



DETERMINANTS OF SEXTING BEHAVIOUR AMONG EMERGING  
ADULTS IN MALAYSIA

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Determinants of Sexting Behaviour Among Emerging Adults in Malaysia

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## APPROVAL FORM

This research paper attached hereto, entitled “Determinants of Sexting Behaviour Among Emerging Adults in Malaysia” prepared and submitted by “Lee Li Teng, Ong Pei Ling and Wong Yoke Ting” in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.



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Date: 4/4/2022

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### **Abstract**

Researchers have paid close attention to sexting behaviour in recent years, as various detrimental outcomes have been highlighted, such as risky sex, reputation damage, and cyberbullying. Previous research was primarily focused on young adults, and thus there are limited studies on emerging adults. Other than that, sexting research is still in its infancy, particularly in the Malaysian context. The present study employed quantitative, cross-sectional, and correlational research designs to better understand sexting behaviour and its associated factors among emerging adults, as well as the gender and relationship status disparities in sexting behaviour. As a result, a total of 197 participants ( $M = 22.76$ ,  $SD = 2.20$ ) who engaged in sexting behaviour participated in this research using the purposive sampling method. Contrary to the hypothesis of this study, the results showed that male emerging adults have higher engagement in sexting behaviour than females. All the variables were significantly correlated to sexting at the bivariate level. However, the controlled effect of age, gender, and relationship status in hierarchical linear regression revealed that only sexual intention was correlated to sexting behaviour. Therefore, the findings of this study might contribute to enriching the existing literature on sexting behaviours, and some practical implications were discussed.

*Keywords:* sexting behaviour, loneliness, sexual intention, sexual activity, the need for popularity, perceived peer pressure, emerging adults, Malaysian




DECLARATION

We declare that the material contained in this paper is the end result of our own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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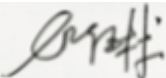
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## Chapter I

### Introduction

#### Background of study

Innovative technologies have made individuals' lives easier, especially digital media, such as technological devices or the Internet, which have become an essential part of social communication (Yu & Zheng, 2020). People use technological devices to make new friends or maintain relationships by using social media without going out and socialising. Due to the wide usage of smartphones, and particularly because more texts are being sent each day (Rice et al., 2017), adolescents might have a higher tendency and be less hesitant to participate in this digital behaviour as sexting has become more common (Madigan et al., 2018).

Additionally, Romo et al. (2017) found that adolescents who are frequent social media users have higher chances of engaging in sexting or sexual behaviour. For example, qualitative research by Mohd Muhaiyuddin et al. (2015) stated that adolescents in Malaysia perceive sexting as a routine activity, involving receiving and exchanging sexual materials, such as images or text messages with their friends using technological devices. Thus, evolution has made sexting behaviour more common among adolescents, and it undoubtedly exists in Malaysia. Previous studies are mostly done among adolescents (Vanden Abeele et al., 2014; Dake et al., 2012; del Rey et al., 2019; Gregg et al., 2018; Walrave et al., 2014). However, there was a deficiency of previous local research to support that sexting occurred among emerging adults in Malaysia. Hence, this study aimed to focus on sexting behaviour among emerging adults in Malaysia.

However, if sexting is not being handled well, individuals who sext may encounter several potential negative consequences. These negative consequences include bullying (Ojeda et al., 2019) and cyberbullying (Gómez-Guadix & Mateos-Pérez, 2019), insults

(Ringrose et al., 2013) or cyber gossip (Casas et al., 2019), especially when the sexual images or videos are spread to other parties without the permission or consent of the creator. Apart from that, it was found that girls who share their naked photos are more willing to participate in greater sexual activities, which could lead to risky sexual behaviour (Temple et al., 2012).

In order to gain a clearer understanding of sexting behaviour, it is significant to recognise the factors that promote an individual to sext. According to past studies, factors that have been studied are personality (Delevi & Weisskirch, 2013), self-esteem (Scholes-Balog et al., 2016), social competence (Bauman, 2015), and willingness to sext (van Oosten & Vandenbosch, 2017). Apart from that, sexting behaviour is influenced by two factors: personal and environmental factors. In this study, the personal factors contributing to sexting include loneliness, intention of sexual activity, and the need for popularity. Meanwhile, perceived peer pressure is the environmental factor that contributes to sexting.

Based on the issues, consequences, as well as factors being presented above, it was found that sexting behaviour has become more common among adolescents nowadays. However, the study of sexting behaviour is insufficient among emerging adults in Malaysia. Subsequently, this study intended to study the sexting behaviours among emerging adults in the Malaysian context.

### **Problem Statement**

Despite the fact that Malaysians live in a highly conservative culture in which sexting is taboo, sexting remains prevalent in the contemporary society. According to Zolkepli (2021), there are 28 million Malaysians who are active users of social media. However, the message or information that people post on social media might get leaked. For instance, there are a million Facebook users whose personal data are leaked and sold on hacker forums (Kika, 2021). Sexting will also lead to sexually explicit content being shared without any

consent (Klettke et al., 2014), as people might screenshot the content and spread it to the public. For instance, Zolkepli (2021) reported that a teenage girl had sexted with a guy on Instagram, and he asked the girl to take her clothes off during a video call. The guy took screenshots of her nude body without any notice, and she got threatened that her screenshots would leak if she did not follow his instructions (Zolkepli, 2021). In short, sexting is a risky behaviour as one's digital footprint would be saved indefinitely rather than the information being deleted (Drouin et al., 2015), and people would share the sexual images with others without asking.

According to the Western research by Garcia et al. (2016), most adults reported receiving sexual text messages and images from others, sending their sexual text messages and images to others, and sharing others' nude photos without their permission as well. Garcia et al. (2016) also mentioned that although the results show intense discomfort with unauthorised sharing of sexual content, nearly half of the participants reported that they had shared explicit photos that were received from others without their consent, and this shows that the sharing of sexual content has become a trend. The public should be concerned about this issue as sharing without consent has violated the sender's privacy, although it may not be considered a crime (Garcia et al., 2016).

The COVID-19 pandemic has shifted offline sexual behaviour to online sexting behaviour, but the study on sexting behaviour during the COVID-19 period remains scarce. As the COVID-19 pandemic spreads worldwide, self-isolation, quarantine, social distancing, and lockdowns have become critical for containing the pandemic (Zattoni et al., 2020). To control the speed of infection of COVID-19, a national lockdown, also known as Movement Control Order (MCO), was enforced by the Malaysian government from March 2020 until the present. Hence, the Malaysian government banned the citizens from leaving home, except for those front liners and individuals who work in essential work sectors. Consequently,

human behaviours have altered from offline to online (Vargo et al., 2020), and it was found that there was a rise in sexting during the COVID-19 pandemic (Alpalhão & Filipe, 2020; Lindberg et al., 2020). Individuals are more likely to utilise digital devices more often as most individuals are isolated from their friends, families, or even significant others (Thomas et al., 2021). According to Zattoni et al. (2020), individuals tend to discover creative ways to spend their time at home during lockdowns or quarantine periods to prevent the COVID-19 virus from spreading. In short, sexting has become a common text behaviour during the COVID-19 pandemic as individuals tend to engage in sexting because they are prohibited from leaving their homes. Thus, this study aimed to broaden the understanding of sexting behaviours among Malaysian emerging adults.

Until now, there are numerous studies focused on sexting behaviour, but most of the studies mainly focus on adolescents (Vanden Abeele et al., 2014; Dake et al., 2012; del Rey et al., 2019; Gregg et al., 2018; Walrave et al., 2014). The research on sexting behaviour among emerging adults is limited. It is essential to study sexting behaviour in emerging adulthood as it is one of the developmental stages in which individuals have a higher tendency to make risky decisions (Steinberg, 2008). Although some previous studies have focused on emerging adults' sexting behaviour, it has only focused on undergraduate students (Dir, 2012; Dourin et al., 2015; Hudson & Marshall, 2017) or college students (Yu & Zheng, 2020). Additionally, Mohd Muhaiyuddin et al. (2015) conducted qualitative research which focused on identifying the definition of sexting in a local context. Still, the sample mainly focused on adolescents as well. Moreover, the variable focused on perceived peer pressure lacks an emerging adult's sample from previous studies. According to Keyzers et al. (2020), it can be proved that perceived peer pressure has an essential role in influencing the behaviours of people, but the research on peer pressure (i.e., Adimora et al., 2018) has not been extended to include emerging adult samples. Hence, the present study aimed to

understand the sexting behaviour among emerging adults and is not limited to undergraduate or college students.

The inconsistent result obtained on gender differences was also a concern in the literature. Several past studies showed inconsistent results between gender differences and sexting behaviour among adolescents (Bailey & Hanna, 2011; Lenhart, 2009; Reynolds et al., 2014; Winkelmann et al., 2014). However, there is a lack of studies on gender differences among emerging adults in Malaysia. The findings only concluded that males mostly enjoyed sexting behaviour while females experienced negativity and humiliation the most (Reynolds et al., 2014). Thus, the present study aimed to examine the gender differences in sexting behaviour among Malaysian emerging adults.

Past studies focusing on the relationship status of sexting behaviour were mainly carried out in the Western context such as the Canadian context (Samimi & Alderson, 2014) and the Italian context (Bianchi et al., 2021). Furthermore, the studies that focus on loneliness in sexting behaviour are limited in the Malaysian context. For instance, Yu and Zheng (2020) study loneliness and the number of hook-up partners as mediators of sexting behaviour and emotional reactions after hook-up in China. In addition, Lehmiller et al. (2020) conducted research to study the changes in sexual activities of participants during COVID-19, but most of the participants (1144 out of 1559) were from the United States (Lehmiller et al., 2020). Thus, the results may only apply to specific populations. As for the intention of sexual activity, most of the studies were carried out in Iranian (Ghorashi, 2019), Belgium (van Ouytsel et al., 2018), and the United States (Ybarra & Mitchell, 2014). Moreover, merely a few studies focus on the need for popularity in the Malaysian context. Previous studies mainly on the Western context, such as Belgium (Walrave et al., 2015), Spain (Casas et al., 2019), and the U.S. (Lenhart, 2009). There are insufficient findings in the Malaysian context.

Therefore, the present study explores further in the Malaysian context as it can contribute to future studies on sexting behaviour among emerging adults in Malaysia.

### **Research Questions**

1. Are there any gender differences in sexting behaviours among emerging adults in Malaysia?
2. Does relationship status differ in sexting behaviours among emerging adults in Malaysia?
3. Does loneliness associate with sexting behaviours among emerging adults in Malaysia?
4. Does intention of sexual activity associate with sexting behaviours among emerging adults in Malaysia?
5. Does the need for popularity associated with sexting behaviours among emerging adults in Malaysia?
6. Does perceived peer pressure associated with sexting behaviours among emerging adults in Malaysia?

### **Research Objectives**

1. To investigate gender differences in sexting behaviour among emerging adults in Malaysia.
2. To identify the relationship status differences (i.e., single vs. in a relationship) in sexting behaviour among emerging adults in Malaysia.
3. To determine the association between loneliness and sexting behaviour among emerging adults in Malaysia.

4. To determine the association between the intention of sexual activity and sexting behaviour among emerging adults in Malaysia.
5. To determine the association between the need for popularity and sexting behaviour among emerging adults in Malaysia.
6. To determine the association between perceived peer pressure and sexting behaviour among emerging adults in Malaysia.

### **Hypotheses**

H<sub>1</sub>: Male emerging adults are more likely to engage in sexting behaviour.

H<sub>2</sub>: There is a difference in sexting behaviour between emerging adults who are in a relationship and single.

H<sub>3</sub>: Emerging adults who are high in loneliness are more likely to engage in sexting behaviour.

H<sub>4</sub>: Emerging adults who are high in the intention of sexual activity are more likely to engage in sexting behaviour.

H<sub>5</sub>: Emerging adults who are high in need of popularity are more likely to engage in sexting behaviour.

H<sub>6</sub>: Emerging adults high in perceived peer pressure are more likely to engage in sexting behaviour.



**Significance of study**

The results of the study could potentially benefit the policymakers and practitioners to draw effective yet preventive intervention programmes tailored to emerging adults dealing with the issue of sexting. As most emerging adults lack awareness of sexting behaviour, they might not recognise the impact. Hence, the results are able to enrich the knowledge gap by filling in the information. For instance, the results are able to contribute to the domain of sexting behaviour among emerging adults in the Malaysian context.

The findings of this study are expected to contribute to filling in the literature gap concerning sexting behaviour in the Malaysian context, with a particular focus on emerging adults. In addition, this study would also like to verify the association between variables, which has been found inconsistent in previous findings. The results of this study are also expected to contribute some reliable sources and findings to the researchers and psychology field in the future. Therefore, the present study is interested in investigating the determinants of sexting behaviour, including loneliness, intentions of sexual activity, need for popularity, and perceived peer pressure.

### **Definitions of Terms**

**Sexting behaviour.** Conceptual definition: Sexting is the exchange or sharing of sexually explicit content with others through technological devices such as smartphones, tablets, or laptops. (van Ouytsel et al., 2015).

Operational definition: Sexting behaviour will be assessed by Sexting Behaviour Scale (Dir, 2012). Higher scores imply a higher level of engagement in sexting.

**Emerging adults.** Conceptual definition: Emerging adults are adults who are in the transition from adolescence to young adulthood between 18 to 29 years old (Arnett et al., 2014).

Operational definition: Respondents whose biological ages are between 18 to 29 years old.

**Intentions of Sexual Activity.** Conceptual definition: Intentions of sexual activity is defined as an individual's motive or planning to take action towards sexual intercourse in the future (Lindgren et al., 2008).

Operational definition: The Youth Sexual Intention Questionnaire (YSI-Q) was developed and will be used to evaluate sexual intention or intention of sexual activity among Malaysian teenagers (Muhammad et al., 2017). Higher scores in every component showed higher levels of sexual intention, perceived social norms, permissive attitude, and perceived self-efficacy.

**Loneliness.** Conceptual Definition: Loneliness refers to a state of emotional isolation when an individual's social relationships are unsatisfactory. This sense of loneliness can be alleviated through socialisation or even social interaction (Shen & Wang, 2019).

**Operational Definition:** The eight-item version of the UCLA Loneliness Scale (ULS-8) (Hays & DiMatteo, 1987) will be utilised to measure loneliness. Higher scores imply higher levels of loneliness.

**Need for popularity.** **Conceptual Definition:** Need for popularity (NfP) is defined as the motivation to perform specific actions in order to seem popular (Utz et al., 2012).

**Operational Definition:** Need for popularity (NfP) will be measured by the Need for Popularity Scale (Santor et al., 2000; Utz et al., 2012). Higher scores imply a higher need for popularity.

**Perceived peer pressure.** **Conceptual Definition:** Perceived peer pressure is the degree to which individuals portray peer pressure from their peers to get involved in activities that they do not inevitably wish to play an active role in (Vanden Abeele et al., 2014).

**Operational Definition:** Perceived peer pressure will be evaluated by the subscale of Network of Relations Inventory–Relational Quality Version (NRI-RQV), which was proposed by Buhrmeister (1992). Peer pressure from peers, in general, was evaluated in place of a single friend in particular (Vanden Abeele et al., 2014). Higher scores imply a higher perceived peer pressure.

## Chapter II

### Literature Review

#### Introduction

Chapter two discussed the literature related to research objectives as stated in the previous chapter. The discussion mainly concentrated on loneliness, the intention of sexual activity, the need for popularity, and perceived peer pressure that was related to sexting behaviour. At the end of this chapter, the theoretical and conceptual frameworks were displayed as well.

#### Sexting Behaviour

Sexting refers to exchanging, forwarding, and sending sexual content (text, videos, and images) using technological devices (Chalfen, 2009). Sexual intercourse is a trendy way to enjoy leisure as it can satisfy physical needs and impacts physical and psychological well-being (Berdychevsky & Carr, 2020). However, the pandemic lockdown has limited the chances of sexual activities with partners or hook-ups with strangers; therefore, sexting acts as a substitution for it (Lehmiller et al., 2020). For instance, those living alone during lockdown will have a higher rate of engaging in sexting than those living with partners as lockdown has limited physical sexual activities (Lehmiller et al., 2020).

As mentioned in the literature, the rate of sexting behaviour is higher among adults, especially during a pandemic in the United States (i.e., Lehmiller et al., 2020). Additionally, Thang et al. (2017) also mentioned that it is hard to find literature on sexting in the Malaysian context. Therefore, the present study intended to find out the significant association between loneliness, the intention of sexual activities, the need for popularity, perceived peer pressure, and sexting behaviour.

### **Loneliness and Sexting Behaviour**

Research findings supported that people who have a high level of loneliness have a higher tendency to engage in sexting behaviour. For instance, Common Sense Media (2020) found that adolescents reported themselves as ‘more lonely than usual’ during the pandemic. de Oliveira and Carvalho (2020) also found that people are more likely to experience boredom during the pandemic lockdown. Boredom in excess could be pathological; therefore, certain people are more prone to it and experience varying degrees of loneliness (Fenichel, 1952, as cited in de Oliveira & Carvalho, 2020). Thus, boredom and loneliness are related to the increase in sexual arousal. The results from Döring (2020) also mentioned that when people are socially deprived, people may have had more desires to satisfy sexual pleasure. Hence, Cooper et al. (2016) stated that sexual arousal was a significant antecedent of sexting activities.

Additionally, Yu and Zheng (2020) studied the association between loneliness and the number of hook-up partners as a mediator of sexting behaviour and emotional reaction after hook-up among college students. The results stated that young adults who are reported to have higher loneliness would initiate to engage in sexting with strangers and even have more hook-up experiences. The feeling of loneliness has impaired the person's decision to choose whether the behaviour is right or wrong, and the person has an ardent desire to be connected with others in a relationship; therefore, the decision to hook-up has been made (O'Sullivan & Gaines, 1998, as cited in Yu & Zheng, 2020). This means that the more hook-up partners people have, the fewer feelings of loneliness they have. Nowland et al. (2018) also stated that sexting had been perceived by young adults who have an elevated level of loneliness to increase the existing relationship they have now and as a way to find a new social connection.

It is worth noting that the feeling of loneliness during social isolation is related to the negative evaluation of the person's sex life and will trigger the urge to have sexual activities as it can release the stress that the negative feelings have brought (Ein-Dor & Hirschberger, 2012). Furthermore, Lehmiller et al. (2020) have stated that single participants have experienced more emotional fragility and loneliness. Hence, sexting behaviour can act as a substitution because the chances of having casual sex with others are limited; it also can be a coping skill to decrease the psychological issues that result from social isolation and can be a strategy to prevent the desire for future sexual activities (Lehmiller et al., 2020).

In sum, boredom (de Oliveira & Carvalho, 2020) and loneliness (Common Sense Media, 2020) in adolescents can increase sexual arousal. Sexual arousal is the antecedent of sexting behaviour among adolescents (Cooper et al., 2016). While lonely young adults would engage in sexting as it can be a substitute for casual sex (Lehmiller et al., 2020). However, as emerging adults and adolescents differ in many ways, including sexual development, the findings from studies focused on adolescents (i.e., Cooper et al., 2016; de Oliveira & Carvalho, 2020) may not apply to emerging adults. Furthermore, all of the literature was undertaken in other countries, such as China (i.e., Yu & Zheng, 2020), the United States (Lehmiller et al., 2020), and Israel (Ein-Dor & Hirschberger, 2012) but extremely rare in Malaysia. Subsequently, the objective of this study is to explore the association between loneliness and sexting among Malaysian emerging adults.

### **Intention of Sexual Activity and Sexting Behaviour**

Several past studies (Houck et al., 2014; Temple et al., 2012) focus on young adults' sexual behaviour, which could relate to sexting, while there is a lack of findings on the intention of sexual activity and sexting among emerging adults. The intention of sexual activity refers to an individual's motive or plans to act toward sexual activity and engage in

sexual behaviour or sexual intercourse (Lindgren et al., 2008). Therefore, sexting could be a potential risk for or a predictor of dangerous sexual activities, in addition to the legal implications and possibility of cyberbullying.

However, a study conducted by Temple et al. (2012) stated that adolescents involved in sexting were more likely to have started dating and had sex than those who did not sext. This assumption is similar to the findings of Lenhart (2009), whereby a minor said that sexting frequently happens between romantic couples or at least one person engaging in sexting wants to start a relationship as many young adults view sexting to begin sexual relationships or as an alternative for engaging in sexual activity. In contrast, it is also possible that after a person experiences intercourse, they are more willing to express themselves sexually or flirt through sexting behaviour. For example, sending a sexual image may also prompt sexual approaches from partners, friends, or strangers. Thus, it shows that sexting might serve as an individual's early sexual attempt or establish intercourse with others in a relationship.

Sexting was linked to many text messages exchanged each day, where most of the sexting studies revealed a relationship between sexting and teenagers' participation in the rising risk of sexual activities (Dir & Cyders, 2014; Rice et al., 2012; Rice et al., 2017; Ybarra & Mitchell, 2014). According to Wellings et al. (2006), sexual activity among adolescents is a worldwide issue that affects 30 to 50 percent in industrialised and developing nations, with the peak age for youths' sexual activity engagement being between the ages of 15 to 19. Previous research stated that female adolescents engaging in sexting behaviour seem to coincide with a higher degree of participation in sexual activity and risky sex, such as using substances or alcohol before sex and having multiple partners (Temple et al., 2012). Where risky sex is causing the rising global prevalence of AIDS, HIV, other sexual transmission illnesses, and the high incidence of unplanned pregnancies among youths, these

studies have proven that adolescents who have sexting behaviour have a greater tendency to engage in sexual activity, which includes risky and unprotected sex, such as having simultaneous sexual partners. As a result, the practice of sexting behaviours tends to be linked with significantly increased involvement in unsafe sex.

In sum, this literature concluded that sexting relates to a broader set of sexual activities indicated with the intention of sexual activity, which might be linked to unsafe sex. Hence, the present study predicts that emerging adults who are high in the intention of activity are more likely to engage in sexting behaviour, and the results might contribute some insights into sexual studies.

### **The Need for Popularity and Sexting Behaviour**

According to Utz et al. (2012), the need for popularity refers to one's motivation to perform specific actions to seem popular, and individuals who have a high need for popularity certainly hope that they can be noticed as "popular". It was proposed that sexting is a behaviour that enables individuals to boost popularity, gain status, peer acceptance as well as peer recognition (Vanden Abeele et al., 2014). Hence, individuals who actively seek popularity have a higher tendency to post images or videos of themselves (Vanden Abeele et al., 2014; del Rey et al., 2019) as they believe that they can gain acceptance in their peer groups by doing so (Baumgartner et al., 2015).

Vanden Abeele et al. (2014) proposed that sexting is promoted by the need for popularity in both males and females; however, the approaches and the consequences of sexting for both males and females are distinct (Casas et al., 2019; del Rey et al., 2019). Additionally, it was discovered that sexting has strongly linked to the need for popularity and self-perceived popularity with the other sex (Vanden Abeele et al., 2014). According to Vanden Abeele et al. (2014), the sexual permissiveness of females who engage in sexting



may have a negative impact on their popularity with other females. Females who are less popular among their peers have a higher tendency to seek acceptance from their peers through sexting. However, when females are involved in sexting, they usually do not fail to gain popularity, but also experience insults, rejections, or even negative feelings afterward, which males do not experience (Burén & Lunde, 2018; Temple et al., 2012). In addition, females who sext are more likely to encounter negative consequences or impacts, such as being humiliated or insulted, resulting in their reputation being damaged (Wood et al., 2015).

Adolescence is the stage where one's social status is perceived as extremely important (Casas et al., 2019; Chalfen, 2009; Ling, 2004). According to Ringrose et al. (2013), the social statuses of females can be strengthened when females are being inquired to sext. This could explain why some females who are eager for popularity have a higher tendency to involve in sexting compared to those females who do not keen on popularity. Similarly, a study proposed by Casas et al. (2019) stated that males usually boost their popularity and social capital among their peers by engaging in sexting. For instance, numerous studies have found that males have a higher tendency to brag about their achievements with females by gathering or exchanging images of females sexting (Lippman & Campbell, 2012; Walrave et al., 2015; Yeung et al., 2014).

Moreover, when male adolescents sext, their intentions are usually to show off, demonstrate or prove their sexual activity or success with females to their peers, or even to enhance their position in their peer groups (Lenhart, 2009; Lippman & Campbell, 2012; Ringrose et al., 2013; Walrave et al., 2015). Male adolescents who have girlfriends tend to share their girlfriends' sexual images or messages to their peers as they wish to feel prideful when showing off their "girls" (Renfrow & Rollo, 2014). Additionally, Walrave et al. (2015) proposed that self-produced intimate images or videos may have a higher value than

“professionally” produced pornographies in peer groups as self-produced intimate images or videos can prove a male’s ability to acquire females’ intimate images or videos. Thus, males tend to engage in sexting to increase their status among their peers and gain popularity.

In short, it can be concluded that the need for the popularity of individuals could thus illustrate their involvement in the sexting phenomenon. First and foremost, rare attempts have been made in research to contribute to the participation of sexting in the Malaysian context. According to the literature, it was discovered that most studies are mainly based on the Western context, such as in Spain (Casas et al., 2019) and the U.S. (Lenhart, 2009). Apart from that, most literature primarily focuses on adolescents but not on emerging adults. Hence, the motivation of this study is to broaden and contribute to the study of sexting behaviours among emerging adults in Malaysia.

### **Perceived Peer Pressure and Sexting Behaviour**

The social norm theory (Berkowitz, 2004) proposed that peer influence or perceived peer pressure reflects the degree to which peers can place social pressure on themselves by approving or disapproving of someone’s specific behaviour and participation in that behaviour. Furthermore, Vanden Abeele et al. (2014) indicated that membership in a peer group indicates a certain amount of peer pressure to conform to peer norms. It was also found that adolescents are inclined to conform to peer norms in order to gain peer acceptance, even if it signifies engaging in antisocial behaviours (Vanden Abeele et al., 2014).

Several past findings have identified that adolescents’ sexting behaviours may be influenced by their peers (Houck et al., 2014; Lee et al., 2013; Rice et al., 2012). For instance, Rice et al. (2012) reported that adolescents primarily engage in sexting as their peers are involved in sexting. Adolescents who perceive peer involvement in certain behaviours have a higher tendency to perform similar behaviours (Tomé et al., 2012) to

conform to the peer groups. Hence, it can be explained that adolescents' sexting behaviours are closely linked to their perceptions of the sexting behaviours of their peers (Rice et al., 2012). Similarly, Lee et al. (2013) also recognised a positive relationship between peer pressure and sexting.

Additionally, the correlation between perceived peer pressure and sexting is further supported by Lee et al. (2013), indicating that individuals are more likely to sext when they perceive peer pressure. According to Rice et al. (2012), the behaviour of adolescents is significantly linked to their peers' perceptions of normative behaviour. When individuals perceive peer pressure from their peers, they may perceive that sexting is normative or socially acceptable. Moreover, it was also discovered that youths with a higher level of peer pressure have a higher tendency to develop favourable attitudes towards sexting behaviours (Lee et al., 2013). Similarly, Champion and Pedersen (2015) proposed that peers can influence individuals' proclivity to sext, and individuals tend to engage in sexting as they perceive peer pressure from their peers. Champion and Pedersen (2015) also further illustrated that sexting was considered a common activity among females and males who sext as they do not find it unfamiliar to sext.

Apart from that, Lee et al. (2013) proposed that sexting occurs as a result of peer pressure and may be affected by peer group dynamites (van Ouytsel et al., 2014; Walrave et al., 2014). However, the study by Vanden Abeele et al. (2014) indicated that perceived peer pressure is not significantly correlated to sexting. This could be due to the pressure to sext comes primarily from other specific peers, such as one's boyfriend or girlfriend (Vanden Abeele et al., 2014), which concentrated on general peer pressure instead of pressure from specific peers (Ringrose et al., 2012; van Ouytsel et al., 2014).

In sum, little is known that most studies proposed that perceived peer pressure is positively associated with sexting (Adimora et al., 2018; Champion & Pedersen, 2015; Lee et al., 2013; Rice et al., 2012; van Ouytsel et al., 2014). However, the study by Vanden Abeele et al. (2014) shows that there is no relationship between perceived peer pressure and sexting. Hence, this study would like to figure out and verify the result based on the inconsistency across the literature. Moreover, most literature tends to focus on adolescents rather than adults, and most past studies are based on the Western context, such as the African context (Adimora et al., 2018) and the American context (Vanden Abeele et al., 2014). Hence, this study intends to replicate the study among emerging adults and in the Malaysian context.

### **Relationship Status and Sexting Behaviour**

According to Bianchi et al. (2021), there was a significant difference in sexting between single people and those in a relationship, especially for the couple experiencing long-distance relationships during the lockdown. However, they have a significant difference in the types of sexting. For instance, the participants in a long-distance relationship have a higher chance of trying experimental sexting (Bianchi et al., 2021), as this is the way for couples who are not meeting face-to-face to increase intimacy (van Ouytsel et al., 2020). Moreover, the couple in a non-distance relationship reported the lowest level of sexting as the couple faces each other every day and acts as a positive resource to provide support during home confinement (Bianchi et al., 2021). This can be supported by the research from Lehmiller et al. (2020), those couples living together have a higher rate of trying new sexual experiences, such as trying new sexual positions.

While for the participants who are not in a relationship, Bianchi et al. (2021) stated that they are more prone to engage in risky sexting as the participants are finding sexual contact with strangers, especially during the lockdown, such as using substances or alcohol

while sexting, to act as a substitution of traditional sexual intercourse. In addition, another study conducted by Lehmillier et al. (2020) stated that singles have a higher tendency to engage in emotional sexting because singles feel lonely and need to increase a bond with strangers during the lockdown.

Regarding attitudes towards sexting, research has found significant differences between those who are single yet dating, single with no commitment, and those in a romantic relationship. The study found out that people in a romantic relationship and those who are single and dating have more positive attitudes toward sexting as people in a beginning stage of a new relationship prefer sexting to increase intimacy and avoid the fading of the interest in a relationship (Samimi & Alderson, 2014). However, singles who do not commit any dating have a more negative attitude towards sexting, especially single females (Samimi & Alderson, 2014). This can be explained by peer pressure when their partners are asking them to send explicit sexual content, and females who are in a relationship may be thought that their partners expect them to engage in this sexting behaviour (Chalfen, 2009, as cited in Samimi & Alderson, 2014). Therefore, this is why a single female who does not commit to dating has a positive attitude towards sexting.

Furthermore, whether the person engages in sexting behaviour can also be because of attachment issues. The research by Drouin and Landgraff (2012) was only limited to those who are in a relationship, and it showed that the individuals who have the avoidant attachment are more likely to engage in sexting behaviour with partners as they fear intimacy and will avoid the situation where they may need to disclose him or herself. Individuals in a relationship with avoidant attachment also see sexting as a substitute for actual sexual behaviour as the dislike of sexual intercourse makes them avoid having sex and have a certain distance from their partner (Drouin & Landgraff, 2012). Therefore, sexting can be an

alternative to having sex. On the other hand, individuals with secure attachments prefer sexual activity with partners to express emotional intimacy (Tracy et al., 2003).

Based on the literature, individuals in a relationship and those dating have more positive attitudes towards sexting, while singles with no commitment have negative attitudes towards sexting (Samimi & Alderson, 2014). Studies also found that individuals in a non-distance relationship are less likely to engage in sexting behaviour but are more likely to explore more new sexual activities than those who are single and those who are in a long-distance relationship (Bianchi et al., 2021). Therefore, the present study hypothesises that emerging adults in a relationship are less likely to engage in sexting behaviour. Examining the relationship differences in sexting behaviour among Malaysians may contribute to local sexuality research as most previous studies were undertaken in Western countries, such as the United States (Drouin & Landgraff, 2012) and Italy (Bianchi et al., 2020). Additionally, although the literature has significant results on relationship status and sexting, most of the literature is outdated (i.e., Drouin & Landgraff, 2012, Tracy et al., 2003).

### **Gender Differences and Sexting Behaviour**

Past studies found inconsistent results in the engagement in sexting behaviour between males and females (Benotsch et al., 2013; Winkelman et al., 2014). For example, most males perceived sexting as a pleasure and satisfaction while females perceived it as an embarrassment and humiliation. Dir et al. (2013) found that women had more unfavourable expectations and experiences regarding sexting attitudes and expectations. Perkins et al. (2014) also concluded that men's responses to sexual texts without requests are substantially more favourable than women, who are less happy and more humiliated. For example, males who sext tend to hold more unfriendly or unfavourable attitudes towards females.

There are several reasons why people like to engage in sexting and have favourable expectations about this action, especially for males. Parker et al. (2013) stated that sexting could help couples improve their relationship satisfaction and sexual pleasure. From males' perspectives, sexting is a way to satisfy their sexual desire or maintain a romantic relationship, but it is also reported that most females do not prefer this way unless they are forced by a partner or feel insecure (Springston, 2017). For instance, females fear losing their partners when they reject this behaviour. Other factors for participating in sexting are legal sexual motives such as starting or maintaining a relationship, the tendency to feel attractive, and just wanting to (Perkins et al., 2014). This has concluded that there might be differences between men's and women's perspectives and reasons for sexting.

Furthermore, the self-identity of males and females can impact their motives and engagement in sexting. According to Seccombe (2018), masculinity is associated with being in control and initiating sexual interactions; males can be predicted to initiate sexting and have a higher tendency to send sexual texts. However, on the other side, the conventional view is that females are expected to be shy and sensitive instead of sexually and dominating like males. In contrast, meeting the ideal feminine level could also influence females' motivation since sexting could be a way to verify their beauty. It can be concluded that males sexting might be due to their masculinity and most likely to begin a sexual relationship, while females sexting might want to get approval from society for their attractiveness.

In conclusion, the literature shows inconsistent findings in gender differences among young adults with sexting behaviour. When males and females equally engage in sexting, it might be related to their sense of self-identity in society. In contrast, there are also different perspectives from males and females towards sexting, such as males could satisfy their pleasure while females were labelled negatively or humiliated. Therefore, the present study

predicted that males are more likely to engage in sexting and aimed to examine the gender differences among emerging adults in Malaysia.

### **Theoretical Framework**

The present study uses the Problem Behaviour Theory (PBT), which Jessor and Jessor (1977) proposed to explain the determinants of sexting behaviour. Problem Behaviour Theory (PBT) is a social-psychological framework that explains the development of problem behaviour (Mckellar & Sillence, 2020a). Jessor (1987) described problem behaviour as behaviour that does not conform to social and legal norms (Mckellar & Sillence, 2020a). The theory consists of three systems: behavioural, personal, and environmental systems. Each system has its risk factors and protective factors that lead to the involvement in problem behaviour or controls against the participation of problematic behaviour (Donovan, 1996). To be more specific, the explanations of each system are discussed below.

**Behavioural system:** Risk factor means it has a high tendency to exhibit the problem behaviour, and the person's chances to behave problematically in other situations are high (Karaman, 2013). For example, if sexting behaviour is viewed as problematic, then the chances of engaging in other problematic behaviour are high. Many studies postulated sexting is a risky behaviour as it will lead to other social problems, such as cyberbullying (Gámez-Guadix & Mateos-Pérez, 2019; Ojeda et al., 2019; van Ouytsel et al., 2019), risky sexual behaviour such as consuming alcohol when having sexual intercourse (Temple et al., 2012), substance use (Klettke et al., 2014), or even revenge porn (Englander, 2015). Hence, sexting behaviour is a problem behaviour as it can lead to various negative consequences that people may engage.

**Personal system:** The personal system consists of people's own traits, motivation, beliefs and control, which serves to reduce or increase the involvement in problem behaviour



(Karaman, 2013). Previous studies have mentioned that the problem behaviour, sexting, is related to the traits or belief systems such as loneliness, intentions of sexual activity, and the need for popularity.

For loneliness, Rusell (1996) stated that loneliness is a stable trait, depending on the life event that they are experiencing. The research found that people who are high in loneliness are more likely to try new sexual activities, such as sexting, as social isolation is more likely to trigger the person's emotional vulnerability (Lehmiller et al., 2020). Hence, people with high levels of loneliness can be a risk factor for people to engage in sexting.

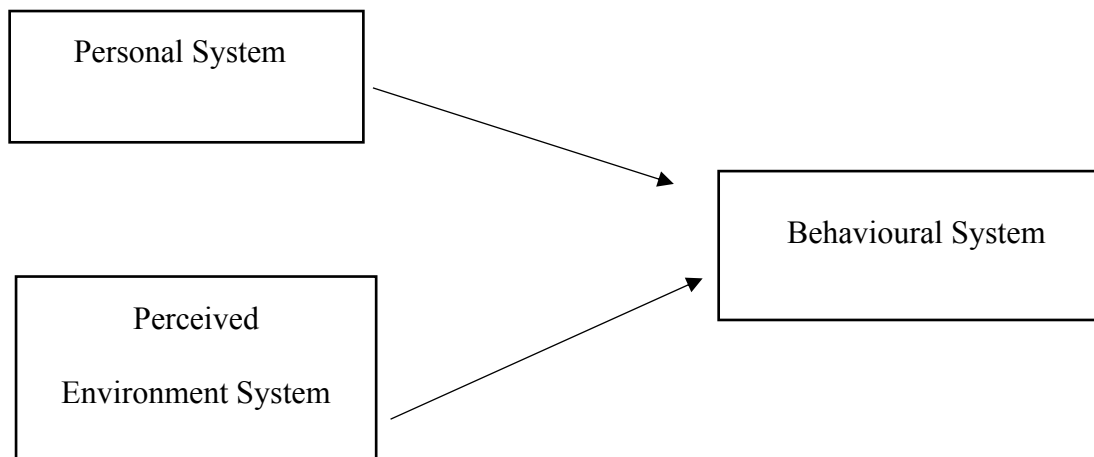
In addition, the intention of sexual activities is related to a cognitive process on the decision to perform a certain kind of behaviour (American Psychological Association, 2020). The personal belief structure is all about the cognitive controls of the person to engage or reject the involvement of problem behaviour (Jessor & Jessor, 1977). Moreover, the intention of sexual activity is a person's motive or plan to engage in sexual intercourse or other sexual behaviour. Temple et al. (2012) proved that adolescents involved in sexting were more likely to have started dating and had sex. For example, Lenhart (2009) stated that many young adults viewed sexting to begin sexual relationships or as an alternative for engaging in sexual activity. Hence, the intention of sexual activity might be a determinant of sexting behaviour.

Meanwhile, for the need for popularity, it was found that adolescents engage in sexting behaviour as adolescence is the period when social status gains particular importance (Chalfen, 2009; Ling, 2004). Apart from that, sexting may be a potential opportunity for teens to boost or increase their popularity (Baumgartner et al., 2015; Gewirtz-Meydan et al., 2018). Consequently, individuals who are in a higher need for popularity have a higher tendency to engage in sexting behaviour. As mentioned above, as the previous studies have found the

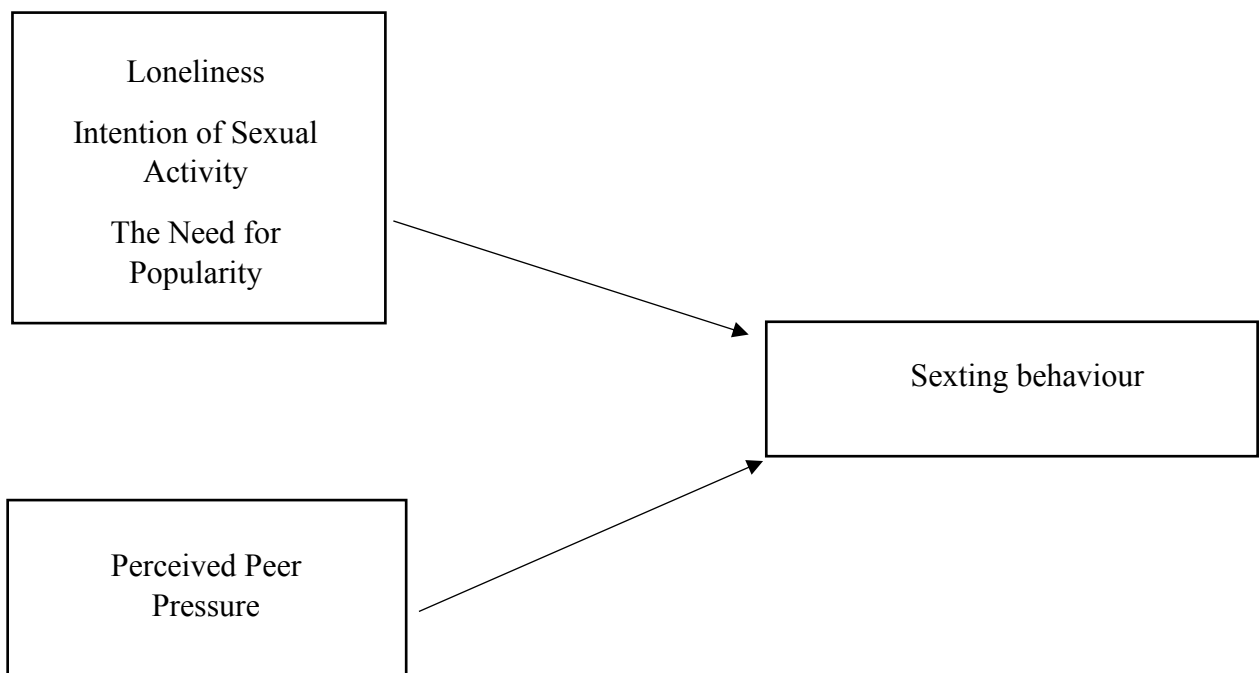
association between problem behaviour and personal traits and belief system, the present study includes loneliness, the intention of sexual behaviour, and the need for popularity as the determinants of sexting behaviour.

**Environmental system:** The environment system is about the relationship between the person and parents, peers, living environment, and school activities (Karaman, 2013). Inside the environment system, it has a distal and proximal environment structure that helps engage or prevent the person from involvement in problem behaviour (Donovan, 1996). Perceived peer pressure is placed under the proximal environment structure as the strong peer influence and high approval of problem behaviour are more likely to increase negative behavioural engagement (Donovan, 1996). Although the person has no high intention to do so, he or she may perceive those peers are more influential than their parents. Therefore, the person's perceived environment is crucial as it influences whether to engage in the problem behaviour (Aunola et al., 2004). For instance, Clancy et al. (2018) found that teenagers engage in sexting behaviour because their peers perceive the sexting behaviour as harmless, and the teenagers need to do so as their peers are also doing the same thing. Therefore, in this present study, perceived peer pressure will be included as one of the determinants of sexting behaviour.

From the detailed explanation above, the variables in the present study can be explained by Problem Behavioural Theory (PBT). Hence, it can act as a framework for the present study to examine the association between loneliness, intentions of sexual activities, the need for popularity, perceived peer pressure and sexting behaviour among emerging adults in Malaysia.



**Fig. 1** Theoretical framework of personal system, perceived environment system, and behavioural system.



**Fig. 2** Conceptual framework of loneliness, intention of sexual activity, the need for popularity, perceived peer pressure, and sexting behaviour among emerging adults in Malaysia.

Figure 2 represents the conceptual framework of the study, which is guided by problem behaviour theory (PBT). The present study is dedicated to exploring the causes of

sexting behaviour among emerging adults in Malaysia. The present's study includes loneliness, intentions of sexual activity, the need for popularity and perceived peer pressure. According to this framework, sexting behaviour is the outcome (dependent variable), and the determinants (independent variable) are loneliness, intentions of sexual activity, the need for popularity, and perceived peer pressure.

The present study also compares gender and sexting, and relationship status (i.e., single, in a relationship) and sexting. Although the past studies in the Western context mentioned that males are more likely to engage in sexting behaviour (Reyns et al., 2014; Perkins et al., 2014; Springston, 2017), and single people have a more positive attitude toward sexting (Samimi & Alderson, 2014) and are more likely to engage in risky sexual behaviour (Bianchi et al., 2020). Nevertheless, there is a lack of previous findings that focus on gender, relationship and sexting in the Malaysian context. Therefore, the present study is committed to finding out and comparing the results in the local context.

### **Chapter Summary**

In short, numerous past studies on the four determinants of sexting behaviour were summarized: loneliness, the intention of sexual activity, the need for popularity, and perceived peer pressure. Furthermore, this chapter also included the comparison of gender and relationship status from previous studies. Additionally, the Problem Behaviour Theory was utilised to describe the association of the four determinants and sexting behaviour. The conceptual framework is also demonstrated to present the association between the determinants and the outcome of this study.

## **Chapter III**

### **Methodology**

#### **Introduction**

This chapter consists of the research design, sampling procedures, sample size, and data collection procedure. On top of that, the description of the five instruments used, pilot study and reliability test, as well as data analysis are also included in this chapter.

#### **Research Design**

A cross-sectional research design was used in the present study. According to Cherry (2019), cross-sectional research may give information about situations occurring around individuals, and it can look at different variables. The survey study design was chosen due to the ease of data collection and the large data relevance that may represent wide populations (Sincero, 2012). A correlational research design was utilised to analyse the relationship between loneliness, the intention of sexual activity, the need for popularity, perceived peer pressure, and sexting behaviour among emerging adults in Malaysia. The present study also used the quantitative research design to study a population by focusing on analytical statistics and interpreting data collected from the survey. Hence, quantitative data were collected using a survey questionnaire.

#### **Sampling Procedures**

The purposive sampling method was utilised in the present study to recruit participants. The purposive sampling method, also known as judgmental sampling, is one of the types of non-probability sampling in which the researchers' judgement in search of a representative sample that meets the specific criteria of the study (Etikan & Bala, 2017). One advantage of the purposive sampling method is that it assists the researcher's assessment of

who will provide the most helpful information for the study's aims (Vehovar et al., 2017). The second advantage of purposive sampling is that it helps researchers exclude the respondents who were not eligible for the criteria. At the same time, participants who shared the same viewpoint as the study will be invited to participate in the study to obtain the necessary knowledge and share it using the purposive sampling method (Etikan & Bala, 2017).

Since the present study aimed to examine sexting behaviour in Malaysia, the study was conducted in different states of Malaysia, including Selangor, Perak, Penang, Pahang, Perlis, Kelantan, Kedah, Terengganu, Johor, Malacca, Negeri Sembilan, Sabah, and Sarawak. Before the pilot study was conducted, ethical approval was submitted to the Scientific and Ethical Review Committee (SERC) of UTAR for ethical clearance. The ethical clearance approval was received by researchers on 13 December 2021, and the reference number for the ethical clearance approval is U/SERC/282/2021.

### **Sample size**

The desirable formula for sample size calculation is 95% confidence level and 5% marginal error (Field, 2017). Therefore, the researchers calculated the desirable sample size for this study. First and foremost, the researchers have collected the correlation coefficient value (R-value) from the literature to calculate the effect size ( $f^2$ ) of the predictors from previous studies. The researchers needed an average effect size for all the four predictors to calculate the sample size for the present study, and these four predictors are loneliness, intention of sexual activity, the need for popularity, and perceived peer pressure. As a result, G-Power was used to insert the result of the average effect size to calculate the sample size for this study, and the result showed that the present study must achieve a minimum of 144

participants. In the actual study, the researchers have collected 197 samples after removing the data from 307 samples that cannot be utilised.

### **Data Collection Procedure**

The researchers have set some criteria for the participants, consisting of (i) a Malaysian citizen, (ii) ages between 18 to 29, and (iii) those who have experienced sexting behaviour. Meanwhile, those who failed to meet the criteria were excluded from this study. By creating the requirements for the study, researchers found the potential participants and sent the Qualtrics link through social media applications, such as WeChat, Telegram, WhatsApp, Facebook, Tinder, TanTan, Bumble, and Instagram. Therefore, the researchers recruited participants who shared the same viewpoint as the study to obtain the necessary knowledge and share it using the purposive sampling method (Etikan & Bala, 2017).

The first section of the online survey contains the information sheet and the informed consent form. Participants were required to read the information sheet as well as the informed consent form to understand the topic of the present study and indicate whether they were willing to participate in the study. The purpose and the details of the present study were stated in the information sheet to avoid any misunderstandings or unpleasant events to be taken place in the future. Moreover, some participants may be hesitant to respond to the questions as the present study needed them to reveal their sexting behaviour. Hence, participants were notified that their identity would remain anonymous, and their participation would be entirely confidential.

Additionally, the informed consent form notified the participants that their responses would be merely used for research purposes, and the data would be discarded once the study was finished. Participants can also opt to withdraw from the study if they feel uncomfortable responding to the online survey. Participants who agree and are willing to participate in the

present study were required to click on the “I agree to participate” button and proceed to respond to the questionnaire. Additionally, participants can contact any researchers if they encounter any doubts or problems regarding the present study. Lastly, the online survey was distributed to participants after obtaining ethical approval from UTAR, and the period of survey distribution was from 7 January 2022 to 31 January 2022.

### **Instruments**

Five different instruments were used in the present study, including Sexting Behaviour Scale (SBS), UCLA Loneliness Scale (ULS-8), The Youth Sexual Intention Questionnaire (YSI-Q), Need for Popularity Scale (NFPS), and Network of Relations Inventory–Relational Quality Version (NRI-RQV).

#### *Sexting Behaviour*

Sexting behaviour was being measured with the Sexting Behaviours Scale (SBS; Dir, 2012). This scale assesses the prevalence and occurrence of multiple sexting behaviours, including receiving or sending explicit messages, sexually inappropriate images or texts, and sexual content shared on social media. It has 11 items, with nine items created on a 5-point Likert scale (ranging from 1 = *Never* to 5 = *Frequently*). One item examines the number of individuals with whom they have shared sexual texts, while another examines those with whom they have shared sext. The sample of items comprise, “How often have you received suggestive or sexually charged text messages?” and “How often have you sent provocative or suggestive pictures by text message?”. Consequently, a higher overall score suggests that participants sext more frequently. The Pearson statistic demonstrates that the concurrent validity of SBS and the Intimate Images Diffusion Scale between teenagers (EDIMA) is significant ( $r = 0.729$ ;  $p < 0.01$ ) (Penado et al., 2019). This scale also has an excellent internal consistency with  $\alpha = .88$ , according to Dir (2012).



### *Loneliness*

The short-form UCLA Loneliness scale (ULS-8) contains eight items that measures loneliness (Hays & DiMatteo, 1987). The sample items include (a) I lack companionship, (b) There is no one I can turn to, (c) I am unhappy being so withdrawn, (d) I feel left out, (e) I feel isolated from others, (f) People are around me but not with me, (g) I am an outgoing person, and (h) I can find companionship when I want it. This scale uses a 4-point Likert scale (ranging from 1 = *Never* to 4 = *Often*). Thus, higher scores imply higher levels of loneliness. The concurrent validity for this scale and the single item "I'm lonely" was 0.713 (Xu et al., 2018). The Cronbach's alpha of this scale was 0.84, which has an excellent internal consistency (Wu & Yao, 2008).

### *Intention of Sexual Activity*

The Youth Sexual Intention Questionnaire (YSI-Q) was utilised to measure the intention of sexual activity or sexual intention among youths in Malaysia (Muhammad et al., 2017). 20 items with four constructs were included, namely (1) Sexual intention, (2) Attitude towards premarital sex, (3) Social norms, and (4) Self-efficacy. The beginning statement was "the following statements are about sexual activities among unmarried youths." This scale is a 4-point Likert-type scale (ranging from 1 = *Strongly disagree* to 4 = *Strongly agree*). However, the present study decided to use one of the constructs in this scale, which is sexual intention, to examine the intention of sexual activity among Malaysian emerging adults. Sample items include "I expect to have sex with my partner." and "I want to have sex with my partner." Therefore, the higher score indicated a higher sexual intention. The experts agreed that the items were significant and fit with the expected characteristics in terms of content validity. The Malaysian students also found that the items were relevant and age-appropriate as they had no trouble understanding the items (Muhammad et al., 2017). The

Cronbach's alpha value for the construct (1) Sexual intention was 0.93, which has a good internal consistency (Muhammad et al., 2017).

#### *The Need for Popularity*

The need for popularity was measured by the Need for Popularity Scale (Santor et al., 2000; Utz et al., 2012). It examined whether the individuals' behaviours are perceived as popular among their peers. This scale contains 12 items with a 5-point Likert-type scale, ranging from 0 (*Completely disagree*) to 4 (*Completely agree*). Sample items include "I have done things to make me more popular, even when it meant doing something I would not usually do." and "I'd do almost anything to avoid being seen as a "loser." Hence, higher scores imply a higher need for popularity. This scale has demonstrated a strong convergent validity (Santor et al., 2000). Moreover, this scale was reported with a good internal consistency as the Cronbach's alpha was 0.92 (Kim, 2020).

#### *Perceived Peer Pressure*

Perceived peer pressure was measured by the Network of Relations Inventory–Relational Quality Version (NRI-RQV; Buhrmester, 1992). It involves ten subscales, and the subscale of peer pressure will be utilised in this study. The subscale of peer pressure (PRE) consists of three items with a 5-point Likert scale ranging from 1 (*Almost never*) to 5 (*Almost always*). Each item score will be summed together to get the total score on this scale. Sample items include "How often do your friends push you to do things that you don't want to do?" and "How often do your friends try to get you to do things that you don't like?". Hence, higher scores imply a greater perceived peer pressure. It was transcribed and utilised in a variety of cultures. Even though this scale has been widely used, research stated that it was valid and focused solely on measuring friendship traits (Furman & Buhrmester, 2009). It also

has an acceptable internal consistency with the Cronbach's alpha of 0.75 (Vanden et al., 2014).

### **Data Analysis**

In the present study, the normality test was used to check for normality by using SPSS version 23, and the normality test investigated boxplots, skewness and kurtosis, as well as Kolmogorov-Smirnov that were carried out in this study. Then, the boxplot also played a role for researchers to detect the outliers. Moreover, the present study provided demographic information, whereby age, gender, sexual preferences, race, relationship status, and employment status were shown as descriptive statistics.

Additionally, the assumptions of multiple linear regressions were also performed by verifying multicollinearity and evaluating the correlation coefficient, tolerance, and Variance Inflation Factor (VIF) values. Furthermore, Pearson Product-Moment Correlation was used to investigate if there was a link between sexting behaviour, loneliness, intentions of sexual activity, the need for popularity, and perceived peer pressure. In addition, an independent *t*-test was also used to assess if there was a difference in sexting behaviour between gender as well as relationship status among emerging adults in Malaysia. Last but not least, a hierarchical multiple regression analysis was performed to further analyse the effect of age, gender, and relationship status, with sexting behaviour as the outcome variable, loneliness, intentions of sexual activity, the need for popularity, and perceived peer pressure as the predictors.

### **Pilot Study**

Before the actual study was carried out, the researchers conducted a pilot study to analyse its feasibility before performing the actual study, which involves a large-scale study (In, 2017). A pilot study is an initial phase in the research methodology, and it is usually conducted in a smaller sample size that helps the researchers to plan and modify the study

before proceeding to the actual study (In, 2017). Hence, the researchers created a survey using Qualtrics and distributed it to 45 participants. After collecting the data, the researchers carried out a reliability analysis to assess the reliability of our five instruments. According to Arof et al. (2018), to get a good internal consistency, the alpha value should be within  $\alpha = .70$  to more than .90. After the reliability analysis of the pilot study was performed, the results showed that the five instruments were highly reliable. Researchers have collected 307 participants in the actual study after achieving high reliability in the pilot study. Apart from that, the results also showed that the five instruments were highly reliable.

Table 1

*Reliability of the instruments in Pilot and Actual study*

Scale	The total number of items	Cronbach's alpha	
		Pilot Test (n=45)	Actual Study (n=197)
Sexting Behaviour Scale (SBS)	9	.864	.927
UCLA Loneliness scale (ULS-8)	8	.750	.840
Youth Sexual Intention Questionnaire (YSI-Q)	5	.903	.885
Need for Popularity Scale	12	.913	.943
Network of Relations	3	.876	.911

Inventory–Relational  
Quality Version (NRI-  
RQV)

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### **Chapter Summary**

In sum, the research design of this study is cross-sectional design, and a purposive sampling method was used to recruit emerging Malaysian adults who have experienced sexting behaviour. Participants, research location, and sample size were also included. This chapter discussed five different instruments that demonstrated high reliability and validity. Moreover, a pilot study was conducted to examine the reliability of the scale in this study. The Pearson Product-Moment Correlation test, independent *t*-test, and Hierarchical Multiple Regression Analysis were also utilised to examine the variables using SPSS version 23.

## Chapter IV

### Results

#### Introduction

This chapter discussed the data diagnostic and missing data, normality assumptions, multiple linear regression assumptions, descriptive statistics, and the data analysis for each research hypothesis.

#### Data Diagnostic and Missing Data

The researchers would like to search for the outliers in the present study as the presence of outliers can result in inflated research error rates and significant distortions of power for statistical tests (Osborne & Overbay, 2004). As a result, one technique to verify normality is using a boxplot, which can help identify outliers. According to Field (2017), boxplots make it relatively straightforward to spot extreme outliers for researchers. According to the results, the researchers found 18 outliers, but there were no extreme outliers in the study, as the mild outliers are below the upper and lower fence lines in boxplots. Any data outside the upper or lower fence lines is considered an extreme outlier in the boxplot (Kwak & Kim, 2017). The lower fence value is calculated by multiplying the Interquartile range (IQR) by 3 and minus the value of the lower quartile (Q1). The upper fences are calculated by multiplying the interquartile range (IQR) by 3 and then adding the upper quartile (Q3) value. As a result, any value that falls between the upper and lower fences was not deleted from the study.

### Normality Assumptions

According to Cain et al. (2017), before performing any statistical tests, the normality test was checked as a precondition because it can assist researchers in making appropriate judgments from findings. Therefore, the normality assumption for loneliness, intention of sexual activity, the need for popularity, and perceived peer pressure were tested using the P-P plot, histograms, skewness and kurtosis, and Kolmogorov-Smirnov test. First and foremost, histograms for each predictor (refer to Appendix D) have achieved the normality test as the histograms were shown to have a bell curve shape. Then, the data points are close to the diagonal line for the P-P plots for the variables (refer to Appendix E). Hence, the variables reached the normality assumption (Field, 2017).

Moreover, the results of Kolmogorov-Smirnov test demonstrate that five variables, loneliness,  $D = .078$ ,  $p = .006$ , sexual intention,  $D = .153$ ,  $p < .001$ , need for popularity,  $D = .064$ ,  $p = .046$ , perceived peer pressure,  $D = .136$ ,  $p < .001$ , and sexting behaviour,  $D = .166$ ,  $p < .001$ , are considerably non-normal. This is due to the  $p$ -value for loneliness being lower than .01, while the  $p$ -value of the need for popularity is lower than .05 (Field, 2017). The  $p$ -values for sexual intention, sexting behaviour, and perceived peer pressure are lower than .001 (Field, 2017). Therefore, the researchers have enough evidence to reject the null hypothesis (Field, 2017).

Table 2

*Kolmogorov-Smirnov test for the present study*

Variable	Kolmogorov-Smirnov	
	Statistic	Sig. ( $p$ -value)
Loneliness (IV)	.078	.006

Sexual Intention (IV)	.153	<.001
Need for Popularity (IV)	.064	.046
Perceived Peer Pressure (IV)	.136	<.001
Sexting Behaviour (DV)	.166	<.001

Aside from that, the skewness and kurtosis values were also examined in the present study as it is one of the most crucial things in normality assumption. The skewness of +/-2, and the kurtosis of +/-7 is considered normal (Bryne, 2010). All the skewness and kurtosis values were within the range. Thus, the normality assumption was met.

Table 3

*Skewness and Kurtosis for the present study*

	Skewness	Kurtosis
Sexting Behaviour	1.248	0.853
Loneliness	0.299	-0.411
Sexual Intention	0.368	-0.528
Need for Popularity	-0.460	0.331
Perceived Peer Pressure	0.547	-0.425



### Multicollinearity Analysis Assumptions

The assumptions of multiple linear regression were conducted in the present study. Since multicollinearity occurs when two or more independent variables in a regression model are interrelated (Daoud, 2017), this study used the Multicollinearity analysis. Minor multicollinearity can also cause significant problems, but when it is moderate or high, it increases the standard error of coefficients (McClendon, 2002). Variance inflation factor (VIF), correlation coefficients, and tolerance were tested to ensure multicollinearity was not violated. If the variables have a low or weak association, their correlation coefficients should not be more than 0.8 or 0.9, as the predictor variable is multicollinear if the coefficients' magnitudes are near to 1 (Midi et al., 2010). The correlation matrix findings show that the predictor variables are not highly correlated, with coefficient magnitudes ranging from .137 to .546. To indicate no violation of the multicollinearity assumption, Shieh (2010) advised that the predictor's tolerance value must be more than .10, and the Variance Inflation Factor (VIF) must be less than 10. This assumption from Shieh (2010) was met in this study because the tolerance values for each predictor were above .10 and the Variance Inflation Factor (VIF) values were below 10.

Table 4

*Multicollinearity Assumptions Table (n=197)*

Variables	1	2	3	4	5	Tolerance	VIF
1. Sexting Behaviour	1						
2. Loneliness	.134*	1				.844	1.184

3. Sexual Intention	.366*	.137*	1			.919	1.088
	**						
4. Need for Popularity	.302*	.360*	.274*	1		.642	1.556
	**	**	**				
5. Perceived Peer Pressure	.241*	.329*	.208*	.54	1	.678	1.474
	**	**	*	6**			
				*			

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*Note:* One-tailed test; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Overall, the normality assumptions have been met for all the variables, such as the Histogram, P-P plot, Skewness and Kurtosis, and Multicollinearity Analysis Assumption, except for the Kolmogorov-Smirnov test. Hence, the variables in the present study have met the assumption of normality because they have attained more than three indications.

### **Descriptive Statistics**

The table below shows the demographic information of 197 respondents. In the present study, the researchers have collected 111 (56.3%) males and 86 (43.7%) females who are between the aged of 18 to 29 ( $M = 22.76$ ,  $SD = 2.20$ ). Among the 197 respondents, 55.3% are Chinese, followed by 24.4% Malay, 17.3% Indian, and 3% of other races such as Bumiputera, Melanau, Kayan, Bajau, Kenyah, Bidayuh. As for employment status, 76.1% are students, 19.3% are employed, and 4.6% are unemployed. In addition, for the current relationship status, 61.4% of them are single, whereas 38.6% are in a relationship. In regard to sexual preference, 94.9% of the respondents are attracted to the opposite sex, while 5.1% are attracted to the same sex.

Table 5

*Summary table of participants in the present study (n = 197)*

	n	%	Mean	SD
<b>Age</b>			22.76	2.20
<b>Sex</b>				
Males	111	56.3		
Females	86	43.7		
<b>Race</b>				
Chinese	109	55.3		
Malay	48	24.4		
Indian	34	17.3		
Others	6	3.0		
<b>Employment Status</b>				
Employed	38	19.3		
Unemployed	9	4.6		
Students	150	76.1		
<b>Current relationship status</b>				
Single	121	61.4		
In a relationship	76	38.6		
<b>Sexual Preferences</b>				
Attracted to the opposite sex	187	94.9		
Attracted to same-sex	10	5.1		

## Inferential Statistic

### Gender Differences and Sexting Behaviour

Research Question 1: Are there any gender differences in sexting behaviours among emerging adults in Malaysia?

*H<sub>1</sub>: Male emerging adults are more likely to engage in sexting behaviour.*

An independent *t*-test was carried out to discover whether there are any gender differences in sexting behaviours among emerging adults in Malaysia (see Table 6). The results indicated that there were significant differences,  $t(195) = 3.382, p = .001$ , in the mean scores for males ( $M = 19.64, SD = 7.68$ ) was higher than females ( $M = 16.13, SD = 6.59$ ). As a result,  $H_1$  was supported.

Table 6

#### *Independent Sample t-test*

	Sexting behaviour					
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Male	111	19.64	7.684	3.382	195	.001
Female	86	16.13	6.590			

*Note.* M= Mean, SD= Standard Deviation

### Relationship Status and Sexting Behaviour

Research Question 2: Does relationship status differ in sexting behaviours among emerging adults in Malaysia?

*H<sub>2</sub>: There is a difference in sexting behaviour between emerging adults who are in a relationship and single.*

An independent *t*-test was conducted to figure out whether relationship status differs in sexting behaviours among emerging adults in Malaysia (see Table 7). The results indicated that there were significant differences,  $t(195) = -2.169, p = .031$ , in the mean scores for single ( $M = 17.21, SD = 7.09$ ) was lower than those who are in a relationship ( $M = 19.54, SD = 7.74$ ). As a result,  $H_2$  was supported.

Table 7

#### *Independent Sample t-test*

	Sexting behaviour					
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Single	121	17.21	7.093	-2.169	195	.031
In a relationship	76	19.54	7.740			

*Note:* *M*= Mean, *SD*= Standard Deviation

### Predictors of Sexting Behaviour

Research Question 3: Does loneliness associated with sexting behaviours among emerging adults in Malaysia?

Research Question 4: Does intention of sexual activity associated with sexting behaviours among emerging adults in Malaysia?

Research Question 5: Does the need for popularity associated with sexting behaviours among emerging adults in Malaysia?

Research Question 6: Does perceived peer pressure associated with sexting behaviours among emerging adults in Malaysia?

*H3: Emerging adults who are high in loneliness are more likely to engage in sexting behaviour.*

*H4: Emerging adults who are high in the intention of sexual activity are more likely to engage in sexting behaviour.*

*H5: Emerging adults who are high in need of popularity are more likely to engage in sexting behaviour.*

*H6: Emerging adults high in perceived peer pressure are more likely to engage in sexting behaviour.*

The Pearson Product-Moment Correlation test was utilised in the present study to analyse the relationship between loneliness, intention of sexual activity, the need for popularity, perceived peer pressure, and sexting behaviour among emerging adults in Malaysia. The results showed that there were significant association between loneliness and sexting behaviour,  $r(195) = .134, p = .030$ , the intention of sexual activity and sexting behaviour  $r(195) = .366, p < .001$ , the need of popularity and sexting behaviour  $r(195) = .302, p < .001$ , as well as perceived peer pressure and sexting behaviour  $r(195) = .241, p < .001$  among emerging adults in Malaysia. According to Cohen (1992), the correlation coefficient of loneliness and sexting behaviour was a small effect ( $ES = .10$ ). While the effect size of the association between intention of sexual activity, the need for popularity, and perceived peer pressure on sexting behaviour were medium effect ( $ES = .30$ ).

Table 8

*Correlation among variables (n = 197)*

Variables	1	2	3	4
1. Sexting Behaviour	1			
2. Loneliness	.134*	1		
3. Intention of Sexual Activity	.366***	.137*	1	
4. Need for Popularity	.302***	.360***	.274***	1
5. Perceived Peer Pressure	.241***	.329***	.208**	.546***

Note: One-tailed test; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

A two-stage Hierarchical Multiple Linear Regression Analysis was conducted with sexting behaviour as the dependent variable. Age, gender, and relationship status were tested in stage one to control their responses. At stage two, loneliness, intention of sexual activity, the need for popularity, and perceived peer pressure were added. Table 9 presents the results of the study. At stage one, age, gender and relationship status showed statistically significant to the regression model,  $F(3, 193) = 9.954, p < .001$  and accounted for 13.4% variance. In stage two, the inclusion of loneliness, intention of sexual activity, the need for popularity, and perceived peer pressure were statistically significant to the regression model,  $F(7, 189) = 8.119, p < .001$  and accounted for 20.3% variance. The added variables explained that this change in  $R^2$  was significant and accounted for an additional 9.7% variance. Among the predictors, age ( $\beta = .163, p < .05$ ) and intention of sexual activity ( $\beta = .248, p < .001$ ) were significant predictors of sexting behaviour. However, gender ( $\beta = .122, p = .078$ ), relationship status ( $\beta = -.100, p = .139$ ), loneliness ( $\beta = .012, p = .865$ ), the need for popularity ( $\beta = .120, p = .142$ ) and perceived peer pressure ( $\beta = .071, p = .361$ ) were not significant and negatively predicted sexting behaviour. The effect size was 0.13, which indicates a medium effect.

Table 9

*Hierarchical Multiple Linear Regression Analysis for Variables Predicting Sexting Behaviour*

Variables	Step 1			Step 2		
	<i>Beta</i>	<i>SE</i>	<i>p</i>	<i>Beta</i>	<i>SE</i>	<i>p</i>
Age	.224	.229	.001	.163	.223	.015
Gender (1=Male, 2=Female)	.241	1.003	<.001	.122	1.027	.078
Relationship Status (1=Single, 2=In a relationship)	-.134	1.038	.051	-.100	1.027	.139
Loneliness				.012	.106	.865
Intention of Sexual Activity				.248	.145	<.001
Need for Popularity				.120	.053	.142
Perceived Peer Pressure				.071	.198	.361
$R^2$		.134			.231	
$Adj.R^2$		.121			.203	
$\Delta R^2$		.134			.097	
$F$		9.954			8.119	
$df$		(3, 193)			(7, 189)	

### Chapter Summary

Overall, there were no extreme outliers in the present study. More than three indicators have achieved their normality assumption. Then, the assumption for multiple linear regression assumptions was met in the present study. Furthermore, Pearson's product-



moment correlation test showed that all the predictors were statistically associated with sexting behaviour. Then for the independent t-test, results showed a statistical difference in gender and relationship status with sexting behaviour. After the researchers had controlled the effect of age, gender, and relationship status in Hierarchical linear regression, only intention of the sexual activity was positively predicted sexting behaviour.

## **Chapter V**

### **Discussion and Conclusion**

#### **Introduction**

This chapter discussed the examined research questions in the present study with support from previous studies. The theoretical and practical implications, limitations, and future research recommendations were also presented in this chapter.

#### **Gender Differences and Sexting Behaviour**

The present study hypothesised that male emerging adults are more likely to engage in sexting behaviour. The results indicated differences between male and female respondents in sexting behaviours, in which males reported higher engagement in sexting behaviours. Therefore, the hypothesis in the present study was supported.

The present finding is consistent with Springston's (2017) study, which stated that males are more likely to sext due to sexual desire and pleasure. Meanwhile, most females receive negative comments and experiences when they sext, making them less likely to engage in sexting (Springston, 2017). Unlike the equal engagement of young adults, more male emerging adults participated in sexting than females. This can be explained by Erikson's psychosocial development theory, specifically during emerging adulthood when individuals undergo transformation from adolescence to young adulthood (Cherry, 2021). Since adolescence, emerging adults might have developed self-identity to build relationships with others (Eccles, 1999), including romantic relationships. Sexting, therefore, could serve as the platform for them to explore and develop such romantic relationships. A possible reason why male emerging adults engage in sexting might be due to their strong desire for sexual interaction compared to females. Moreover, most females reported being impacted by

the negative sides of sexting, such as being labelled as a 'slut' and leading to an issue of a sexual double standard (Farvid et al., 2016; Perkins et al., 2014). Thus, male emerging adults are less concerned and less likely to be affected by the negative sides of sexting.

Male emerging adults' desire and the need to build a romantic relationship by sending sexual messages might be linked to their strong sense of self-identity, such as masculinity of males. Seccombe (2018) denoted that masculinity is linked to a male's dominating in sexual interactions, leading them to a higher tendency for sexting. Besides, sexting might increase a male emerging adult's sexual pleasure and excitement when receiving sexual messages from strangers, friends, or even partners. As sexting was related to pleasure and sexual stimulation motivations (Burkett, 2015), it was also supported by Brodie et al. (2019), who stated that male adults who engaged in sexting reported higher sexual pleasure than females and those who did not sext.

Therefore, the desire for sexual interaction, strong masculinity, and increased sexual pleasure could be the possible reasons why male emerging adults in Malaysia are more likely to participate in sexting behaviour than their female counterparts.

### **Relationship Status and Sexting Behaviour**

The findings supported the hypothesis in the present study, which proposed that there is a difference in sexting behaviour between emerging adults who are in a relationship and those who are single. Past studies discovered that both single individuals (Bianchi et al., 2021; Lehmilller et al., 2020) and individuals who are in a relationship (Samimi & Alderson, 2014; Temple et al., 2012; van Ouytsel et al., 2014) engage in sexting, although their intentions may be different. However, the findings of the current study discovered that individuals who are in a relationship are more likely to engage in sexting.

Single individuals engage in sexting may be due to the loneliness or boredom that they experience. This is supported by Lehmiller et al. (2020), who found that single individuals engage in sexting because they may feel lonely and urged to strengthen their bonds with strangers, especially during the lockdown. As for individuals in a relationship, they may engage in sexting as sexting may help maintain relationships. According to an Ouytsel et al. (2014), sexting is widespread among adolescents as sexting can play a crucial role in teen communication within romantic relationships. Similarly, past studies also discovered that sexting is also used to begin or secure a sexually intimate relationship (Delevi & Weisskirch, 2013; Samimi & Alderson, 2014; Temple et al., 2012).

Sexting is more applicable to couples experiencing long-distance relationships, especially during the period of lockdown. they are unable to encounter one another face-to-face due to the restrictions from leaving their homes (Bianchi et al., 2021; van Ouytsel et al., 2020). As a result, sexting may be a substitution for couples who experience long-distance relationships to communicate their sexual urges and secure yet strengthen their intimate relationship (Hertlein & Ancheta, 2014). This may also explain why the present study's findings discovered that emerging adults in this study are more likely to engage in sexting. In short, it can be concluded that there is a difference in sexting behaviour between emerging adults who are in a relationship and single, although their intention to engage in sexting may be different.

### **Loneliness and Sexting Behaviour**

The researchers hypothesised that high loneliness in emerging adults would predict high engagement in sexting. However, in the present study, the results have found that the level of loneliness among Malaysian emerging adults might not be associated with sexting behaviour. This result can be due to the locus of control that they take. If individuals think that their lives are under their control, they may try to reduce this feeling of loneliness by expanding social networks. Hence, they may engage in sexting behaviour. On the other hand, if individuals think that lives are not under their control, they may choose to isolate themselves and accept the fate that they cannot reduce their feeling of loneliness.

This justification is supported by Mikulincer and Segal (1990), who mentioned that lonely people with high optimism believe they have a high internal locus of control towards the end of the loneliness. Their high optimistic hope may manifest in a high need to reform close relationships with others (Mikulincer & Segal, 1990). On the other hand, individuals with high loneliness will think that loneliness feelings are not what they can control, and they believe that their efforts will not alleviate loneliness (Mikulincer, 1988, as cited in Mikulincer & Segal, 1990). As they are repeatedly disappointed in forming close relationships and are unsuccessful in reducing loneliness, they may feel helpless and give up forming any social circle with other people (Mikulincer, 1988, as cited in Mikulincer & Segal, 1990).

In conclusion, the result showed that high loneliness in emerging adults in Malaysia is not related to an increase in sexting behaviour. Instead, it can be explained by lonely people with a high external locus of control who think that the feeling of loneliness is beyond their control. As a result, they will form a sense of helplessness and have less sexual desire. However, this explanation may need further examination in future studies.

### **Intention of Sexual Activity and Sexting Behaviour**

The present study hypothesised that emerging adults who are high on the intention of sexual activity are more likely to engage in sexting behaviour. Thus, the hypothesis was supported as the results showed that the higher intention of sexual activity was strongly associated with sexting behaviours after controlling the effect of one's age, gender, and relationship status among emerging adults in Malaysia.

Although most of the past studies were focused on young adults, this result is similar to some of the findings, such as Temple et al. (2012)'s study, which found that young adults who engaged in sexting were more likely to participate in sexual activity such as sexual intercourse, compared to people who did not sext. Similarly, this result could be explained by the fact that emerging adults might also perceive sexting as one method of building a romantic or sexual relationship (Lennhart, 2009). According to the Triangular Theory of Love developed by Sternberg (1986), one of the components of a relationship is passion, where an individual is eager to find a partner for sexual purposes. Therefore, it increases their pleasure in a sexual activity instead of giving commitment or bonding in a relationship. Thus, sexting provides a platform to build a sexual relationship for those who report having high levels of intention toward sexual activity.

Apart from that, people with a high intention for sexual activity may need to release or satisfy their own sexual needs by looking for friends with benefits, one-night stands, booty calls, and others to achieve their goals. These terms are represented as casual sex relationships (Förster et al., 2010). This type of relationship can be approached through digital devices, which could also be linked to sexting (Jonason et al., 2009). As a result, it can be concluded that emerging adults who have a higher intention of sexual activity are seeking

sexual relationships as well as sexual fulfilment, which may lead them to engage in sexting behaviour.

### **The Need for Popularity and Sexting Behaviour**

The present study hypothesised that emerging adults who are high in need for popularity are more likely to engage in sexting behaviour. The findings of the current study demonstrated different results from the past studies, which indicated that individuals with a higher-level need for popularity are more prone to engage in sexting (Gewirtz-Meydan et al., 2018; Vanden Abeele et al., 2014).

Apart from that, several past studies have illustrated that male adolescents tend to collect sexting messages to gain status among their peers (Ringrose et al., 2012; van Ouytsel et al., 2014). Similarly, Walrave et al. (2015) also mentioned that self-produced intimate contents have a higher value compared to “professionally” produced pornographies and those self-produced content enable a male adolescent to prove his ability to obtain females’ images or video, resulting in strengthening or gaining his popularity within the peer group. Consequently, this could be the possible reason why many individuals, especially adolescents, engage in sexting behaviour. However, these past studies are mainly conducted among adolescents but not emerging adults. This may be due to popularity among emerging adults being related to likeability rather than power, attractiveness, fitting in, or antisocial behaviour, compared with adolescents (Lansu et al., 2022). Another possible reason is that adolescents may focus more on strengthening popularity and peer status, gaining peer recognition and peer acceptance (Baumgartner et al., 2015; Vanden Abeele et al., 2014), whereas emerging adults may place more attention on developing the characteristics required for self-sufficiency, or even assuming more adult roles and responsibilities (Wood et al.,

2017). Hence, it can explain the inconsistency gap between the results of the present study and the literature.

In addition, another possible reason for the contradictory results may be that Malaysians do not brag about it when they sext, as Malaysia is a highly conservative country where sex is considered taboo. Therefore, they are more likely to sext for other reasons, but not for the need for popularity as Malaysia is unlike other Western countries, which is more open to the topic of sex. Therefore, this can explain why the need for popularity does not link to the tendency to engage in sexting among Malaysian emerging adults.

### **Perceived Peer Pressure and Sexting Behaviour**

The present study hypothesised that emerging adults who in perceived peer pressure tend to engage in sexting behaviour. However, the findings of the current study contradicted several past studies, which indicated that individuals have a higher tendency to engage in sexting when they perceive pressure from their peer groups (Adimora et al., 2018; Champion & Pedersen, 2015; Lee et al., 2013; Rice et al., 2012).

However, the findings of this study are still in agreement with a past study by Vanden Abeele et al. (2014), which indicated that there is no correlation between perceived peer pressure and sexting behaviour. A possible reason for this might be that the pressure for an individual to be involved in sexting does not come primarily from their peers but from their romantic partner (Vanden Abeele et al., 2014). According to Drouin and Tobin (2014), adults with attachment anxiety have a strong desire to be connected to their partners and are highly pressured or fearful that their partners will abandon them within romantic relationships.

Another possible reason for this contradictory result is that peers are no longer influential or prominent figures during emerging adulthood because emerging adults are more concerned with self-development and intimacy. This was also supported by Lansu and



Cillessen (2011), who indicated that the most significant developmental tasks in emerging adulthood are work and romantic relationships, but not peers. Thus, it can explain the inconsistency gap between past and present studies.

### **Theoretical Implications**

Problem Behaviour Theory (PBT) was utilised to frame this study's conceptual framework to better understand the factors associated with sexting behaviour among emerging adults in Malaysia. According to this framework, both environmental and personality factors play a role in the occurrence of problem behaviour. As a result, in this study, personality factors refer to loneliness, the intention of sexual behaviour, and the need for popularity, whereas environmental factor refers to perceived peer pressure. The results of the present study found that only intention of sexual activity predicts sexting behaviour, which is one of the factors from personal factors. Moreover, loneliness and the need for popularity from personality factors do not predict sexting behaviour, whereas perceived peer pressure from the environmental factor is not associated with sexting behaviour. Hence, the results partially aligned with Problem Behaviour Theory (PBT).

The results of the present study have contributed new knowledge into PBT as one of the personal factors, which is the intention of sexual activity significantly associated with sexting behaviour. Hence, the results showed that personal factors take more weightage in sexting behaviour than environmental factors. For example, even if individuals are under peer pressure to sext, whether they may or may not do so depends on their intention in sexting behaviour. According to Schröder et al. (2013), any intention can lead to a particular behaviour. As a result, if individuals have an intention in mind, the environment will not be a primary motivator for them to engage in sexting.

In conclusion, the results of the present study could also provide information to future scholars who would like to conduct research in the field of sexting. The present results allow future scholars to investigate the possible reasons for the inconsistent results from previous studies. Furthermore, it would also help extend the perspective on Problem Behaviour Theory (PBT) if further studies were conducted on this topic.

### **Practical Implications**

Since there has been limited research on sexting in Malaysia, the findings of this study may be valuable in allowing local practitioners to personalise and construct effective interventions to control sexting behaviour. Providing the results proposed by previous researchers may help to reduce the negative consequences that sexting may bring to the public.

Based on the present study, the result showed that age is an essential indicator of sexting behaviour in Malaysia. Hence, the intervention program can be focused on emerging adults. Primarily, since the current study's findings revealed that sexting behaviour is significantly associated with sexual activity, several implications for sexting in sex education and promoting sexual health are recommended (Castaeda, 2017). For instance, sexting could be used as part of interventions to teach Malaysian emerging adults the effective ways to communicate with their partners about sexual pleasure, safe sex practices, and contraceptives. These programs can be implemented in organisations, clinics, health centres, community centres, universities, and other suitable settings for sex education.

The emphasis on sexual conversations could talk about the positive side of sexting on how it can be a sexual and fun method to discuss intimacy with partners. For example, role-playing sexting that does not require any images or sex, only exact words describing sexual interactions, or even short comedy production could help people and couples in developing

constructive sexting methods for their relationships. Other than that, sexting education programs may also provide more information on how to discuss intimacy with a partner face-to-face. In addition, educating the ways to communicate appropriately in digital forms of communication, such as sexting, could decrease the obstacles to sexual communication face-to-face and conversely.

Based on the results of this study, most of the participants reported high intention for sexual activity, which might involve a rising in risky sex. To reduce risky sexual activity among emerging adults, the government, organisations, or other authorities can implement some sexual education programmes. For example, Project Adult Identity Mentoring (AIM) emphasises that a positive future identity could serve as a challenging adult objective for at-risk adolescents, allowing them to obtain ambitions that violate risky activities. As a result, most of the students who engaged in AIM were able to quit and less likely to have the intention of sexual activity than those who did not engage in this program (Clark et al., 2005).

### **Limitations**

There are several limitations to be noted when interpreting the study results. First, based on the results of participants' recruitment, there are an unequal number of genders and ethnicity in the present study. This shows that the results might not be highly accurate due to the sampling bias that cannot represent all emerging Malaysian adults. Hence, the results might not be generalised to Malaysian emerging adults.

Moreover, the present study utilised a cross-sectional study that was only conducted in a single period through observation. Thus, the researchers cannot investigate the cause-and-effect relationship of sexting behaviour. Furthermore, as the sexting behaviour could not be persistent and could change over time, the researchers cannot explore in depth the changes in sexting that the potential predictors might influence. Therefore, the results of

this study are not sufficient and lack strong justifications to prove the correlation between sexting behaviour.

Finally, the questionnaires that the researchers used were self-report questionnaires. Therefore, the researchers may get incorrect responses as the respondents may not answer honestly or truthfully while responding to the items (Demetriou et al., 2015), especially the sensitive subjects, such as 'How many people have you exchanged provocative pictures or texts with?'. This tendency is referred to as Social Desirability Bias, and it occurs when people respond in a socially acceptable way (Demetriou et al., 2015). Furthermore, the participants might not understand the question's meaning as it was too ambiguous or unclear to Malaysian respondents. According to Sullivan and Artino Jr (2017), respondents will interpret ambiguous questions differently, reducing the scale's usefulness.

### **Recommendations**

There are several suggestions for future research in this study. First, future researchers should recruit an equal number of ethnic groups as Malaysia is a multi-ethnic country. For instance, they can collect data using the most recent percentages of ethnic groups in the country from the Department of Statistics Malaysia to better reflect the Malaysian population. This could reduce sampling bias, and the results are strong enough to justify the study's information and represent the Malaysian population.

Furthermore, future researchers could consider conducting a cause-and-effect relationship to further study sexting behaviour. This can be achieved by conducting a longitudinal study that tracks specific persons over long periods, using continuous or recurring surveys (Caruana et al., 2015). By using a longitudinal study, future research might have a chance to investigate how changes in predictors, such as loneliness, sexual intention, need for popularity, and perceived peer pressure, were linked to changes in sexting behaviour

over time. In addition, they will be able to investigate the potential causes of these changes. It is beneficial for governments and the public as they may better understand the issue and be cautious of the potential negative consequences of sexting.

For the questionnaire, short, simple, and straightforward questions phrased in daily language are recommended (Demetriou et al., 2015), as respondents from certain areas may not understand certain words used by the questionnaire. Therefore, it is recommended that future researchers may modify some sentences in the questionnaire to suit the preferences of respondents without changing the meaning of the question. Then, to reduce the Social Desirability Bias in research, future research can purposely load the question to suggest that others also engage in the behaviour to lessen reporting bias (Choi & Park, 2005). For instance, 'Other people engage in various sexting activities, and some may engage in the sexting activity that others do not. Have you shared any provocative pictures or texts with others before?'

Finally, as the researchers discovered that age was the critical factor for sexting behaviour after conducting hierarchical multiple linear regression, future research can conduct a moderation study design. For example, future researchers can attempt to use gender, relationship status, or age as a moderating variable that can potentially shift the relationship's direction. In addition, it can help to explain the relationships between the independent and dependent variables (Allen, 2017). This can be done by providing more information on the relationship between variables in quantitative research by illustrating the variables that can make the link between predictors and sexting behaviour stronger, weaker, or even disappear (Allen, 2017).

### References

- Adimora, D. E., Akaneme, I. N., & Aye, E. N. (2018). Peer pressure and home environment as predictors of disruptive and risky sexual behaviours of secondary school adolescents. *African Health Sciences, 18*(2). <https://doi.org/10.4314/ahs.v18i2.4>
- Allen, M. (Ed.). (2017). *The SAGE encyclopedia of communication research methods*. SAGE publications.
- Alpalhão, M., & Filipe, P. (2020). The impacts of isolation measures against SARS-CoV-2 infection on sexual health. *AIDS and Behavior, 24*(8), 2258–2259.
- American Psychology Association. (2020). *APA Dictionary of Psychology*. <https://www.apa.org/>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: Implications for mental health. *The Lancet Psychiatry, 1*(7), 569-576. [https://doi.org/10.1016/s2215-0366\(14\)00080-7](https://doi.org/10.1016/s2215-0366(14)00080-7)
- Arof, K. Z. M., Ismail, S., & Saleh, A. L. (2018). Contractor's performance appraisal system in the Malaysian construction industry: Current practice perception and understanding. *Int. J. Eng. Technol., 7*(3), 46-51. <http://dx.doi.org/10.14419/ijet.v7i3.9.15272>

- Aunola, K., & Nurmi, J. E. (2004). Maternal affection moderates the impact of psychological control on a child's mathematical performance. *Developmental Psychology, 40*(6), 965–978. <https://doi.org/10.1037/0012-1649.40.6.965>
- Bailey, J., & Hanna, M. (2011). The gendered dimensions of sexting: Assessing the applicability of Canada's child pornography provision. *Canadian Journal of Women and the Law, 23*(2), 405–441. <https://doi.org/10.3138/cjwl.23.2.405>
- Bauman, S. (2015). "Cyberbullying and sexting: school mental health concerns," in *mental health practice in today's schools: Issues and interventions*, eds R. H. Witte and G. S. Mosley-Howard (New York, NY: Springer), 450–460.
- Baumgartner, S. E., Sumter, S. R., Peter, J., & Valkenburg, P. M. (2015). Sexual self-presentation on social network sites: Who does it and how is it perceived? *Computers in Human Behavior, 50*, 91-100. <https://doi.org/10.1016/j.chb.2015.03.061>
- Benotsch, E. G., Snipes, D. J., Martin, A. M., & Bull, S. S. (2013). Sexting, substance use, and sexual risk behavior in young adults. *Journal of Adolescent Health, 52*(3), 307–313. <https://doi.org/10.1016/j.jadohealth.2012.06.011>
- Berdychevsky, L., & Carr, N. (2020). Innovation and impact of sex as leisure in research and practice: Introduction to the special issue. *Leisure Sciences, 42*(3–4), 255–274. <https://doi.org/10.1080/01490400.2020.1714519>
- Berkowitz, A. D. (2004). *The social norms approach: theory, research and annotated bibliography*. Higher Education Center for Alcohol and Other Drug Abuse and Violation Prevention. U.S. Department of Education.

- Bianchi, D., Baiocco, R., Lonigro, A., Pompili, S., Zammuto, M., di Tata, D., Morelli, M., Chirumbolo, A., di Norcia, A., Cannoni, E., Longobardi, E., & Laghi, F. (2021). Love in quarantine: Sexting, stress, and coping during the COVID-19 lockdown. *Sexuality Research and Social Policy*, 1-14. <https://doi.org/10.1007/s13178-021-00645-z>
- Brodie, Z. P., Wilson, C., & Scott, G. G. (2019). Sextual intercourse: Considering social-cognitive predictors and subsequent outcomes of sexting behavior in adulthood. *Archives of Sexual Behavior*, 48(8), 2367–2379. <https://doi.org/10.1007/s10508-019-01497-w>
- Buhrmester, D. (1992). *Network of relationship questionnaire-relationship quality version*. Unpublished questionnaire. Richardson TX: University of Texas at Dallas.
- Burén, J., & Lunde, C. (2018). Sexting among adolescents: A nuanced and gendered online challenge for young people. *Computers in Human Behavior*, 85, 210-217. <https://doi.org/10.1016/j.chb.2018.02.003>
- Burkett, M. (2015). Sex(t) Talk: A qualitative analysis of young adults' negotiations of the pleasures and perils of sexting. *Sexuality & Culture*, 19(4), 835–863. <https://doi.org/10.1007/s12119-015-9295-0>
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York: Routledge
- Cain, M. K., Zhang, Z., & Yuan, K.-H. (2017). Univariate and multivariate skewness and kurtosis for measuring nonnormality: Prevalence, influence and estimation.



*Behavior Research Methods*, 49(5), 1716–1735. <https://doi.org/10.3758/s13428-016-0814-1>

Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. *Journal of thoracic disease*, 7(11), E537.

<https://dx.doi.org/10.3978%2Fj.issn.2072-1439.2015.10.63>

Casas, J. A., Ojeda, M., Elipe, P., & Del Rey, R. (2019). Exploring which factors contribute to teens' participation in sexting. *Computers in Human Behavior*, 100, 60-69.

<https://doi.org/10.1016/j.chb.2019.06.010>

Castañeda, D. M. (2017). Sexting and sexuality in romantic relationships among Latina/o emerging adults. *American Journal of Sexuality Education*, 12(2), 120–135.

<https://doi.org/10.1080/15546128.2017.1298069>

Chalfen, R. (2009). 'It's only a picture': sexting, 'smutty' snapshots and felony charges.

*Visual Studies*, 24(3), 258–268. <https://doi.org/10.1080/14725860903309203>

Champion, A. R., & Pedersen, C. L. (2015). Investigating differences between sexters and non-sexters on attitudes, subjective norms, and risky sexual behaviours. *The Canadian Journal of Human Sexuality*, 24(3), 205-214.

*The Canadian Journal of Human Sexuality*, 24(3), 205-214.

<https://doi.org/10.3138/cjhs.243-a5>

Cherry, K. (2019). How does the cross-sectional research method work? *UpToDate*.

Retrieved October 19, 2019, from <https://www.verywellmind.com/what-is-a-cross-sectional-study-2794978>

- Cherry, K. (2021, July 18). *Erik Erikson's stages of psychosocial development*. VeryWell Mind; Dotdash. <https://www.verywellmind.com/erik-eriksons-stages-of-psychosocial-development-2795740>
- Choi, B. C., & Pak, A. W. (2005). Peer reviewed: a catalog of biases in questionnaires. *Preventing chronic disease, 2*(1).
- Clancy, E. M., Klettke, B., & Hallford, D. J. (2018). The dark side of sexting – Factors predicting the dissemination of sexts. *Computers in Human Behavior, 92*, 266–272. <https://doi.org/10.1016/j.chb.2018.11.023>
- Clark, L. F., Miller, K. S., Nagy, S. S., Avery, J., Roth, D. L., Liddon, N., & Mukherjee, S. (2005). Adult identity mentoring: Reducing sexual risk for African-American seventh grade students. *Journal of Adolescent Health, 37*(4), 337.e1–337.e10. <https://doi.org/10.1016/j.jadohealth.2004.09.024>
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Common Sense Media. 2020. Survey Monkey poll: How teens are coping and connecting in the time of the coronavirus. [https://www.commonsensemedia.org/sites/default/files/uploads/pdfs/2020\\_survey\\_monkey-key-findings-toplines-teens-and-coronavirus.pdf](https://www.commonsensemedia.org/sites/default/files/uploads/pdfs/2020_survey_monkey-key-findings-toplines-teens-and-coronavirus.pdf)
- Cooper, K., Quayle, E., Jonsson, L., & Svedin, C. G. (2016). Adolescents and self-taken sexual images: A review of the literature. *Computers in Human Behavior, 55*, 706–716. <https://doi.org/10.1016/j.chb.2015.10.003>

- Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexuality Education, 7*(1), 1–15. <https://doi.org/10.1080/15546128.2012.650959>
- Daoud, J. I. (2017, December). Multicollinearity and regression analysis. In *Journal of Physics: Conference Series* (Vol. 949, No. 1, p. 012009). IOP Publishing.
- de Oliveira, L., & Carvalho, J. (2020). The Link Between Boredom and Hypersexuality: A Systematic Review. *The Journal of Sexual Medicine, 17*(5), 994–1004. <https://doi.org/10.1016/j.jsxm.2020.02.007>
- del Rey, R., Ojeda, M., Casas, J. A., Mora-Merchán, J. A., & Elipe, P. (2019). Sexting among adolescents: The emotional impact and influence of the need for popularity. *Frontiers in Psychology, 10*. <https://doi.org/10.3389/fpsyg.2019.01828>
- Delevi, R., & Weisskirch, R. S. (2013). Personality factors as predictors of sexting. *Computers in Human Behavior, 29*(6), 2589-2594. <https://doi.org/10.1016/j.chb.2013.06.003>
- Demetriou, C., Ozer, B. U., & Essau, C. A. (2015). Self-report questionnaires. *The Encyclopedia of Clinical Psychology, 1–6*. <https://doi.org/10.1002/9781118625392.wbecp507>
- Dir, A. (2012). *Understanding sexting behaviors, sexting expectancies, and the role of impulsivity in sexting behaviors* (Postgraduate). Purdue University.

- Dir, A. L., & Cyders, M. A. (2014). Risks, risk factors, and outcomes associated with phone and internet sexting among university students in the United States. *Archives of Sexual Behavior*, *44*(6), 1675–1684. <https://doi.org/10.1007/s10508-014-0370-7>
- Dir, A. L., Coskunpinar, A., Steiner, J. L., & Cyders, M. A. (2013). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, *16*(8), 568–574. <https://doi.org/10.1089/cyber.2012.0545>
- Dir, A. L., Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, *29*(4), 1664–1670. <https://doi.org/10.1016/j.chb.2013.01.039>
- Donovan, J. E. (1996). Problem-behavior theory and the explanation of adolescent marijuana use. *Journal of drug issues*, *26*(2), 379-404. <https://doi.org/10.1177/002204269602600205>
- Döring, N. (2020). How is the COVID-19 pandemic affecting our sexualities? An overview of the current media narratives and research hypotheses. *Archives of Sexual Behavior*, *49*(8), 2765–2778. <https://doi.org/10.1007/s10508-020-01790-z>
- Drouin, M., & Landgraff, C. (2012). Texting, sexting, and attachment in college students' romantic relationships. *Computers in Human Behavior*, *28*(2), 444–449. <https://doi.org/10.1016/j.chb.2011.10.015>

- Drouin, M., & Tobin, E. (2014). Unwanted but consensual sexting among young adults: Relations with attachment and sexual motivations. *Computers in Human Behavior*, 31, 412-418. <https://doi.org/10.1016/j.chb.2013.11.001>
- Drouin, M., Ross, J., & Tobin, E. (2015). Sexting: A new, digital vehicle for intimate partner aggression? *Computers in Human Behavior*, 50, 197–204. <https://doi.org/10.1016/j.chb.2015.04.001>
- Eccles, J. S. (1999). The development of children ages 6 to 14. *The Future of Children*, 9(2), 30–44. <https://pubmed.ncbi.nlm.nih.gov/10646256/>
- Ein-Dor, T., & Hirschberger, G. (2012). Sexual healing. *Journal of Social and Personal Relationships*, 29(1), 126–139. <https://doi.org/10.1177/0265407511431185>
- Englander, E. (2015). Coerced sexting and revenge porn among teens. *Bullying, Teen Aggression & social media*, 1(2), 19-21.
- Etikan, I., & Bala, K. (2017). Combination of probability random sampling method with non-probability random sampling method (sampling versus sampling methods). *Biometrics & Biostatistics International Journal*, 5(6). <https://doi.org/10.15406/bbij.2017.05.00148>
- Farvid, P., Braun, V., & Rowney, C. (2016). “No girl wants to be called a slut!?”: women, heterosexual casual sex and the sexual double standard. *Journal of Gender Studies*, 26(5), 544–560. <https://doi.org/10.1080/09589236.2016.1150818>
- Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications Inc.

- Förster, J., Özelsel, A., & Epstude, K. (2010). How love and lust change people's perception of relationship partners. *Journal of Experimental Social Psychology*, *46*(2), 237–246. <https://doi.org/10.1016/j.jesp.2009.08.009>
- Furman, W., & Buhrmester, D. (2009). Methods and measures: The network of relationships inventory: Behavioral systems version. *International Journal of Behavioral Development*, *33*(5), 470–478. <https://doi.org/10.1177/0165025409342634>
- Gámez-Guadix, M., & Mateos-Pérez, E. (2019). Longitudinal and reciprocal relationships between sexting, online sexual solicitations, and cyberbullying among minors. *Computers in Human Behavior*, *94*, 70-76. <https://doi.org/10.1016/j.chb.2019.01.004>
- Garcia, J. R., Gesselman, A. N., Siliman, S. A., Perry, B. L., Coe, K., & Fisher, H. E. (2016). Sexting among singles in the USA: prevalence of sending, receiving, and sharing sexual messages and images. *Sexual Health*, *13*(5), 428. <https://doi.org/10.1071/sh15240>
- García-Gómez, L., Hernández-Pérez, A., Noé-Díaz, V., Riesco-Miranda, J. A., & Jiménez-Ruiz, C. (2019). Smoking cessation treatments: Current psychological and pharmacological options. *Revista de Investigacion Clinica*, *71*(1). <https://doi.org/10.24875/ric.18002629>
- Gewirtz-Meydan, A., Mitchell, K. J., & Rothman, E. F. (2018). What do kids think about sexting? *Computers in Human Behavior*, *86*, 256-265. <https://doi.org/10.1016/j.chb.2018.04.007>

- Ghorashi, Z. (2019). Teenage sexting and sexual behaviors in an Iranian setting. *Sexuality & Culture, 23*(4), 1274–1282. <https://doi.org/10.1007/s12119-019-09622-6>
- Gómez, L. C., & Ayala, E. S. (2014). Psychological aspects, attitudes and behaviour related to the practice of sexting: A systematic review of the existent literature. *Procedia - Social and Behavioral Sciences, 132*, 114–120. <https://doi.org/10.1016/j.sbspro.2014.04.286>
- Gregg, D., Somers, C. L., Pernice, F. M., Hillman, S. B., & Kernsmith, P. (2018). Sexting rates and predictors from an Urban Midwest High School. *Journal of School Health, 88*(6), 423–433. <https://doi.org/10.1111/josh.12628>.
- Hays, R., & DiMatteo, M. R. (1987). A short-form measure of loneliness. *Journal of Personality Assessment, 51*(1), 69–81. [https://doi.org/10.1207/s15327752jpa5101\\_6](https://doi.org/10.1207/s15327752jpa5101_6)
- Hertlein, K. M., & Ancheta, K. (2014). Advantages and disadvantages of technology in relationships: Findings from an open-ended survey. *The Qualitative Report, 19*, 1–11. <https://nsu-works.nova.edu/tqr/vol19/iss11/2>
- Houck, C. D., Barker, D., Rizzo, C., Hancock, E., Norton, A., & Brown, L. K. (2014). Sexting and sexual behavior in at-risk adolescents. *Pediatrics, 133*(2), e276–e282. <https://doi.org/10.1542/peds.2013-1157>
- Hudson, H. K., & Marshall, S. A. (2017). Consequences and predictors of sexting among selected southern undergraduates. *International Journal of Sexual Health, 30*(1), 20–27. <https://doi.org/10.1080/19317611.2017.1404540>

In, J. (2017). Introduction of a pilot study. *Korean journal of anesthesiology*, 70(6), 601.

<https://dx.doi.org/10.4097%2Fkjae.2017.70.6.601>

Jessor, R. (1987). Risky driving and adolescent problem behavior: an extension of problem-behavior theory. *Alcohol, Drugs & Driving*.

Jessor, R., & Jessor, S. L. (1977). Problem behavior and psychosocial development: A longitudinal study of youth. *New York: Academic*.

Jonason, P. K., LI, Norman P., & Cason, M. J. (2009). The “booty call”: A compromise between men and women’s ideal mating strategies. *Journal of Sex Research*, 46(5), 460-470. <http://dx.doi.org/10.1080/00224490902775827>

Karaman, N. G. (2013). Predicting the problem behavior in adolescents. *Eurasian Journal of Educational Research*, 52, 137-154.

Keyzers, A., Lee, S. K., & Dworkin, J. (2020). Peer pressure and substance use in emerging adulthood: A latent profile analysis. *Substance Use & Misuse*, 55(10), 1716–1723. <https://doi.org/10.1080/10826084.2020.1759642>

Kika, T. (2021). *1.5 Billion facebook users’ personal information allegedly posted for sale*. Newsweek. <https://www.newsweek.com/15-billion-facebook-users-personal-information-posted-sale-after-hack-1635439>

Kim, M. (2020). Instagram selfie-posting and young women’s body dissatisfaction: Investigating the role of self-esteem and need for popularity. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 14(4). <https://doi.org/10.5817/cp2020-4-4>



- Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review, 34*(1), 44–53.  
<https://doi.org/10.1016/j.cpr.2013.10.007>
- Kwak, S. K., & Kim, J. H. (2017). Statistical data preparation: management of missing values and outliers. *Korean journal of anesthesiology, 70*(4), 407.  
<http://dx.doi.org/10.4097/kjae.2017.70.4.407>
- Lansu, T. A., Findley-Van Nostrand, D., & Cillessen, A. H. (2022). Popularity according to emerging adults: What is it, and how to acquire it. *Emerging Adulthood, 21*6769682110666. <https://doi.org/10.1177/21676968211066668>
- Lee, C., Moak, S., & Walker, J. T. (2013). Effects of self-control, social control, and social learning on sexting behavior among South Korean youths. *Youth & Society, 48*(2), 242-264. <https://doi.org/10.1177/0044118x13490762>
- Lehmiller, J. J., Garcia, J. R., Gesselman, A. N., & Mark, K. P. (2020). Less Sex, but more sexual diversity: Changes in sexual behavior during the COVID-19 coronavirus pandemic. *Leisure Sciences, 43*(1–2), 295–304.  
<https://doi.org/10.1080/01490400.2020.1774016>
- Lenhart, A. (2009, December 15). *Teens and sexting*. Pew Research Center: Internet, Science & Tech. <https://www.pewresearch.org/internet/2009/12/15/teens-and-sexting/>
- Lindberg, L. D., Bell, D. L., & Kantor, L. M. (2020). The sexual and reproductive health of adolescents and young adults during the COVID-19 pandemic. *Perspectives on Sexual and Reproductive Health. https://doi.org/10.1363/psrh.12151*

- Lindgren, K. P., Parkhill, M. R., George, W. H., & Hendershot, C. S. (2008). Gender differences in perceptions of sexual intent: A qualitative review and integration. *Psychology of Women Quarterly*, 32(4), 423–439. <https://doi.org/10.1111/j.1471-6402.2008.00456.x>
- Ling, R. (2004). *The mobile connection: The cell phone's impact on society*. Elsevier.
- Lippman, J. R., & Campbell, S. W. (2014). Damned if you do, damned if you don't...If you're a girl: Relational and normative contexts of adolescent sexting in the United States. *Journal of Children and Media*, 8(4), 371-386. <https://doi.org/10.1080/17482798.2014.923009>
- Lippman, J., & Campbell, S. W. (2012). *Teenagers and sexting: Perceived norms and sexual double standard*. Paper presented at the annual meeting of the International Communication Association, Phoenix, AZ.
- Madigan, S., Ly, A., Rash, C. L., Van Ouytsel, J., & Temple, J. R. (2018). Prevalence of multiple forms of sexting behavior among youth. *JAMA Pediatrics*, 172(4), 327. <https://doi.org/10.1001/jamapediatrics.2017.5314>
- Maheux, A. J., Evans, R., Widman, L., Nesi, J., Prinstein, M. J., & Choukas-Bradley, S. (2020). Popular peer norms and adolescent sexting behavior. *Journal of Adolescence*, 78, 62–66. <https://doi.org/10.1016/j.adolescence.2019.12.002>
- McClendon, M. J. (2002). *Multiple regression and causal analysis*. Waveland Press.
- Mckellar, K., & Sillence, E. (2020a). Current research on sexual health and teenagers. *Teenagers, Sexual Health Information and the Digital Age*, 5–23. <https://doi.org/10.1016/b978-0-12-816969-8.00002-3>

- Midi, H., Sarkar, S. K., & Rana, S. (2010). Collinearity diagnostics of binary logistic regression model. *Journal of Interdisciplinary Mathematics*, 13(3), 253-267.  
<https://doi.org/10.1080/09720502.2010.10700699>
- Mikulincer, M., & Segal, J. (1990). Loneliness and the desire for intimacy: The intervening role of locus of control. *Personality and Individual Differences*, 12(8), 801-809.  
[https://doi.org/10.1016/0191-8869\(91\)90146-3](https://doi.org/10.1016/0191-8869(91)90146-3)
- Mohd Muhaiyuddin, N., Abu Bakar, H., & Hussin, H. (2015). Identifying the definitions of sexting phenomenon described by adolescents. *Aust. J. Basic & Appl. Sci.*, 9(37): 346-350, 2015
- Muhammad, N. A., Shamsuddin, K., Mohd Amin, R., Omar, K., & Thurasamy, R. (2017). Questionnaire development and validity to measure sexual intention among youth in Malaysia. *BMC Public Health*, 17(1). <https://doi.org/10.1186/s12889-016-3949-1>
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and social internet use: Pathways to reconnection in a digital world? *Perspectives on Psychological Science*, 13(1), 70–87. <https://doi.org/10.1177/1745691617713052>
- Ojeda, M., del Rey, R., & Hunter, S. C. (2019). Longitudinal relationships between sexting and involvement in both bullying and cyberbullying. *Journal of Adolescence*, 77, 81–89. <https://doi.org/10.1016/j.adolescence.2019.10.003>
- Osborne, J. W., & Overbay, A. (2004). The power of outliers (and why researchers should always check for them). *Practical Assessment, Research, and Evaluation*, 9(1), 6.  
<https://doi.org/10.7275/qf69-7k43>

- Parker, T. S., Blackburn, K. M., Perry, M. S., & Hawks, J. M. (2013). Sexting as an intervention: Relationship satisfaction and motivation considerations. *The American Journal of Family Therapy*, *41*(1), 1–12.  
<https://doi.org/10.1080/01926187.2011.635134>
- Penado, M., Rodicio-García, M. L., Marcos Cuesta, M., & Corrás, T. (2019). Construction and validation of the intimate images diffusion scale among adolescents. *Frontiers in Psychology*, *10*. <https://doi.org/10.3389/fpsyg.2019.01485>
- Perkins, A. B., Becker, J. V., Tehee, M., & Mackelprang, E. (2014). Sexting behaviors among college students: Cause for concern? *International Journal of Sexual Health*, *26*(2), 79–92. <https://doi.org/10.1080/19317611.2013.841792>
- Renfrow, D. G., & Rollo, E. A. (2014). Sexting on campus: Minimizing perceived risks and neutralizing behaviors. *Deviant Behavior*, *35*(11), 903-920.  
<https://doi.org/10.1080/01639625.2014.897122>
- Reyns, B. W., Henson, B., & Fisher, B. S. (2014). Digital deviance: Low self-control and opportunity as explanations of sexting among college students. *Sociological Spectrum*, *34*(3), 273–292. <https://doi.org/10.1080/02732173.2014.895642>
- Rice, E., Craddock, J., Hemler, M., Rusow, J., Plant, A., Montoya, J., & Kordic, T. (2017). Associations between sexting behaviours and sexual behaviours among mobile phone-owning teens in Los Angeles. *Child Development*, *89*, 110 -117.  
<https://doi.org/10.1111/cdev.12837>
- Rice, E., Rhoades, H., Winetrobe, H., Sanchez, M., Montoya, J., Plant, A., & Kordic, T. (2012). Sexually explicit cell phone messaging associated with sexual risk among

adolescents. *PEDIATRICS*, 130(4), 667-673. <https://doi.org/10.1542/peds.2012-0021>

Ringrose, J., Gill, R., Livingstone, S., & Harvey, L. (2012). A qualitative study of children, young people and 'sexting': a report prepared for the NSPCC, London, UK.

Ringrose, J., Harvey, L., Gill, R., & Livingstone, S. (2013). Teen girls, sexual double standards and 'sexting': Gendered value in digital image exchange. *Feminist Theory*, 14(3), 305-323. <https://doi.org/10.1177/1464700113499853>

Romo, D., Garnett, C., Younger, A., Stockwell, M., Soren, K., Catal-lozzi, M., & Neu, N. (2017). Social media use and its association with sexual risk and parental monitoring among a primarily Hispanic adolescent population. *Journal of Pediatric and Adolescent Gynecology*, 30, 466-473. <https://doi.org/10.1016/j.jpag.2017.02.004>

Russell, D. W. (1996). UCLA Loneliness Scale (version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66, 20-40. [https://doi.org/10.1207/s15327752jpa6601\\_2](https://doi.org/10.1207/s15327752jpa6601_2)

Samimi, P., & Alderson, K. G. (2014). Sexting among undergraduate students. *Computers in Human Behavior*, 31, 230–241. <https://doi.org/10.1016/j.chb.2013.10.027>

Santor, D. A., Messervey, D., & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *Journal of Youth and Adolescence*, 29(2), 163-182. <https://doi.org/10.1023/a:1005152515264>

- Scholes-Balog, K., Francke, N., & Hemphill, S. (2016). Relationships between sexting, self-esteem, and sensation seeking among Australian young adults. *Sexualization, Media, & Society*, 2(2), 237462381562779.  
<https://doi.org/10.1177/2374623815627790>
- Schröder, T., Stewart, T. C., & Thagard, P. (2014). Intention, emotion, and action: A neural theory based on semantic pointers. *Cognitive science*, 38(5), 851-880.  
<https://doi.org/10.1111/cogs.12100>
- Secombe, K. (2018). *Exploring marriages & families*. Pearson.
- Shah, M. F. (2021). *Malaysia has 28 million social media users as of January 2021, says Comms Ministry sec-gen*. The Star.  
[https://www.thestar.com.my/news/nation/2021/09/22/malaysia-has-28-million-social-media-users-as-of-january-2021-says-comms-ministry-sec-gen#:~:text=KUALA%20LUMPUR%20\(Bernama\)%3A%20There,most%20active%20in%20social%20media](https://www.thestar.com.my/news/nation/2021/09/22/malaysia-has-28-million-social-media-users-as-of-january-2021-says-comms-ministry-sec-gen#:~:text=KUALA%20LUMPUR%20(Bernama)%3A%20There,most%20active%20in%20social%20media).
- Shek, D. T. L. (2013). Sexual behavior and intention to engage in sexual behavior in junior secondary school students in Hong Kong. *Journal of Pediatric and Adolescent Gynecology*, 26(3), S33–S41. <https://doi.org/10.1016/j.jpag.2013.03.013>
- Shen, X., & Wang, J. L. (2019). Loneliness and excessive smartphone use among Chinese college students: Moderated mediation effect of perceived stressed and motivation. *Computers in Human Behavior*, 95, 31–36.  
<https://doi.org/10.1016/j.chb.2019.01.012>

- Shieh, G. (2010). On the misconception of multicollinearity in detection of moderating effects: Multicollinearity is not always detrimental. *Multivariate Behavioural Research, 45*, 483-507. <https://doi.org/10.1080/00273171.2010.483393>
- Sincero, S. M. (2012, March 18). Advantages and disadvantages of surveys. *UpToDate*. Retrieved from March 23, 2020, from <https://explorable.com/advantages-and-disadvantages-of-surveys>
- Springston, K. (2017). Gender differences in participation in and motivations for sexting: The effects of gender role attitudes, masculinity, and femininity. *Butler Journal of Undergraduate Research, 3*(1). <https://digitalcommons.butler.edu/bjur/vol3/iss1/9>
- Steinberg, L. (2008). A social neuroscience perspective on adolescent risk-taking. *Developmental Review, 28*(1), 78–106. <https://doi.org/10.1016/j.dr.2007.08.002>
- Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review, 93*(2), 119–135. <https://doi.org/10.1037/0033-295x.93.2.119>
- Sullivan, G. M., & Artino Jr, A. R. (2017). How to create a bad survey instrument. *Journal of graduate medical education, 9*(4), 411-415. <https://dx.doi.org/10.4300%2FJGME-D-17-00375.1>
- Temple, J. R., Paul, J. A., Van den Berg, P., Le, V. D., McElhany, A., & Temple, B. W. (2012). Teen sexting and its association with sexual behaviors. *Archives of Pediatrics & Adolescent Medicine, 166*(9). <https://doi.org/10.1001/archpediatrics.2012.835>
- Thang, S. M., Mohd Noor, N., Ng, L. S., Md Taha, A., & Abdul Aziz, N. B. (2017). Influence of social networking on Malaysian female secondary students: A

qualitative study across three schools. *Akademika*, 87(1), 267–278.

<https://doi.org/10.17576/akad-2017-8701-20>

Thomas, M. F., Binder, A., & Matthes, J. (2021). Sexting during social isolation: Predicting sexting-related privacy management during the COVID-19 pandemic.

*Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 15(3).

<https://doi.org/10.5817/cp2021-3-3>

Tomé, G., Matos, M., Simões, C., Diniz, J. A., & Camacho, I. (2012). How can peer group influence the behavior of adolescents: Explanatory model. *Global Journal of Health Science*, 4(2).

<https://doi.org/10.5539/gjhs.v4n2p26>

Tracy, J. L., Shaver, P. R., Albino, A. W., & Cooper, M. L. (2003). Attachment styles and adolescent sexuality. *Adolescent Romantic Relations and Sexual Behavior*, 149-

171. <https://doi.org/10.4324/9781410607782-12>

Utz, S., Tanis, M., & Vermeulen, I. (2012). It is all about being popular: The effects of need for popularity on social network site use. *Cyberpsychology, Behavior, and Social Networking*, 15(1), 37-42.

<https://doi.org/10.1089/cyber.2010.0651>

van Oosten, J. M., & Vandenbosch, L. (2017). Sexy online self-presentation on social network sites and the willingness to engage in sexting: A comparison of gender and age. *Journal of Adolescence*, 54, 42-50.

<https://doi.org/10.1016/j.adolescence.2016.11.006>

van Ouytsel, J., Lu, Y., Ponnet, K., Walrave, M., & Temple, J. R. (2019). Longitudinal associations between sexting, cyberbullying, and bullying among adolescents:



Cross-lagged panel analysis. *Journal of Adolescence*, 73, 36–41.

<https://doi.org/10.1016/j.adolescence.2019.03.008>

van Ouytsel, J., Punyanunt-Carter, N. M., Walrave, M., & Ponnet, K. (2020). Sexting within young adults' dating and romantic relationships. *Current Opinion in Psychology*, 36, 55-59. <https://doi.org/10.1016/j.copsyc.2020.04.007>

van Ouytsel, J., Van Gool, E., Ponnet, K., & Walrave, M. (2014). Brief report: The association between adolescents' characteristics and engagement in sexting.

*Journal of Adolescence*, 37(8), 1387-1391.

<https://doi.org/10.1016/j.adolescence.2014.10.004>

van Ouytsel, J., Walrave, M., Lu, Y., Temple, J. R., & Ponnet, K. (2018). The associations between substance use, sexual behavior, deviant behaviors and adolescents' engagement in sexting: Does relationship context matter? *Journal of Youth and Adolescence*, 47(11), 2353–2370. <https://doi.org/10.1007/s10964-018-0903-9>

van Ouytsel, J., Walrave, M., Ponnet, K., & Heirman, W. (2014). The association between adolescent sexting, psychosocial difficulties, and risk behavior. *The Journal of School Nursing*, 31(1), 54-69. <https://doi.org/10.1177/1059840514541964>

Vanden Abeele, M., Campbell, S. W., Eggermont, S., & Roe, K. (2014). Sexting, Mobile Porn Use, and Peer Group Dynamics: Boys' and Girls' Self-Perceived Popularity, Need for Popularity, and Perceived Peer Pressure. *Media Psychology*, 17(1), 6–33. <https://doi.org/10.1080/15213269.2013.801725>

- Vargo, D., Zhu, L., Benwell, B., & Yan, Z. (2020). Digital technology use during COVID - 19 pandemic: A rapid review. *Human Behavior and Emerging Technologies*, 3(1), 13-24. <https://doi.org/10.1002/hbe2.242>
- Vehovar, V., Toepoel, V., & Steinmetz, S. (2017). Non-probability sampling. *The SAGE Handbook of Survey Methodology*, 329-345. <https://doi.org/10.4135/9781473957893.n22>
- Walrave, M., Heirman, W., & Hallam, L. (2014). Under pressure to sext? Applying the theory of planned behaviour to adolescent sexting. *Behaviour & Information Technology*, 33(1), 86–98. <https://doi.org/10.1080/0144929x.2013.837099>
- Walrave, M., Ponnet, K., Van Ouytsel, J., Van Gool, E., Heirman, W., & Verbeek, A. (2015). Whether or not to engage in sexting: Explaining adolescent sexting behaviour by applying the prototype willingness model. *Telematics and Informatics*, 32(4), 796-808. <https://doi.org/10.1016/j.tele.2015.03.008>
- Wellings, K., Collumbien, M., Slaymaker, E., Singh, S., Hodges, Z., Patel, D., & Bajos, N. (2006). Sexual behaviour in context: a global perspective. *The Lancet*, 368(9548), 1706–1728. [https://doi.org/10.1016/s0140-6736\(06\)69479-8](https://doi.org/10.1016/s0140-6736(06)69479-8)
- Winkelman, S. B., Smith, K. V., Brinkley, J., & Knox, D. (2014). Sexting on the college campus. *Electronic Journal of Human Sexuality*, 17. <https://link.gale.com/apps/doc/A419762808/AONE?u=anon~fb6f2f51&sid=googleScholar&xid=47e27017>
- Wood, D., Crapnell, T., Lau, L., Bennett, A., Lotstein, D., Ferris, M., & Kuo, A. (2017). Emerging Adulthood as a Critical Stage in the Life Course. *Handbook of Life*

*Course Health Development*, 123–143. [https://doi.org/10.1007/978-3-319-47143-3\\_7](https://doi.org/10.1007/978-3-319-47143-3_7)

- Wood, M., Barter, C., Stanley, N., Aghtaie, N., & Larkins, C. (2015). Images across Europe: The sending and receiving of sexual images and associations with interpersonal violence in young people's relationships. *Children and Youth Services Review*, 59, 149-160. <https://doi.org/10.1016/j.childyouth.2015.11.005>
- Wu, C., & Yao, G. (2008). Psychometric analysis of the short-form UCLA Loneliness Scale (ULS-8) in Taiwanese undergraduate students. *Personality and Individual Differences*, 44(8), 1762–1771. <https://doi.org/10.1016/j.paid.2008.02.003>
- Xu, S., Qiu, D., Hahne, J., Zhao, M., & Hu, M. (2018). Psychometric properties of the short-form UCLA Loneliness Scale (ULS-8) among Chinese adolescents. *Medicine*, 97(38), e12373. <https://doi.org/10.1097/md.00000000000012373>
- Ybarra, M. L., & Mitchell, K. J. (2014). “Sexting” and its relation to sexual activity and sexual risk behavior in a national survey of adolescents. *Journal of Adolescent Health*, 55(6), 757–764. <https://doi.org/10.1016/j.jadohealth.2014.07.012>
- Yeung, T. H., Horyniak, D. R., Vella, A. M., Hellard, M. E., & Lim, M. S. (2014). Prevalence, correlates and attitudes towards sexting among young people in Melbourne, Australia. *Sexual Health*, 11(4), 332. <https://doi.org/10.1071/sh14032>
- Yu, K., & Zheng, Y. (2020). Sexting and emotional reactions to hooking up among Chinese college students: Moderated mediation effects of loneliness and number of hookup partners. *Personality and Individual Differences*, 167, 110252. <https://doi.org/10.1016/j.paid.2020.110252>

Zattoni, F., Gül, M., Soligo, M., Morlacco, A., Motterle, G., Collavino, J., Barneschi, A. C., Moschini, M., & Moro, F. D. (2020). The impact of COVID-19 pandemic on pornography habits: A global analysis of Google trends. *International Journal of Impotence Research*. <https://doi.org/10.1038/s41443-020-00380-w>

Zolkepli, F. (2021). *Teenage girl blackmailed by male acquaintance using nude photos*. The Star. <https://www.thestar.com.my/news/nation/2021/04/10/teenage-girl-blackmailed-by-male-acquaintance-using-nude-photos>

Appendix A  
Questionnaire

**Determinants of Sexting Behavior Among Emerging Adults in Malaysia**

**Q1 Participant Information Sheet**

**Introduction**

We would like to invite you to participate in this research project, which aims to examine the “Determinants of sexting behaviour among emerging adults in Malaysia”. Your participation in this survey is highly appreciated.

**Why am I doing the project?**

This is a project conducted by undergraduates from Universiti Tunku Abdul Rahman. It is hoped that the project could provide useful information for practitioner and policy maker to draw effective program to deal with sexting behaviour.

**What will you have to do if you agree to take part? Will your participation in the project remain confidential?**

If you agree to take part, your name will not be recorded on the questionnaires and the information will not be disclosed to other parties. Your responses to the questions will be used for the purpose of this project only and you can be assured that if you take part in the project you will remain anonymous.

**What are the advantages of taking part?**

You may find the project interesting and enjoy answering questions about the things regarding sexting behaviour. Once the study is finished it could provide information about the predictors of sexting behaviour, which is useful in providing effective measures to deal with the negative impact of sexting behaviour.

**Are there any disadvantages of taking part?**

It could be that you are not comfortable talking about your participation in the behaviour of sexting. Do you have to take part in the study? No, your participation in this project is entirely voluntary. You are not obliged to take part, you have been approached by using purposive approach with a view that you might be eligible in taking part but this does not mean you have to. If you do not wish to take part, you do not have to give a reason. Similarly, if you do agree to participate you are free to withdraw at any time during the project if you change your mind.

## Q2 Personal Data Protection Statement

*In accordance with Personal Data Protection Act 2010 (“PDPA”) which came into force on 15 November 2013, Universiti Tunku Abdul Rahman (“UTAR”) is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.*

### **Notice:**

1. The purposes for which your personal data may be used are inclusive but not limited to:
  - For assessment of any application to UTAR
  - For processing any benefits and services
  - For communication purposes
  - For advertorial and news
  - For general administration and record purposes
  - For enhancing the value of education
  - For educational and related purposes consequential to UTAR
  - For the purpose of our corporate governance
  - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan
  
2. Your personal data may be transferred and/or disclosed to third party including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.
  
3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.
  
4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

**Q3 Consent Form for Research Participation and Personal Data Protection**

Title of Project: Determinants of Sexting Behaviour Among Emerging Adults in Malaysia

**NOTE:** This consent form will remain with the UTAR researchers for their records. I understand I have been asked to take part in the research project specified above by a group of researchers from UTAR for the purpose of their research project. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records.

**I understand that:**

	Yes (1)	No (2)
I will be asked to complete a questionnaire about determinants of sexting behavior among emerging adults in Malaysia. (1)	<input type="radio"/>	<input type="radio"/>
My participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way. (2)	<input type="radio"/>	<input type="radio"/>
I may ask at any time for my data to be withdrawn from the project. (3)	<input type="radio"/>	<input type="radio"/>
No information I have provided that could lead to the identification of any other individual will be disclosed in any reports on the project, or to any other party. (4)	<input type="radio"/>	<input type="radio"/>
I will remain anonymous at all times in any reports or publications from the project. (5)	<input type="radio"/>	<input type="radio"/>
It is my sole responsibility to look after my own safety for the above project. In the event of any misfortune or accidental injury involving me, whether or not due solely to personal negligence or otherwise, I hereby declare that UTAR shall not be held responsible. (6)	<input type="radio"/>	<input type="radio"/>



Q4 By submitting this form, I hereby authorise and consent to UTAR processing (including disclosing) my personal data and any updates of my information, for the purposes and/or for any other purposes related to the purpose.

I acknowledge that if I do not consent or subsequently withdraw my consent to the processing and disclosure of my personal data, UTAR will not be able to fulfil their obligations or to contact me or to assist me in respect of the purposes and/or for any other purposes related to the purpose.

Please feel free to contact any of the researchers listed below if you have any inquiries:

Ms Lee Li Teng (janicelee@1utar.my)

Ms Ong Pei Ling (ongpeiling@1utar.my)

Ms Wong Yoke Ting (wongyoketing0627@1utar.my)

**Acknowledgment of Personal Data Protection Notice**

- I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice. (1)
- I disagree, my personal data will not be processed. (2)

Q5 Age

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Q6 Gender

- Male (1)
- Female (2)

Q7 Sexual preference

- I am attracted to opposite sex (1)
- I am attracted to same sex (2)

Q8 Race

- Malay (1)
  - Chinese (2)
  - Indian (3)
  - Others: (Please specify) (4)
- 

Q9 Nationality

- Malaysian (1)
- Non-Malaysian (2)

## Q10 Employment status

Employed: (Please state your occupation) (1)

\_\_\_\_\_

Unemployed (2)

Students (3)

## Q11 Current relationship status

Single (1)

In a relationship (2)

Married (3)

Others: (4) \_\_\_\_\_

## Q12 Do you have any experiences in sexting?

*(SEXTING: sent/ received/ forwarded sexually contents such as text messages, images or videos)*

Yes (1)

No (2)

## Q13

Please respond to the following questions regarding sexting behaviours based on how it has been defined below.

Please indicate **How Often** each of the statement below is descriptive of you.

**NOTE:** We define SEXTING as: sending, receiving and sharing sexually suggestive or provocative messages and/or photographs, primarily between mobile phones (although some

of the questions will ask about other media forms as well, such as Facebook, Snapchat, Instagram).

	Never (1)	Rarely (A few times) (2)	Occasionally (2-3 months) (3)	Often (2-3 weeks) (4)	Frequently (daily) (5)
How often have you <b>"received"</b> suggestive or sexually charged <b>text</b> messages? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often have you <b>"received"</b> provocative or suggestive <b>pictures</b> by text message? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often have you responded to provocative or suggestive <b>text or picture</b> messages you <b>"received"</b> ? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often have you <b>"received"</b> provocative suggestive pictures or messages over the <b>internet</b> (i.e. Facebook, Snapchat, Instagram)? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often have you **"sent"** suggestive or sexually charged **text** messages? (5)

How often have you **"sent"** provocative or suggestive **pictures** by text messages? (6)

How often has someone responded to a suggestive or sexually charged **text or picture** message you **"sent"**? (7)

How often have you **"sent"** provocative or suggestive pictures or messages over the **internet** (i.e. Facebook, Snapchat, Instagram)? (8)

How often have you publicly "**posted**" suggestive or provocative pictures on **internet** (i.e. Facebook, Snapchat, Instagram)?  
(9)

Q14 How many people have you **SENT/ FORWARDED/ SHARED/ RECEIVED** provocative pictures or texts to/with/from?

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Q15 On average, I usually **SEND/ RECEIVE/ SHARE/ FORWARD** sexts with (You are allowed to select more than one answer.)

**SEXTS:** *sexually contents such as text messages, images or videos*

- I don't sext (1)
- Someone I barely know (2)
- Friends of casual acquaintances who I am attracted to (3)
- Someone I am dating (4)
- Someone I am in a committed relationship with (i.e., boyfriend/girlfriend) (5)

Q16

Please indicate **How Often** each of the statement below is descriptive of you.

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)
I lack companionship. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no one I can turn to. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am unhappy being so withdrawn. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel left out. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel isolation from others. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People are around me but not with me. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am an outgoing person. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can find companionship when I want it. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q17

Please indicate how strongly you **Disagree or Agree** with each statement.

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
I expect to have sex with my partner. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to have sex with my partner. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to have sex with my partner. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to have sex to see what it is like. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would have sex now if I could find a partner who would do it with me. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18

Please indicate how strongly you **Disagree or Agree** with each statement.

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
I have done things to make me more popular, even when it meant doing something I would not usually do. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have neglected some friends because of what other people might think. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times, I've ignored some people in order to be more popular with others. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd do almost anything to avoid being seen as a "loser". (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's important that people think I'm popular. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times, I've gone out with people, just because they were popular. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I've bought things, because they were the "in" things to have. (7)

At times, I've changed the way I dress in order to be more popular. (8)

I've been friends with some people, just because others liked them. (9)

I've gone to parties, just to be part of the crowd. (10)

I often do things just to be popular with people at school. (11)

At times, I've hung out with some people, so others wouldn't think I was unpopular. (12)

Q19

Please indicate **How Often** each of the statement below is descriptive of you.

	Almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Almost always (5)
How often do your friends push you to do things that you don't want to do? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do your friends try to get you to do things that you don't like? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do your friends pressure you to do the things they want? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Appendix B

## Ethical Approval for Research Project


**UNIVERSITI TUNKU ABDUL RAHMAN**

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

Re: U/SERC/282/2021

8 December 2021

Dr Pung Pit Wan  
 Head, Department of Psychology and Counselling  
 Faculty of Arts and Social Science  
 Universiti Tunku Abdul Rahman  
 Jalan Universiti, Bandar Baru Barat  
 31900 Kampar, Perak.

Dear Dr Pung,

**Ethical Approval For Research Project/Protocol**

We refer to the application for ethical approval for your students' research projects from Bachelor of Social Science (Hons) Psychology programme enrolled in course UAPZ3013/UAPZ3023. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Perceived Stress, Self-control, and Subjective Well-being as Predictors in Predicting Social Media Addiction Among Young Adults During the Covid-19 Pandemic in Malaysia	1. Chiam Kok Yi 2. Chow Jing Keat 3. Lee Jiao Hao	Dr Pung Pit Wan	8 December 2021 - 7 December 2022
2.	Predicting Roles of Perceived Social Support and Perceived Academic Stress on Internet Addiction Among Undergraduate Students in Malaysia	1. Chan Yieng Ming 2. Ooi Kyxin 3. Loi Ting Sian		
3.	Attitudes toward Singlehood, Negative Stereotyping of Single Persons, and Perceived Control as Determinants of the Intention to be Single Among Young Adults in Malaysia	1. Joanne Chong Hui Qi 2. Leong Wen Sam 3. Leow Rou yi	Dr Tan Chee Seng	
4.	The Effect of Career Self-Efficacy, Career Outcome Expectations, And Future Career Anxiety on Final Undergraduate Year Last Semester Students' Career Choice	1. Tan Za Sen 2. Lee Quan Xuan 3. Viven Anak Thomas		
5.	The Relationship Between Sense of Coherence, Coping Strategies and Suicidal Ideation Among Youths in Malaysia	1. Nur Imanina Amani Binti Mustakim 2. Reshmika a/p Elangovan 3. Shobhanah a/p Ramesh	Dr Siah Poh Chua	
6.	Non-Attachment and Sense of Coherence: Their Relationships with Happiness	1. Gan Wei Xuan 2. Kashvini Muthu Kumar 3. Stephanie Wong Zi Shan		
7.	Grit, Social Relationship and Academic Performance: Their Relationships Among Undergraduates in Malaysia	1. Firozepall Singh 2. Arjan Singh a/l Ranjit Singh		
8.	Flow Experience, Stress, and Mindfulness as Predictors of Internet Addiction Among University Students in Malaysia	1. Avinaash a/l Thiruselvam 2. Lim Shu Jing	Ms T'ng Soo Ting	
9.	The Mediating Role of Emotion Regulation in the Relationship Between Negative Emotion, Positive Emotion, and Emotional Eating Among Young Adults in Malaysia	1. Chong Xuan Ni 2. Heng Wee Keat 3. Ruan, Yu		

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Website: www.utar.edu.my



No	Research Title	Student's Name	Supervisor's Name	Approval Validity
10.	Determinants of Sexting Behavior Among Emerging Adults in Malaysia	1. Lee Li Teng 2. Ong Pei Ling 3. Wong Yoke Ting	Mr Tan Soon Aun	8 December 2021 - 7 December 2022
11.	The Association Between Compulsive Social Media Use and Psychological Well-being Among Young Adults in Malaysia: Social Media Fatigue as a Mediator	1. Foong Chee Ee 2. Lau Yau Chee 3. Sarvinna a/p Vasuthevan		

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,



**Professor Ts Dr Faidz bin Abd Rahman**

Chairman

UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Arts and Social Science  
Director, Institute of Postgraduate Studies and Research

## Appendix C

## Turnitin Originality Report

FYP 2\_Wong Yoke Ting

## ORIGINALITY REPORT

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SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

## PRIMARY SOURCES

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<b>7</b>	<b>Mariek M. P. Vanden Abeele, Katrien Van Cleemput, Heidi Vandebosch. "Peer influence as a predictor of producing and distributing hurtful images of peers and teachers among Flemish adolescents", Journal of Children and Media, 2016</b> Publication	<b>&lt;1%</b>



8	<a href="http://link.springer.com">link.springer.com</a> Internet Source	<1 %
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12	<a href="http://www.frontiersin.org">www.frontiersin.org</a> Internet Source	<1 %
13	Joris Van Ouytsel, Koen Ponnet, Michel Walrave, Leen d'Haenens. "Adolescent sexting from a social learning perspective", <i>Telematics and Informatics</i> , 2017 Publication	<1 %
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15	Submitted to Palmerston North Girls' High School Student Paper	<1 %
16	David Wilson, Jackie Cutts, Isabella Lees, Sibongile Mapungwana, Levison Maunganidze. "Psychometric Properties of the Revised UCLA Loneliness Scale and Two Short-Form measures of Loneliness in	<1 %

Zimbabwe", Journal of Personality  
Assessment, 1992

Publication

- 
- |           |  |      |
|-----------|--|------|
| <b>17</b> | Susanne E. Baumgartner, Sindy R. Sumter, Jochen Peter, Patti M. Valkenburg. "Sexual self-presentation on social network sites: Who does it and how is it perceived?", Computers in Human Behavior, 2015                                  | <1 % |
| <hr/>     |  |      |
| <b>18</b> | Submitted to Arizona State University  | <1 % |
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| <b>19</b> | Choon Hong Tan, Ah Choo Koo, Hawa Rahmat, Wei Fern Siew, Alexius Weng Onn Cheang, Elyna Amir Sharji. "A quantitative study exploring the acceptance of the eHealth model for mental wellness among digital workers", F1000Research, 2022 | <1 % |
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30	Joris Van Ouytsel, Michel Walrave, Koen Ponnet, Wannes Heirman. "The Association Between Adolescent Sexting, Psychosocial	<1 %

Difficulties, and Risk Behavior", The Journal of  
School Nursing, 2014

Publication

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- 31 Mariek Vanden Abeele, Scott W. Campbell, Steven Eggermont, Keith Roe. "Sexting, Mobile Porn Use, and Peer Group Dynamics: Boys' and Girls' Self-Perceived Popularity, Need for Popularity, and Perceived Peer Pressure", Media Psychology, 2014 <1%

Publication

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- 32 Van Ouytsel, J., M. Walrave, K. Ponnet, and W. Heirman. "The Association Between Adolescent Sexting, Psychosocial Difficulties, and Risk Behavior: Integrative Review", The Journal of School Nursing, 2014. <1%

Publication

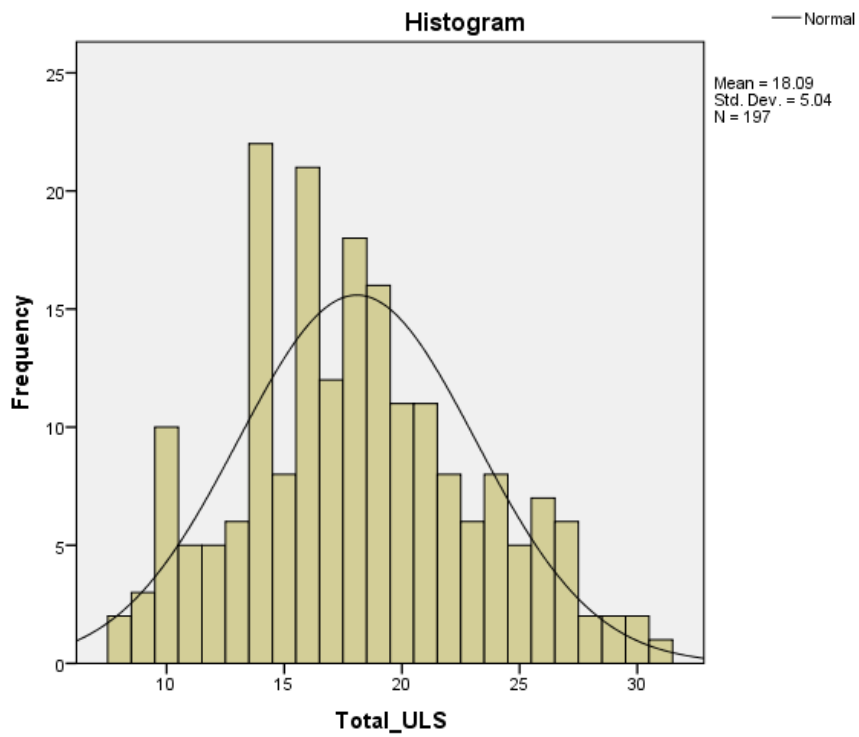
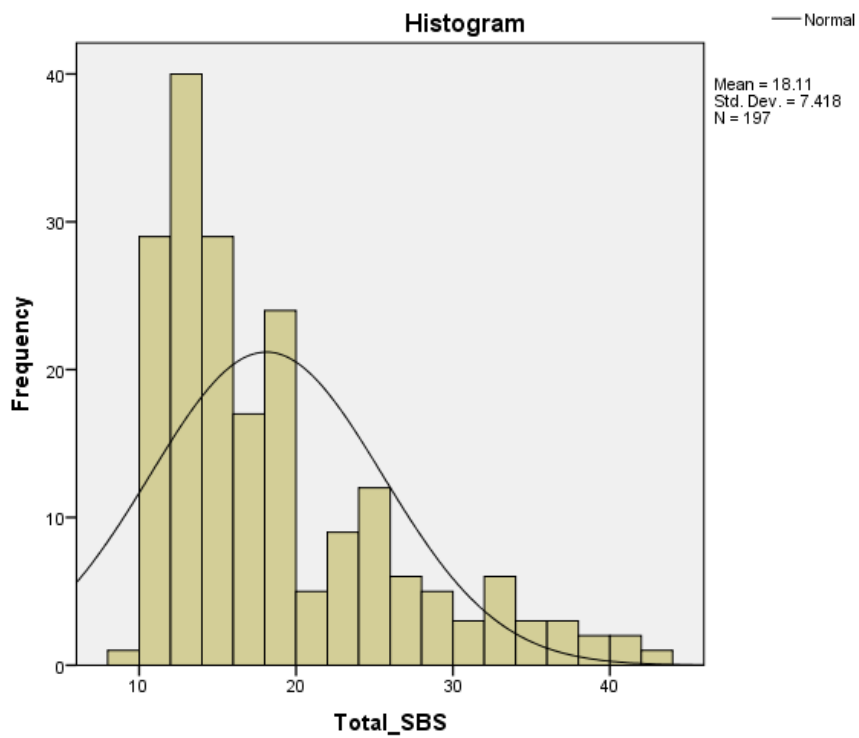
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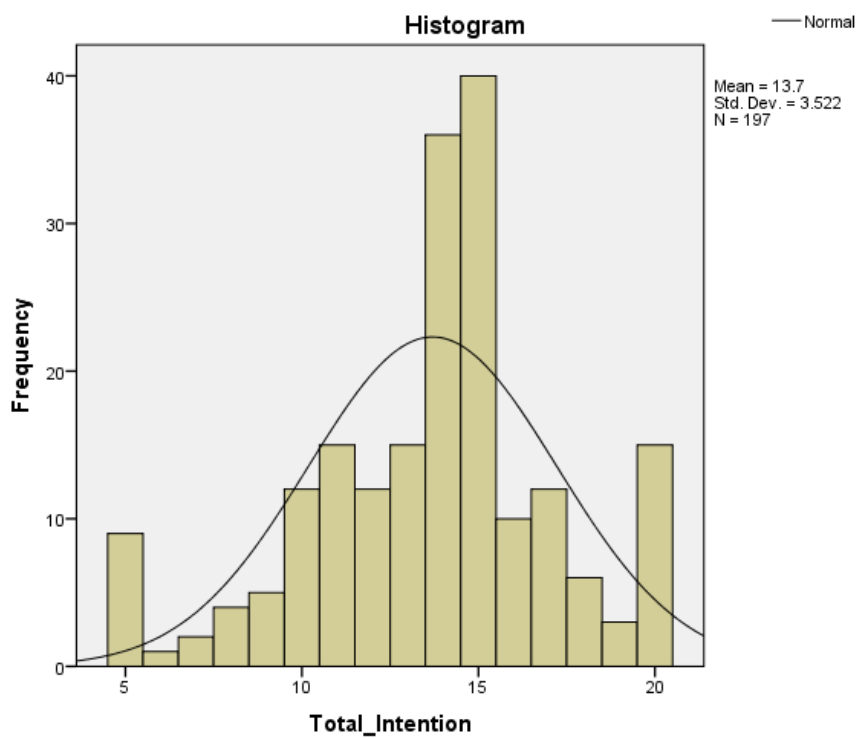
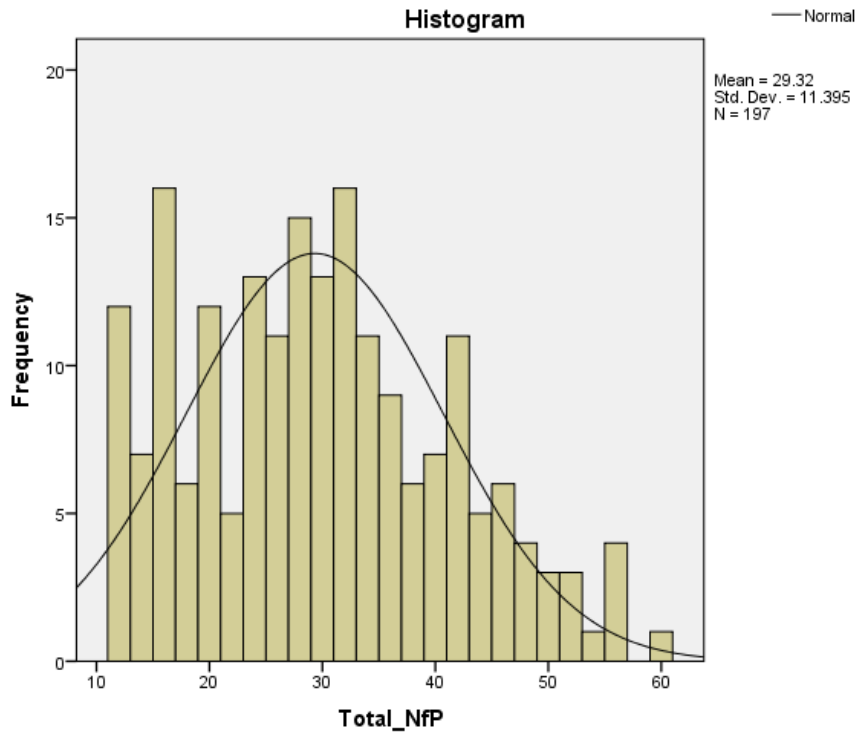
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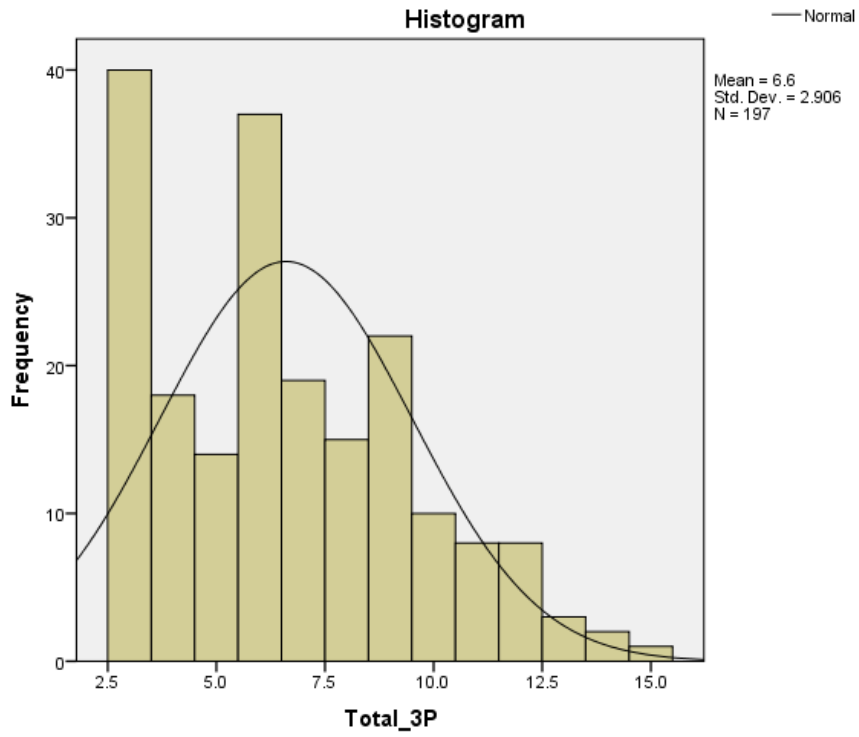
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Appendix D

Histogram for Each Variable

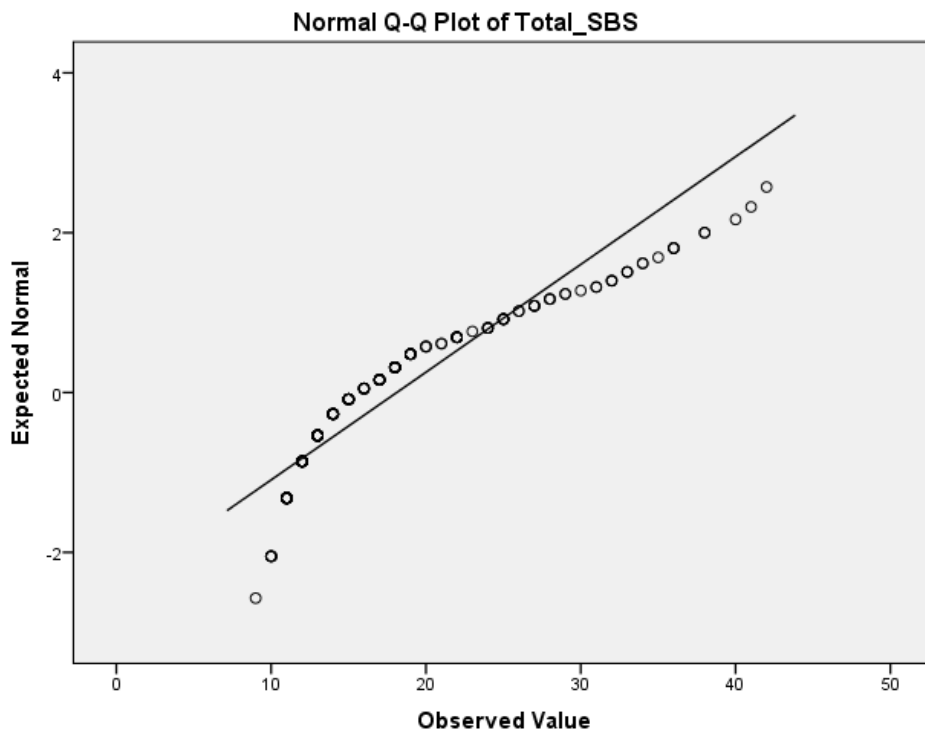


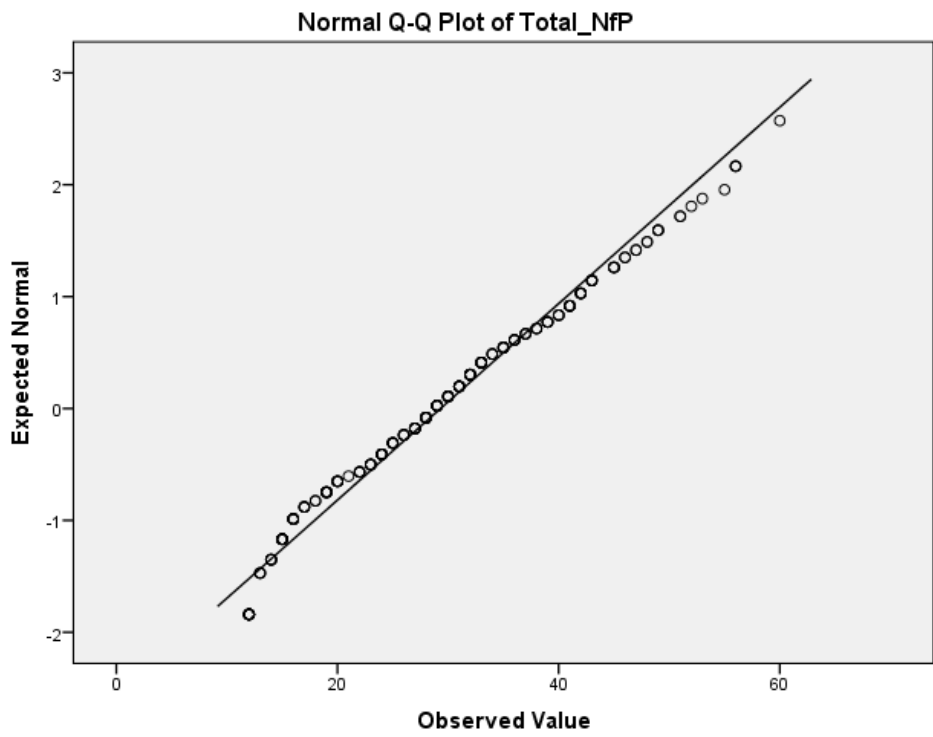
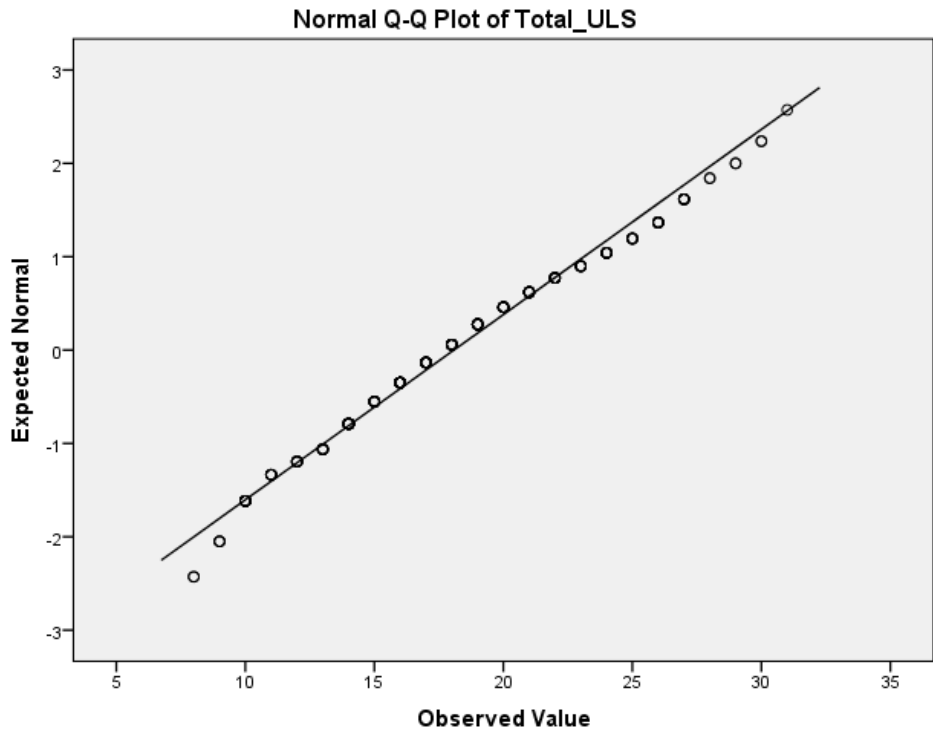




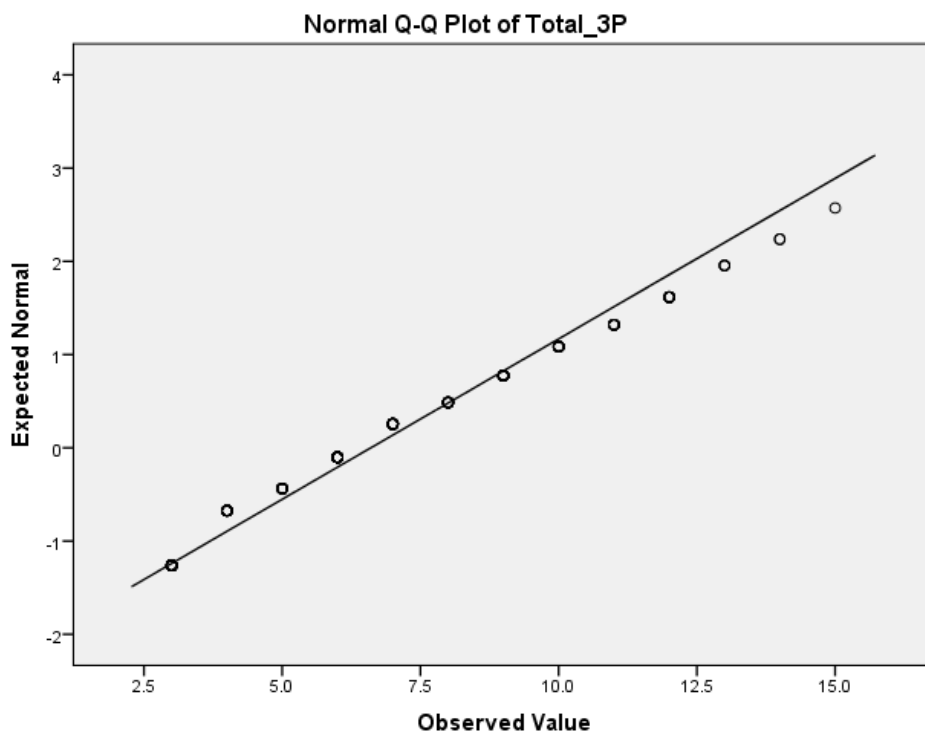
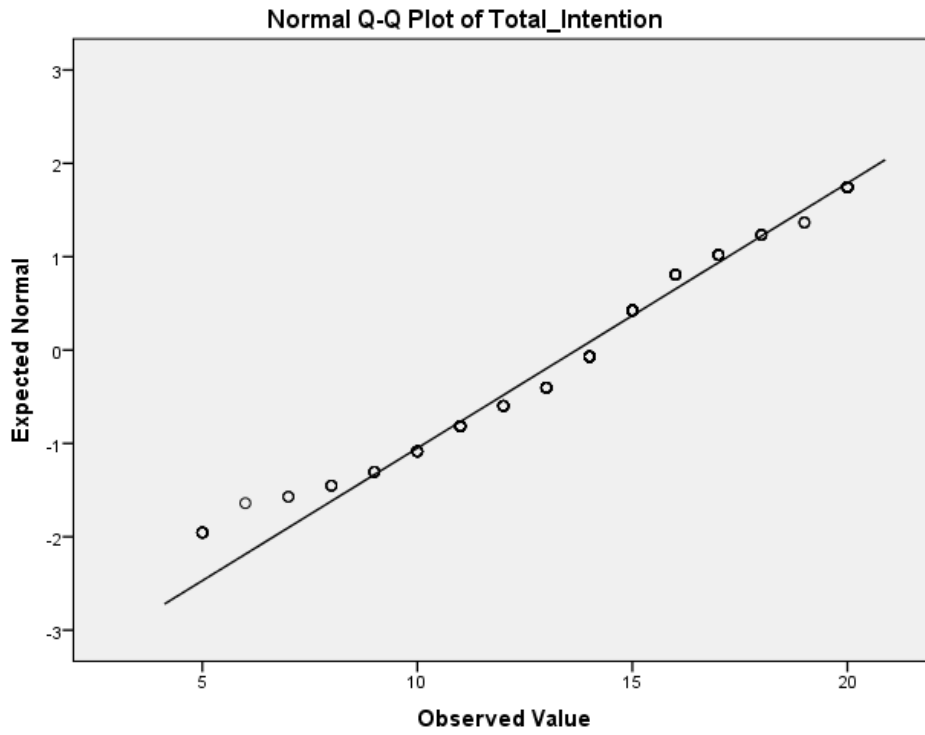
Appendix E

P-P plots for each variable









**UNIVERSITI TUNKU ABDUL RAHMAN  
FACULTY OF ARTS AND SOCIAL SCIENCE  
DEPARTMENT OF PSYCHOLOGY AND COUNSELLING**

**UAPZ 3023 Final Year Project II**

**Quantitative Research Project Evaluation Form**

**TURNITIN:** *'In assessing this work you are agreeing that it has been submitted to the University-recognised originality checking service which is Turnitin. The report generated by Turnitin is used as evidence to show that the students' final report contains the similarity level below 20%.'*

Project Title: Determinants of Sexting Behaviour Among Emerging Adults in Malaysia	
Supervisor: Mr. Tan Soon Aun	
Student's Name:	Student's ID
1. Lee Li Teng	1. 18AAB01731
2. Ong Pei Ling	2. 18AAB02570
3. Wong Yoke Ting	3. 18AAB03390

<p><b>INSTRUCTIONS:</b> Please score each descriptor based on the scale provided below:</p> <ol style="list-style-type: none"> <li>1. Please award 0 mark for no attempt.</li> <li>2. For criteria 7: Please retrieve the marks from "Oral Presentation Evaluation Form".</li> </ol>
--

<b>1. ABSTRACT (5%)</b>	<b>Max Score</b>	<b>Score</b>
a. State the main hypotheses/research objectives.	5%	
b. Describe the methodology: <ul style="list-style-type: none"> <li>• Research design</li> <li>• Sampling method</li> <li>• Sample size</li> <li>• Location of study</li> <li>• Instruments/apparatus/outcome measures</li> <li>• Data gathering procedures</li> </ul>	5%	
c. Describe the characteristics of participants.	5%	
d. Highlight the outcomes of the study.	5%	
e. Conclusions, implications, and applications.	5%	
<b>Sum</b>	25%	/25%
<b>Subtotal (Sum/5)</b>	5%	/5%
Remark:		
<b>2. METHODOLOGY (25%)</b>	<b>Max Score</b>	<b>Score</b>
a. Research design/framework: <ul style="list-style-type: none"> <li>• For experiment, report experimental manipulation, participant flow, treatment fidelity, baseline data, adverse events and side effects, assignment method and implementation, masking. (*if applicable with the study design)</li> <li>• For non-experiment, describe the design of the study and data used.</li> </ul>	5%	
b. Sampling procedures: <ul style="list-style-type: none"> <li>• Justification of sampling method/technique used.</li> <li>• Description of location of study.</li> <li>• Procedures of ethical clearance approval. (Provide reference number of approval letter)</li> </ul>	5%	
c. Sample size, power, and precision: <ul style="list-style-type: none"> <li>• Justification of sample size.</li> <li>• Achieved actual sample size and response rate.</li> <li>• Power analysis or other methods (if applicable).</li> </ul>	5%	
d. Clear explanation of data collection procedures: <ul style="list-style-type: none"> <li>• Inclusion and exclusion criteria</li> <li>• Procedures of obtaining consent</li> <li>• Description of data collection procedures</li> <li>• Provide dates/duration of recruitment repeated measures or follow-up.</li> <li>• Agreement and payment (if any)</li> </ul>	5%	
e. Explanation of instruments/questionnaire used: <ul style="list-style-type: none"> <li>• Description of instruments</li> </ul>	5%	

<ul style="list-style-type: none"> <li>• Scoring system</li> <li>• Meaning of scores</li> <li>• Reliability and validity</li> </ul>		
<b>Subtotal</b>	25%	/25%
Remark:		
<b>3. RESULTS (20%)</b>	<b>Max Score</b>	<b>Score</b>
a. Descriptive statistics: <ul style="list-style-type: none"> <li>• Demographic characteristics</li> <li>• Topic-specific characteristics</li> </ul>	5%	
b. Data diagnostic and missing data: <ul style="list-style-type: none"> <li>• Frequency and percentages of missing data. (if applicable)</li> <li>• Methods employed for addressing missing data. (if applicable)</li> <li>• Criteria for post data-collection exclusion of participants.</li> <li>• Criteria for imputation of missing data.</li> <li>• Defining and processing of statistical outliers.</li> <li>• Analyses of data distributions.</li> <li>• Data transformation (if applicable).</li> </ul>	5%	
c. Appropriate data analysis for each hypothesis or research objective.	5%	
d. Accurate interpretation of statistical analyses: <ul style="list-style-type: none"> <li>• Accurate report and interpretation of confidence intervals or statistical significance.</li> <li>• Report of <math>p</math> values and minimally sufficient sets of statistics (e.g., <math>dfs</math>, <math>MS</math>, <math>MS</math> error).</li> <li>• Accurate report and interpretation of effect sizes.</li> <li>• Report any problems with statistical assumptions.</li> </ul>	5%	
<b>Subtotal</b>	20%	/20%
Remark:		
<b>4. DISCUSSION AND CONCLUSION (20%)</b>	<b>Max Score</b>	<b>Score</b>
a. Constructive discussion of findings: <ul style="list-style-type: none"> <li>• Provide statement of support or nonsupport for all hypotheses.</li> <li>• Analyze similar and/or dissimilar results.</li> <li>• Rational justifications for statistical results.</li> </ul>	8%	

b. Implication of the study: • Theoretical implication for future research. • Practical implication for programs and policies.	4%		
c. Relevant limitations of the study.	4%		
d. Recommendations for future research.	4%		
<b>Subtotal</b>	20%		/20%
Remark:			
<b>5. LANGUAGE AND ORGANIZATION (5%)</b>	<b>Max Score</b>	<b>Score</b>	
a. Language proficiency	3%		
b. Content organization	1%		
c. Complete documentation (e.g., action plan, originality report)	1%		
<b>Subtotal</b>	5%		/5%
Remark:			
<b>6. APA STYLE AND REFERENCING (5%)</b>	<b>Max Score</b>	<b>Score</b>	
a. 7 <sup>th</sup> Edition APA Style	5%		/5%
Remark:			
<b>*ORAL PRESENTATION (20%)</b>	<b>Score</b>		
	Student 1	Student 2	Student 3
<b>Subtotal</b>	/20%	/20%	/20%
Remark:			
<b>PENALTY</b>	<b>Max Score</b>	<b>Score</b>	
Maximum of 10 marks for LATE SUBMISSION (within 24hours), or POOR CONSULTATION ATTENDANCE with supervisor.  *Late submission after 24hours will not be graded	10%		
	Student 1	Student 2	Student 3
<b>**FINAL MARK/TOTAL</b>	/100%	/100%	/100%

**\*\*\*Overall Comments:**

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**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Notes:**

1. **Subtotal:** The sum of scores for each assessment criterion
2. **FINAL MARK/TOTAL:** The summation of all subtotal score
3. Plagiarism is **NOT ACCEPTABLE**. Parameters of originality required and limits approved by UTAR are as follows:
  - (i) **Overall similarity index is 20% or below**, and
  - (ii) **Matching of individual sources listed must be less than 3%** each, and
  - (iii) Matching texts in continuous block must **not exceed 8 words**

Note: Parameters (i) – (ii) shall exclude quotes, references and text matches which are less than 8 words.

Any works violate the above originality requirements will NOT be accepted. Students have to redo the report and meet the requirements in **SEVEN (7)** days.

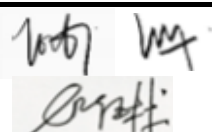

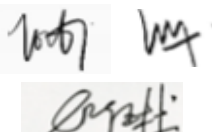

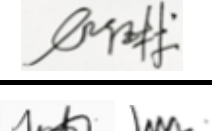

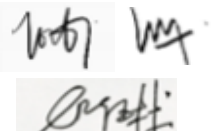

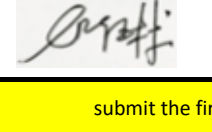

\*The marks of “Oral Presentation” are to be retrieved from “**Oral Presentation Evaluation Form**”.

\*\*It is compulsory for the supervisor/examiner to give the overall comments for the research projects with A- and above or F grading.

**Action Plan of UAPZ 3023 (group-based)Final Year Project II for Jan & May trimester**

Supervisee's Name: Lee Li Teng, Ong Pei Ling, Wong Yoke Ting

Supervisor's Name: Mr. Tan Soon Aun

Task Description	Duration	Date/Time	Supervisee's Signature	Supervisor's Signature	Supervisor's Remarks	Next Appointment Date/Time
Methodology, Data Collection & Data Analysis	W1-W2	4/1/2022, 1.30 pm				19/2/2022, 2.00 pm
Finding & Analysis	W3-W6	19/2/2022, 2.00 pm				7/3/2022, 2.00 pm
Discuss Findings & Analysis with Supervisor		7/3/2022, 2.00 pm				16/3/2022, 2.30 pm
Amending Findings & Analysis						
Discussion & Conclusion	W7-W9	16/3/2022, 2.30 pm				23/3/2022, 2.00pm
Discuss Discussion & Conclusion with Supervisor		23/3/2022, 2.00 pm				
Amending Discussion & Conclusion						
Submission of first draft*	Monday of Week 10	submit the first draft to Turnitin.com to check similarity rate				
Amendment	W10					
Submission of final FYP (FYP I + FYP II)*	Monday of W11	final submission to supervisor				
Oral Presentation		Oral Presentation Schedule will be released and your supervisor will inform you				

- Notes:**
1. The listed duration is for reference only, supervisors can adjust the period according to the topics and content of the projects.
  2. \*Deadline for submission can not be changed, one mark will be deducted per day for late submission.
  3. Supervisees are to take the active role to make appointments with their supervisors.
  4. Both supervisors and supervisees should keep a copy of this record. 5. This record is to be submitted together with the submission of the FYP II.

**FACULTY OF ARTS AND SOCIAL SCIENCE**  
**UNIVERSITI TUNKU ABDUL RAHMAN**

Date: 4/4/2022

**SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS**

It is hereby certified that Lee Li Teng (ID No: 18AAB01731)  
has completed this final year project entitled  
“Determinants of Sexting Behavior among Emerging Adults in Malaysia”  
under the supervision of Mr. Tan Soon Aun (Supervisor) from the  
Department of Psychology, Faculty of  
Arts and Social Science

I understand that University will upload softcopy of my final year project in pdf format into UTAR Institutional Repository, which may be made accessible to UTAR community and public.

Yours truly,



Name: Lee Li Teng

*\*Delete whichever not applicable*



**FACULTY OF ARTS AND SOCIAL SCIENCE**  
**UNIVERSITI TUNKU ABDUL RAHMAN**

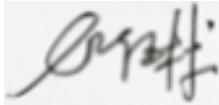
Date: 4/4/2022

**SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS**

It is hereby certified that Ong Pei Ling (ID No: 18AAB02570)  
has completed this final year project entitled  
“Determinants of Sexting Behavior among Emerging Adults in Malaysia”  
under the supervision of Mr. Tan Soon Aun (Supervisor) from the  
Department of Psychology, Faculty of  
Arts and Social Science

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Yours truly,



Name: Ong Pei Ling

*\*Delete whichever not applicable*

**FACULTY OF ARTS AND SOCIAL SCIENCE**  
**UNIVERSITI TUNKU ABDUL RAHMAN**

Date: 4/4/2022

**SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS**

It is hereby certified that Wong Yoke Ting (ID No: 18AAB03390)  
has completed this final year project entitled  
“Determinants of Sexting Behavior among Emerging Adults in Malaysia”  
under the supervision of Mr. Tan Soon Aun (Supervisor) from the  
Department of Psychology, Faculty of  
Arts and Social Science

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Yours truly,



Name: Wong Yoke Ting

*\*Delete whichever not applicable*

<b>Universiti Tunku Abdul Rahman</b>			
<b>Form Title : Supervisor's Comments on Originality Report Generated by Turnitin for Submission of Final Year Project Report (for Undergraduate Programmes)</b>			
Form Number: FM-IAD-005	Rev No.: 0	Effective Date: 01/10/2013	Page No.: 1 of 1



FACULTY OF ARTS AND SOCIAL SCIENCES

<b>Full Name(s) of Candidate(s)</b>	Lee Li Teng, Ong Pei Ling, Wong Yoke Ting
<b>ID Number(s)</b>	18AAB01731, 18AAB02570, 18AAB03390
<b>Programme / Course</b>	Bachelor of Social Science (Honours) Psychology
<b>Title of Final Year Project</b>	Determinants of Sexting Behaviour Among Emerging Adults in Malaysia.

Similarity	Supervisor's Comments (Compulsory if parameters of originality exceeds the limits approved by UTAR)
<b>Overall similarity index: <u>13</u> %</b>  <b>Similarity by source</b> Internet Sources: <u>11</u> % Publications: <u>6</u> % Student Papers: <u>2</u> %	
<b>Number of individual sources listed of more than 3% similarity: <u>1</u></b>	
<b>Parameters of originality required and limits approved by UTAR are as follows:</b> (i) Overall similarity index is 20% and below, and (ii) Matching of individual sources listed must be less than 3% each, and (iii) Matching texts in continuous block must not exceed 8 words <i>Note: Parameters (i) – (ii) shall exclude quotes, bibliography and text matches which are less than 8 words.</i>	

Note Supervisor/Candidate(s) is/are required to provide softcopy of full set of the originality report to Faculty/Institute

*Based on the above results, I hereby declare that I am satisfied with the originality of the Final Year Project Report submitted by my student(s) as named above.*



\_\_\_\_\_  
Signature of Supervisor

Name: Tan Soon Aun

Date: 3 April 2022

\_\_\_\_\_  
Signature of Co-Supervisor

Name: \_\_\_\_\_

Date: \_\_\_\_\_