading and downloading of explicit images, and forage of minors based on the record provided by Dutch police (Shah, 2018). Besides that, the Malaysian Communications and Multimedia Commission (MCMC) network security has blocked 4,318 pornographic websites since 2015, with data updated until October 2018 (Esmail, 2018). Malaysians are also the 19th world active pornography searchers, with an average of 22,000 searches daily (Badron, 2015). With the statistical evidence presented above, one may foresee emerging adults in Malaysia being the primary consumers of cyberpornography, causing them to experience the effects of cyberpornography consumption.

1.3.2   Knowledge Gaps

The literature reveals several knowledge gaps regarding the depth and scope of research on cyberpornography. First, there is limited empirical information concerning cyberpornography use in the Malaysian context. The existing literature on cyberpornography studies has been well-established in western societies, but it is not the same in the Asian context. Thus far, only one published study conducted in the ASEAN investigated the self-perceived effects of pornography use among Indonesian University students (Mulya & Hald, 2014) and one study published on Internet pornography use amongst young people in Malaysia with the role of gender and perceived realism (Ali et al., 2021). Meanwhile, Malaysia being a sexually conservative society, could pose a different level of acceptance, mentality, and impact on the issues related to cyberpornography use. Given the rising trend of cyberpornography usage in Malaysia with the accompanying technological advancement, it is time to better understand cyberpornography use and its associations with psychosexual health, particularly among Malaysian emerging adult respondents.

Most past studies heavily focused on men in cyberpornography and less documented women's usage. However, recent statistics indicate that cyberpornography users are no longer only males and women are found to be heavy users (Albakri, 2017). The 2019 annual report presented by Pornhub Insights (2019) found that the proportion of female visitors grew from 29% to 32% in 2018 worldwide. This is further substantiated by the user statistics of Pornhub, a pornography site, which reported that 84% of Malaysian women users are most likely to access porn on their mobile phones compared to only 66% of men (Albakri, 2017). Therefore, this study aimed to investigate men's and women's pornography

use instead of focusing on either. Also, this study examined gender differences to identify their patterns in cyberpornography use and motivations for cyberpornography use.

Just as little focus was given to women pornography users, numerous past studies on cyberpornography usage had only focused on adolescents' and adults' cyberpornography usage and their psychosexual health, with very few targeting emerging adults (Laier & Brand, 2017; Ortiz et al., 2016; Tan & Gun, 2018). According to Rasmussen et al. (2016), emerging adults are the largest consumers of cyberpornography. The phase of continual exploration during emerging adulthood, especially in psychosexual development, is deemed critical. In their efforts to develop sexual identity and fulfil sexual curiosity, cyberpornography provides opportunities for such exploration (McCormack & Wignall, 2017). Therefore, more rigorous investigations on the association between cyberpornography use and psychosexual health among emerging adults are warranted. As such, this study focused on emerging adults as the unit of analysis to provide more extensive statistical evidence in enriching the knowledge in the field.

In addition to the lack of literature on emerging adults' cyberpornography use, the motivation for cyberpornography use is not well-researched. Most existing literature was based on the qualitative method and showed mixed results on the motives underlying cyberpornography use. The existing ideas on motivations for cyberpornography use introduced by Paul and Shim (2008) and Reid et al. (2011) and the existing research are less conducive to reflecting the motives of Malaysians' cyberpornography use. Since no such study exists in Malaysia, it is of great interest to explore Malaysian emerging adult respondents' perceived motivations and their unique association with cyberpornography use.

Past studies, mainly from Western countries, posit inconsistent results in the association between cyberpornography and sexual self-esteem (e.g., Kvalem et al., 2016; Sun et al., 2016; Wilt et al., 2016) and psychological distress (e.g., Bradley et al., 2016; Harper & Hodgins, 2016; Laier & Brand, 2017). Also, the growing body of literature has primarily emphasized the harmful nature of cyberpornography but fails to differentiate the consequences between the casual use and excessive use of cyberpornography (Harper & Hodgins, 2016; Laier & Brand, 2017). However, recently, a systematic review of the positive aspect of pornography on sexual health by Hakkim et al. (2022) summarized that occasional but not compulsive use is associated with positive outcomes such as sexual comfort, self-acceptance and reduced level of anxiety, shame and guilt over sexual behaviour, increase arousal and orgasm responses interest in sex and more sexual experimentation. This inconsistent results leave the need to verify further the associations between cyberpornography use and psychosexual health, particularly among emerging adult respondents in Malaysia.

The literature has documented significant associations between cyberpornography use and various psychosexual health variables (i.e., sexual self-esteem and psychological distress), leaving the underlying mechanism unexplored. Built on the premise of the Differential Susceptibility to Media Model (DSMM, Valkenburg & Peter, 2013), it is theoretically explained that media use and media effects are indirect via cognitive states, such as perceived realism and utility. However, most studies focused only on direct associations, with little attention to the possible underlying process of perceived realism and utility of cyberpornography use (Peter & Valkenburg, 2006; 2010). Some but limited existing literature has supported the mediating role of perceived realism and utility of cyberpornography use, mainly

focused on adolescent samples. However, the association between variables is distinctively different from the present study. Thus, the present study aimed to explore the indirect association between cyberpornography use and psychosexual health by considering the role of perceived realism and utility of cyberpornography use.

Like the limited exploration of the underlying variable in explaining the associations between cyberpornography use and psychosexual health, limited studies have included moderators. It is plausible for the association between cyberpornography use and psychosexual health to be moderated by trait self-control (i.e., self-discipline and impulse control). Although some recent studies have examined the aspect of trait self-control in the association between cyberpornography use and other variables, the results are generally exploratory (Duffy et al., 2016; Wéry & Bilieux, 2015). In line with the assumption of the strength model of self-control (Baumeister et al., 2007) and various literature (e.g., Boyraz et al., 2019; Tangney et al., 2004), self-control is viewed as willpower that can buffer the effect of cyberpornography use and psychosexual health consequences. The present study particularly would like to see if individuals with high trait self-control would not be affected easily by their cyberpornography use and its effects. Therefore, this study examined the circumstances under which trait self-control could buffer the direct associations between cyberpornography use and psychosexual health.

1.4   Research Questions

Based on the statements of the problem, the following research questions emerge:

1. What is the level of cyberpornography use among Malaysian emerging adult respondents in this study?

2. Is there a gender difference in cyberpornography use among Malaysian emerging adult respondents in this study?

3. What are the motivations for cyberpornography use among Malaysian emerging adult respondents in this study?

4. Are there gender differences in motivations for cyberpornography use among Malaysian emerging adult respondents in this study?

5. Are motivations for cyberpornography use associated with subsequent cyberpornography use among Malaysian emerging adult respondents in this study by controlling for respondents' gender and age?

6. Is there an indirect effect of cyberpornography use on psychosexual health (sexual self-esteem and psychological distress) via perceived realism and utility of cyberpornography among Malaysian emerging adult respondents in this study by controlling for respondents' gender and age?

7. Is there a moderating role of trait self-control (self-discipline and impulse control) in the association between cyberpornography use and psychosexual health among Malaysian emerging adult respondents in this study by controlling for respondents' gender and age?

1.5   Research Objectives

This study intended to examine the associations between motivations for cyberpornography use, cyberpornography use, and psychosexual health (sexual self-esteem & psychological distress) by considering the moderating effect of trait self-control (self-discipline & impulse control) and the underlying mechanisms via

11

perceived realism and utility of cyberpornography among Malaysian emerging adult respondents in this study. Gender and age serve as control variables of the study. Besides, this study also examines gender differences in cyberpornography use and motivations for cyberpornography use. The section underlines the specific objectives of the present study as follows:

This study aimed to:

1. determine the level of cyberpornography use among Malaysian emerging adult respondents.

2. identify gender differences in cyberpornography use among Malaysian emerging adult respondents.

3. identify the motivations for cyberpornography use among Malaysian emerging adult respondents.

4. examine gender differences in motivations for cyberpornography use among Malaysian emerging adult respondents.

5. examine the association between each motivation for cyberpornography use and cyberpornography use among Malaysian emerging adult respondents by controlling for respondents' gender and age.

6. explore the indirect effect of cyberpornography use on psychosexual health via perceived realism and utility of cyberpornography among Malaysian emerging adult respondents by controlling for respondents' gender and age.

7. explore the moderating role of trait self-control (self-discipline and impulse control) in the associations between cyberpornography use and psychosexual health among Malaysian emerging adult respondents by controlling for respondents' gender and age.

1.6   Significance of the Study

The results of this study would provide some statistical evidence to understand the phenomenon of cyberpornography use and its associations with psychosexual health (e.g., sexual self-esteem & psychological distress) among Malaysian emerging adult respondents in this study. It would also offer better insights into understanding emerging adults' patterns of cyberpornography use and the motivations for their cyberpornography use.

This study could also provide a better overview of cyberpornography use by gender. Consistent with the existing data, a rising trend in the usage of cyberpornography can be observed among females, although males are still the primary consumer of cyberpornography.

Also, the results of the study could enrich the literature on sexual media studies specifically focused on emerging adults. This is of crucial importance as sexuality is one of the challenging life tasks that emerging adults face. They are widely treated as the vulnerable audiences of cyberpornography compared to the previous generation.

This study would illuminate the motivations for cyberpornography use among emerging adults in the Malaysian context. It is important to understand the reason behind cyberpornography use as existing literature mostly reports from a qualitative perspective, and few studies were conducted in the Malaysian context, in which cyberpornography use is illegal. Therefore, better conceptualising the motivations is important to help address possible treatment plans for those addicted to cyberpornography.

Importantly, this study addressed two research gaps on the association between cyberpornography use and psychosexual health (i.e., sexual self-esteem and

psychological distress). Firstly, while the association of cyberpornography use and other variables has been well documented, the underlying processes remain unexplored. This study explored the possible mediating role of perceived realism and utility of cyberpornography use in the association between cyberpornography use and psychosexual health. Secondly, this study explained how trait self-control could buffer the association between cyberpornography use and individuals' psychosexual health. The findings would enrich and strengthen the theoretical framework used in this study and expand the literature in this field of study.

This study is also crucial in providing statistical evidence to assist individuals, parents, educators, policymakers, and health professionals in fostering emerging adults' positive sexual health development together with the efforts to eliminate the negative consequences of cyberpornography.

1.7   Scope of the Study

This study examined the association between motivations for cyberpornography use, cyberpornography use, and psychosexual health by considering the moderating effect of trait self-control (self-discipline and impulse control) and mediating effects of perceived realism and utility of cyberpornography among Malaysian emerging adult respondents in this study. The sample of interest for this study is Malaysian emerging adults aged between 18 and 29 years old. The age range of 18 to 29 years old follows the definition derived from Arnett et al. (2015) which reflects the experience of emerging adulthood, specifically in developing countries (Arnett, 2011).

This study focused on cyberpornography use, including any sexual arousal material available online. Traditional print pornography materials were not studied.

Psychosexual health is a broad term that captures psychological and sexual health. This study only focused on two psychosexual health variables, namely sexual self-esteem and psychological distress. This study did not include other psychosexual health variables, such as sexual body esteem, sexual satisfaction, sexual behaviour and attitude, gender role attitude, etc. On top of the limited studies and inconsistent findings, sexual self-esteem (representing sexual health) and psychological distress (representing psychological health) were chosen because they are less culturally sensitive than other psychosexual outcomes, such as sexual behaviour. Besides, this study focused on trait self-control (self-discipline and impulse control) as a moderator but did not investigate sexual-specific self-control or state self-control.

1.8   Definition of Terms

This section features the conceptual and operational definition of variables or specific terms used in the study.

1.8.1   Emerging Adulthood

Conceptual definition:

An emerging adult is approximately 18 to 25 years (Arnett, 2004; 2006; 2007) or up to 29 years of age (Arnett et al., 2014). This extension of age is due to the increasing accessibility of tertiary education, delay in exposure to the workforce, and delayed marriage and parenthood, especially among those emerging adults in developing countries (Arnett, 2011). This transition stage from adolescence to adulthood involves experimentation and exploration (Arnett, 2006; 2011; Arnett et al., 2015).

There are five key aspects of emerging adulthood, including identity exploration, instability, self-focus, feeling in-between, and age of possibilities (Arnett, 2004).

Operational definition:

Emerging adults refer to the respondents aged from 18 to 29.

1.8.2 Pornography and Cyberpornography

Conceptual definition:

Pornography refers to "any kind of material aiming at creating or enhancing sexual feelings or thoughts in the recipient and, at the same time, (1) containing explicit exposure and/or descriptions of the genitals and (2) clear and explicit sexual acts such as vaginal intercourse, anal intercourse, oral sex, masturbation, bondage, etc." (Hald & Malamuth, 2008, p.616). Cyberpornography is "Internet-based sexually explicit pictures, writing, or other material whose primary purpose is to cause sexual arousal." (Wysocki, 2012, p.274).

Operational definition:

Cyberpornography use is operationalized as the use of online sexually explicit materials that enhance sexual feelings and arousal. This variable is measured based on respondents' scores on the frequency of cyberpornography use multiplied by the average time spent each time (in the past month). A higher score corresponds to more cyberpornography use.

1.8.3   Psychosexual Health

Conceptual definition:

Sexual health refers to "a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence" (WHO, 2006, p. 5). This conceptual definition of sexual health is also used to define psychosexual health, which includes a component of general well-being (Domoney, 2018).

Operational definition:

In this study, psychosexual health refers to psychological health and sexual health.Psychological health is represented by psychological distress, and sexual health, by sexual self-esteem. These two constructs were assessed by the Sexual Esteem Scale-Short Form (SES-SF; Wiederman & Allgeier, 1993) and Kessler Psychological Distress Scale (K6; Kessler et al., 2002).

1.8.4   Sexual Self-Esteem

Conceptual definition:

Sexual self-esteem is defined as "positive regard for and confidence in the capacity to experience one's sexuality in a satisfying and enjoyable way" (Snell & Papini, 1989, p256) and evaluation of sexuality that includes sexual orientation, appearance, competence, behaviour, and values (Mayers et al., 2003).

Operational definition:

Sexual self-esteem is operationalized as the self-evaluation of a sexual being. Sexual self-esteem refers to respondents' scores on the sexual esteem subscale of the Multidimensional Sexual Self-Concept Questionnaire (MSSCQ; Snell, 1995). Higher scores indicate higher sexual self-esteem.

1.8.5   Psychological Distress

Conceptual definition:

Psychological distress refers to negative emotions or feelings that affect an individual's functioning and interfere with daily activities. For example, psychological distress can result in negative feelings towards self and events (Ridner, 2004).

Operational definition:

Psychological distress is operationalized as the emotional state of a person. Psychological distress refers to respondents' scores on the Kessler Psychological Distress Scale (K6; Kessler et al., 2002). A higher score corresponds to higher psychological distress.

1.8.6   Trait Self-control

Conceptual definition:

Trait self-control is the psychological mechanism that governs and directs a person's goals (i.e., norms or standards; Carver & Scheier, 2004). According to Tangney et al. (2004), trait self-control refers to "the ability to override or change one's inner

responses, as well as to interrupt undesired behavioural tendencies (such as impulses) and refrain from acting on them." (p.274) Drawing upon the psychometric factorial structure, "trait self-control consists of two factors: 1) impulse control refers to the perceived ability to resist temptation, and 2) self-discipline refers to the ability to achieve goals." (Ferrari et al., 2009, p. 146).

Operational definition:

In this study, trait self-control is defined as the ability of internal control that directs an individual's behaviour. Trait self-control refers to respondents' scores on the seven-item, two-factor New Brief Self-Control Scale (Morean et al., 2014) comprising self-discipline and impulse control. A higher score corresponds to better self-discipline or impulse control.

1.8.7 Motivations for Cyberpornography Use

Conceptual definition:

Motivation has been defined as "the process whereby goal-directed activities are instigated and sustained" (Schunk et al., 2014, p. 5). So, the motivations for cyberpornography use refer to the process whereby Internet pornography use is initiated and sustained.

Operational definition:

Motivations for cyberpornography use is defined as the motives or intentions that direct an individual's use of cyberpornography. In this study, motivations for cyberpornography use refer to respondents' scores on the Pornography Consumption Inventory (PCI; Reid et al., 2011) on four factors: emotional avoidance, sexual

curiosity, excitement seeking, and sexual pleasure. A higher score corresponds to a higher motivation for cyberpornography use.

1.8.8   Perceived Realism and Utility of Cyberpornography Use

Conceptual definition:

Perceived realism defines the degree to of pornography is viewed to be similar to real-world sex (Peter & Valkenburg, 2010). Perceived utility implies the degree to which pornography portrays a useful source of information about sex (Peter & Valkenburg, 2010).

Operational definition:

Perceived realism and utility of cyberpornography is defined as the individual perception of cyberpornography as real-world sex and its usefulness in sexual matters. The perceived realism of cyberpornography describes by respondents' scores on the Perceived Social Realism and Utility of Sexually Explicit Internet Materials (SEIM; Peter & Valkenburg, 2010). A higher score on this scale indicates a higher perceived realism and utility of cyberpornography.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter begins with the theories of emerging adulthood and cyberpornography use. Then, a discussion on the literature and summaries of past studies relevant to this study will be presented. Also, this chapter outlines the review of instruments for each of the variables of the study. This chapter also presents the guided conceptual framework of this study. Finally, the research hypotheses are stated at the end of this chapter by incorporating the theoretical and empirical points of view.

2.2 Theories of Emerging Adulthood and Cyberpornography Use

This section outlines the four theories used in this study, namely Arnett's theory of emerging adulthood (2000), the Differential Susceptibility to Media Effects Model (DSMM; Valkenburg & Peter (2013), the strength model of self-control (Baumeister et al., 2007), and the social comparison theory (Festinger, 1954).

2.2.1 Arnett's Theory of Emerging Adulthood

Arnett (2000) refers to emerging adults as those aged 18 to 25. The age range has been extended to 29 years old, primarily when referring to individuals in developing countries (Arnett, 2011). The extended age is most probably attributed to more opportunities for tertiary education, delayed workforce participation, delayed marriage, and parenthood (Arnett et al., 2014). Emerging adulthood is not a

21

momentary shift into adult roles but a significant period in life involving changes, choices, and explorations of potential life direction (Arnett, 2000). This period of life is not universal, but culturally embedded. Arnett's (2000) theory holds that emerging adulthood is a period that appears demographically and is subjectively distinctive. It is also distinctive in the aspect of identity exploration.

The exploratory stage of emerging adulthood seems to be shaped by several factors. In this exploratory stage, demographic factors such as age, living arrangement and residential status, tertiary education, job location, and cohabitation status may contribute to it differently. Most emerging adults do not see themselves as adolescents or have entirely achieved adulthood status. Emerging adults during this stage could experience and achieve part of the task of adulthood and yet not fully achieve the status of adulthood. The personal sense of subjectivity or self-sufficiency (defined in Arnett, 1998) is highly dependent on the individual's qualities and character, such as self-responsibility, decision making ability and financial independence (Arnett, 1998).

Identity formation is a crucial feature of emerging adulthood. This feature is associated with Erikson's psychosocial/psychosexual theory (1959; 1968) which denoted that individuals in industrialized societies will experience prolonged adolescence for extended identity explorations. Moreover, adolescence which is the fifth stage of Erikson's psychosocial development theory is characterised by "Identity vs Identity Diffusion". This stage of life has been shepherded from puberty to early adulthood. This stage is identified as the years approximately between 12 and 25 years old. Erikson has mentioned seven aspects of identity consolidation as the determinant of adolescent crisis resolution. The seven aspects are time perspective, self-certainty, role experimentation, the anticipation of achievement,

sexual identity, acceptance of leadership, and the commitment to fundamental values (Brandell & Brown, 2015; Brandell & Ringel, 2007; Erikson, 1959). During this stage, individuals who can develop their psychological, emotional, and social identities tend to define their roles better culturally and sexually (Lin & Lin, 2018). In contrast, individuals who fail to develop their identities will experience confusion, low self-control, and a sense of insecurity (Lin & Lin, 2018). It is noted that Erikson (1968) does not explicitly outline the stage of emerging adulthood as an intermediate period between adolescence and, in some ways, young adulthood. However, he addressed the idea of prolonged adolescence, where individual commitments and responsibilities are delayed, and role exploration during adolescence continues throughout young adulthood.

Arnett (2004, 2015) affirms that the five features of emerging adulthood are characterized by identity exploration, experimentation of possibilities or optimism, instability (i.e., romantic relationship, work, and education), self-focus, and feeling "in-between". Notably, individuals could define the attainment of adulthood status differently based on their demographic diversity and instability. Based on the broad and narrow socialisation theory, Arnett (1995) explains the role of cultures in adopting cultural values and their impact on social and psychological development. More precisely, cultures that allow individualism and independence have so-called 'broad socialization'. Consequently, it promotes a broad range of variability in social and psychological development. In contrast, the so-called 'narrow socialization' which emphasises obedience and conformity to prescribed beliefs and behaviour limits an individual's outcome in terms of social and psychological development.

Culturally specific studies in several countries found similarities in the concept of adulthood as postulated by Arnett (2004, 2015), such as in Japan and Italy

(Crocetti et al., 2015) and African countries (Obidoa et al., 2019). However, one of the studies conducted among emerging adults in China showed slightly different findings as the respondents had perceived the responsibility to care for parents and emotional control as necessities for an adult (Nelson et al., 2013). In addition, a study in India (Seiter & Nelson, 2011), a country which is regarded as one of the collectivistic countries, also bore similar findings.

Specifically, some preliminary qualitative interview findings discovered five themes based on five Sabahan emerging adults' responses in the Malaysian context. The themes were individualism, self-control maturity, role transitions, family capacities, and social maturity (Halik et al., 2019). Another preliminary quantitative study in Malaysia found a distinctive difference between an individual's perceived adult and emerging adult statuses in two out of five emerging adulthood criteria proposed by Arnett (2015); these are: identity exploration and other-focused (Wider et al., 2015). No significant difference was found between these two sample groups in other emerging adulthood dimensions. However, research studies focusing on emerging adults in the Malaysian context are still in the infant stage, requiring more attention.

Emerging adulthood is reached when individuals leave the dependency of childhood or adolescence and are on their way to obtaining and exercising their responsibilities as adults (Arnett, 2000). In this uncertain period, emerging adults often explore possibilities as part of their identity formation in various domains of life, such as love, work, and worldviews. As a result, emerging adults seem more vulnerable. Most emerging adults would pursue their tertiary education, move out from home, and experience minimum parental supervision and monitoring. Arnett (2000) also highlighted that the period of emerging adulthood could heighten sexual-