MATING ORIENTATION AND DARK TRIAD PERSONALITY ON SEXTING

BEHAVIOUR: A COMPARATIVE STUDY BETWEEN MALE AND FEMALE

EMERGING ADULTS IN MALAYSIA

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Mating Orientation and Dark Triad Personality on Sexting Behaviour: A Comparative Study

between Male and Female Emerging Adults in Malaysia

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APPROVAL FORM

This research paper attached here to, entitled "Mating Orientation and Dark Triad Personality on Sexting Behaviour: A Comparative Study between Male and Female Emerging Adults in Malaysia" prepared and submitted by Lee Yih Wen and Tong Kher Sze in partial fulfilment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

_____   Date: 23 April 2024

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ABSTRACT

Sexting behaviour among emerging adults is a prevalent phenomenon with implications for sexual health and interpersonal relationships. This cross-sectional study investigated the relationship between mating orientations (short-term mating orientation, long-term mating orientation and sociosexual behaviour), dark triad personality traits (narcissism, Machiavellianism, and psychopathy), and sexting behaviour with gender as a moderator among emerging adults in Malaysia. Utilizing self-report measures, including the Sexting Behaviour Scale, the Dirty Dozen Dark Triad questionnaire, and the Multidimensional Sociosexual Orientation Inventory, participants (n = 183) provided insights into their sexting behaviour. Results indicated no indication of addiction-level sexting behaviour among the sample. Significant associations were found between mating orientations and sexting behaviour, with long-term mating orientation showing a negative correlation, suggesting conflicting values between sexting and relationship ideals. Psychopathy emerged as a significant predictor of sexting behaviour, indicative of impulsive tendencies among participants engaging in sexting. Surprisingly, narcissism and Machiavellianism did not correlate significantly with sexting behaviour, possibly due to concerns about social consequences and reputational damage. Moreover, gender did not moderate the relationships between any of the mating orientations, dark triad personality traits, and sexting behaviour, suggesting a universal association across genders. These findings offer valuable insights into the unique associations between mating orientations, dark triad personality traits and sexting behaviour across female and male emerging adults in Malaysia, informing the development of targeted interventions and educational initiatives to promote responsible digital communication practices.

Keywords: sexting behaviour, dark triad personality traits, mating orientation, gender as moderator

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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Abbreviations

1. CBT   -   Cognitive Behavioural Therapy

2. CD   -   Cook's Distance

3. CI   -   Confidence Interval

4. CL   -   Centered Leverage

5. CMC   -   Computer-Mediated Communication

6. DTDD   -   Dark Triad Dirty Dozen

7. FFM   -   Five-Factor Model

8. HMLR   -   Hierarchical Multiple Linear Regression

9. MD   -   Mahalanobis Distance

10. MLR   -   Multiple Linear Regression

11. MSOI   -   Multidimensional Sociosexual Orientation Inventory

12. PPMC   -   Pearson's Product-Moment Correlation

13. SBS   -   Sexting Behaviour Scale

14. SERC   -   Scientific and Ethical Review Committee

15. SPSS   -   Statistical Package for the Social Sciences

16. VIF   -   Variance Inflation Factor

CHAPTER 1

Introduction

Background of the Study

Over the past two decades, the gradual and increasingly rapid development of communication technologies had led to various changes in how people, especially emerging adults, communicate, interact, and relate to each other (Confalonieri et al., 2020). The development of technology had given rise to new forms of interaction where people can express their desires, emotions, and fantasies with unprecedented ease, which contributed to "sexting" becoming a significant trend among today's adults. The action of sex and texting has been referred to as the term 'sexting,' implicated how individuals conduct interpersonal and intimate exchanges of communication via online platforms, whether it be through text messages, media and so on (Mori et al., 2020). Sexting was defined as the sharing of sexually suggestive or explicit messages, photographs, or videos (Courtice & Shaughnessy, 2017). With the tap of a screen, individuals can communicate their most intimate thoughts and desires, and as a form of self-expression, it transcended geographical boundaries and allowed experimentation and connection in previously unavailable ways. This behaviour manifested how technology has become intertwined with the evolving landscape of human relationships.

Central to the investigation of sexting behaviour was the concept of mating orientation, which delved into individuals' preferences and strategies when seeking potential partners for short-term and long-term relationships, and sociosexual behaviour (Fajardo et al., 2022). Emerging adults, in their quest for romantic and sexual connections, often exhibited distinct mating orientations that significantly influenced their interpersonal behaviour. These orientations typically included a preference for either short-term, casual sexual encounters or long-term, committed relationships. Additionally, depending on situational and individual factors, individuals might display a combination of both orientations.

Individuals favoured in short-term mating orientations might find sexting an attractive mode of sexual expression that might be aligned with their propensity for casual, non-committal encounters (Bianchi et al., 2019). The anonymous nature of digital communication facilitated brief yet intimate interactions that cater to immediate desires without necessitating long-term commitment. This exploration of the intricate relationship between mating orientation and sexting behaviour played a pivotal role in understanding why emerging adults, with their diverse romantic and sexual preferences, engaged in this digital form of sexual communication.

The dark triad represented a cluster of three overlapping personality dimensions: narcissism, characterized by grandiosity and a need for admiration; Machiavellianism, marked by manipulativeness and a focus on self-interest; and psychopathy, characterized by impulsivity and a lack of empathy (Paulhus & Williams, 2002). These traits were characterized by distinct psychological and behavioural patterns. Narcissism involved excessive self-focus, a need for admiration, and a lack of empathy for others. Machiavellianism encompassed manipulativeness, a tendency to exploit others for personal gain, and a strategic approach to social interactions. Psychopathy is marked by impulsivity, disregard for social norms, and a deficit in empathy and remorse. Individuals with higher scores in these dark triad personality were often described as displaying behaviours that can be manipulative, self-centred, and lacking in empathy (Jonason & Webster, 2010).

The potential connections between dark triad personality and sexting behaviour were of particular interest in this study. The dark triad has been linked to various risky and opportunistic sexual behaviours, which might extend to the realm of sexting. For example, individuals with prominent levels of narcissism might be more likely to engage in sexting as a means of seeking admiration and attention. Similarly, those scoring high on

Machiavellianism might use sexting as a strategic tool for personal gain, and psychopathy might be associated with impulsivity in sexting behaviour (Timmermans et al., 2018).

Gender played a vital role in shaping sexting behaviour (Dir et al., 2013). Research suggested that males and females might have different motivations, patterns, and consequences of sexting (Van Ouytsel et al., 2016). Societal norms, expectations, and gender roles can contribute to these distinctions. For instance, the motivations behind sexting might differ between genders due to varying societal pressures and expectations (Bianchi et al., 2019). Gender might also influence how individuals perceive the risks and benefits of sexting. Thus, this highlighted the need of exploration of gender as a moderator in the unique associations between mating orientation, dark triad personality traits and sexting behaviour .

In conclusion, this study aimed to investigate the complex interplay between mating orientation, dark triad personality traits, and sexting behaviour among emerging adults in Malaysia. The digital age has transformed the landscape of interpersonal relationships, making sexting a noteworthy phenomenon among this demographic.

Problem Statement

In the modernised world, Internet access and use have been part and parcel of society's everyday life, specifically using the Internet as a platform to communicate with others globally. In a previous study conducted by Madigan et al. (2018), it was reported that the mean rate of youths engaging in sexting was 14.8%, receiving sexts by 27.4%, while the potential increase in such trends was visible as time went by. The increase in sexting with age can be explained as the youths approached the stage of growth where they explore themselves and their sexual identities in personal development. Besides, irrefutably, when the youths aged, their access to technological devices would be alleviated, coupled with the more prolific use of the Internet. With that, this would lead to increased sexting in emerging adulthood. Statistics painted a sombre picture of 38.3% of emerging adults that have sent

sexts, while 41.5% received sexts, with the potential of numbers increasing continuously (Mori et al., 2020).

According to Statista (2023), the number of active Malaysian social media users was 78.5% of the country's population, regardless of which social media platform was used. This warranted immediate attention to the issue of sexting behaviour and the outcomes associated to the users. Unfortunately, negative news regarding the use of social media like sexting was often reported. For instance, Teoh (2022) reported that a guy who befriended someone online eventually got tricked into having physical connections, and the event was recorded and posted without his consent, which later alarmed his schoolmates. Another incident was where the police officially reported that there were 367 people, with ages ranging from 20 to 40, that lodged police reports about their experiences with sexting extortion. These sexting extortion schemes were done when the victims sext online, having a steamy and flirtatious video call with the other party. The significant other would then flirt about undressing themselves, but with the condition that the victims would do so as well spontaneously. After the event, the victims would be blackmailed into substantial amounts of money, or else their private media would be leaked and exposed. To aggravate the situation, such incidents were estimated to cost around RM500,000 to RM1 million, a devilish scheme for fraud (Faisal, 2022). Therefore, when comparing the pros and cons of sexting, the cons weighed more than the benefits, emphasising why the authorities concerned ought to investigate the setbacks and remedial measures for sexting.

Emerging adulthood represented the developmental stage of individuals around the age 18 to 29 (Arnett et al., 2014). Existing studies regarding sexting and emerging adults were skewed to the Western findings, which indicated the lack of literature on this topic in local settings. However, despite the substantial amount of research done in a non-local context, past studies have concluded inconsistent results. Computer-Mediated

Communication (CMC) was implemented in society as the prevailing trends of social networks went high (Drouin et al., 2013). With online text messaging being the most preferred option for sexting, CMC played a pivotal role as the key mode for interpersonal communication among young people. However, CMC, in other events, was used for sexting purposes. Hence, this urged the need for further studies regarding the area of emerging adulthood and sexting, where individuals during this phase of development have increased exposure to digital literacy and access, together with the exploration of relationships and sexuality. For example, the use of online dating applications and social media platforms have been vastly available, but the worrisome issue underlined the sharing and exchanging of explicit sexual contents and personal information. This would eventually lead to risky sexual behaviours or even negative backlashes like online sexual victimisation, mental health issues, and so on (Mori et al., 2020). Furthermore, with the increased trend of sexting, this once again urged emphasis on the emerging adulthood population with such behaviours.

Besides, existing studies regarding the relationship between mating orientation and sexting were scarcely found (Ploharz, 2017), nevertheless, this topic of interest among emerging adults in the Malaysian context was also greatly limited. By looking into short-term and long-term mating orientations, an individual's preferences had distinct levels of impact towards sexting behaviour. Although many studies had already investigated this area of interest, there was still insufficient understanding of how such mating strategies were implemented with sexting to adapt to the evolutionary goals of both genders, in terms of reproductive and sexual issues. Past literature was mostly outdated and unsuited to be used for the generalization of studies (Ploharz, 2017). Besides, from the view of social mating orientation, studies have shown inconsistent results regarding the outcomes of sexting. Thus, this reiterated the need to investigate the identified gap to broaden the knowledge in this field of interest.

Dark triad personality has been an exciting topic solitarily, consisting of three specific traits, namely Machiavellianism, psychopathy and narcissism. It has been identified that few studies have looked into the relationship between maladaptive personalities and sexting behaviour, thus brought light to the linkage between dark triad personality and sexting (Sparks et al., 2023). For instance, the general studies done have investigated several sexting behaviours, including risky and experimental sexting. However, these findings were still insufficient to cover the literature gap regarding dark triad personalities and sexting. Furthermore, related literature on this subject was scarce in the local context. As such, this strengthened the need to address the literature gap and empirical study in the local context of Malaysia's emerging adulthood.

Additionally, when gender was considered as a moderator for mating orientation, dark triad personality and sexting behaviour, past findings showed inconsistent results and insufficient database for local settings. Regarding past literature, not all studies considered both genders when examining the relationship between the targeted variables. For example, when the chosen participant for the study was for males only, the results might also be unsuitable for generalization in female counterparts (Fajardo et al., 2022). In addition, the discrepancies in results also emphasized the importance of gender differences to improve the average performance of both genders and to better understand the reasons behind the differences.

Research Questions

1. What is the level of sexting behaviour among emerging adult samples?

2. What are the relationships between mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour), dark triad personality (narcissism, Machiavellianism, and psychopathy) and sexting behaviour among emerging adult samples?

3. Does mating orientation (short-term mating orientation, long-term mating orientation, and sociosexual behaviour) and dark triad personality (narcissism, Machiavellianism, and psychopathy) predict sexting behaviour among emerging adult samples?

4. Does gender moderates the association between mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour), dark triad personality (narcissism, Machiavellianism, and psychopathy) and sexting behaviour among emerging adult samples?

Research Objective

1. To identify the level of sexting behaviour among emerging adult samples.

2. To examine and establish the associations between mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour), dark triad personality traits (narcissism, Machiavellianism, and psychopathy), and sexting behaviour among emerging adult samples.

3. To investigate whether mating orientation (short-term mating orientation, long-term mating orientation, and sociosexual behaviour) and dark triad personality traits (narcissism, Machiavellianism, and psychopathy) can serve as predictors for sexting behaviour among emerging adult samples.

4. To explore whether gender acts as a moderator in the relationships between mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour), dark triad personality traits (narcissism, Machiavellianism, and psychopathy), and sexting behaviour among emerging adult samples.

Hypotheses

H_{1a}: Short-term mating orientation is positively correlated with sexting behaviour.

H_{1b}: Long-term mating orientation is positively correlated with sexting behaviour.

H_{1c}: Sociosexual behaviour is positively correlated with sexting behaviour.

H_{1d}: Narcissism is positively correlated with sexting behaviour.

H_{1e}: Machiavellianism is positively correlated with sexting behaviour.

H_{1f}: Psychopathy is positively correlated with sexting behaviour.

H_2: Mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour) and dark triad personality traits (narcissism, Machiavellianism, and psychopathy) significantly predicted sexting behaviour among emerging adult samples.

H_{3a}: Gender moderates the relationship between short-term mating orientation and sexting behaviour.

H_{3b}: Gender moderates the relationship between long-term mating orientation and sexting behaviour.

H_{3c}: Gender moderates the relationship between sociosexual behaviour and sexting behaviour.

H_{3d}: Gender moderates the relationship between narcissism and sexting behaviour.

H_{3e}: Gender moderates the relationship between Machiavellianism and sexting behaviour.

H_{3f}: Gender moderates the relationship between psychopathy and sexting behaviour.

Significance of Study

Sexting has been a growing yet alarming trend that warranted attention from researchers and other authorities concerned. The present study has brought significance in addressing this underrated social issue, which was the influence of mating orientation, dark triad personality and gender towards sexting behaviour. Undeniably, given the increased use of sexting among emerging adulthoods, it would be beneficial to authorities concerned and scholars in the related field to have a better and in-depth understanding regarding the effects of mating orientation, dark triad personality and gender towards sexting. Not only would this study help in the further contribution of literature in the local context, but also help develop

effective intervention measures. Additionally, since sexting might also inflict ethical, and social problems, namely privacy and confidentiality issues, this study would portray further insights about the potential risks or gains of sexting.

For this study, the targeted population used is emerging adulthood as past findings focused more on adolescents and few studies contributed to the local context regarding the selected topic. For instance, research conducted on sexting and the negative effects associated with it only collected sample data from adolescent samples (Gassó et al., 2019), excluding young adults. However, emerging adulthood ought to be emphasised, as studies have shown that the prevalence rates of sexting increased in emerging adulthood accordingly when they gained greater access to smartphones or technological devices, and sexual maturity (Mori et al., 2020). Therefore, the focus on the population of emerging adults in the selected topic would have to be considered as well.

On top of that, the present study also aimed to fill in the literature and knowledge gap on the relationship between mating orientation, dark triad personality and sexting behaviour in the Malaysian context, with gender as the moderator. With Malaysia being considered a more conservative country, the topic of sexting might not be widely explored. Furthermore, due to cultural differences, it might not be advisable to generalise findings from non-local settings to local studies. It has been relatively significant for the government to realise the importance of the exploration of sexting and its predictors, as if not used wisely, sexting might still bring immense potential harm to any individual. On top of that, the significance of gender as a moderator in this study highlighted gender differences in influencing the results. In short, this study was intended to focus on both genders of emerging adulthood in Malaysia, further contributing to the local literature.

Definition of Terms

Emerging Adults

Conceptual definition: Emerging adulthood is defined as a distinct life stage that fills the transitional period between adolescence and young adulthood, typically ranging from 18 to 29 years old (Arnett et al., 2014).

Operational definition: The respondents whose biological ages fall within the range of 18 to 29 years old, residing in Malaysia.

Sexting behaviour

Conceptual definition: Sexting refers to the act of transmitting, receiving, or sharing sexually suggestive and explicit images, videos, or text messages through mobile phones, the Internet, and other electronic devices (Mitchell et al., 2011).

Operational definition: Sexting behaviour will be assessed using the Sexting Behaviour Scale (SBS) developed by Dir (2012). This scale measures the self-reported engagement in sending or receiving sexually explicit text messages, images, or videos through digital communication methods among respondents. A high score indicates more frequent sexting.

Mating Orientation

Conceptual definition: Mating orientation refers to individuals' expressed preferences for committed, long-term relationships or short, uncommitted sexual encounters or their indifference to these specific mating strategies (Jackson & Kirkpatrick, 2007). It consists of 3 dimensions: short-term mating orientation, long-term mating orientation, and sociosexual behaviour. Short-term mating orientation refers to casual, commitment-free sexual relationships focused on pleasure and lacking emotional connection (Koehn & Jonason, 2018). Long-term mating orientation refers to individuals demonstrating a commitment to a partner for an extended duration, typically characterized by sexual exclusivity and the

development of stronger emotional bonds (Tsoukas & March, 2018). Sociosexual behaviour

pertains to sexual behaviours that take place outside of a committed relationship,

encompassing various aspects, including sexual activity (Orille, 2020).

Operational definition: Mating orientation will be assessed by Multidimensional

Sociosexual Orientation Inventory, which is developed by Jackson and Kirkpatrick (2007).

This instrument consists of three dimensions: short-term mating orientation (10 items), long-

term mating orientation (7 items), and sociosexual behaviour (5 items). Respondents with

higher scores indicate a higher level of each mating orientation dimensions.

Dark Triad Personality

Conceptual definition: Dark triad personality, also known as maladaptive personality

traits, is a construct measuring three specific personality traits: narcissism, Machiavellianism,

and psychopathy (Morelli et al., 2021). Narcissism is arrogance, egotism, and self-orientation

(Raskin & Hall, 1979). Machiavellianism is defined by a manipulative approach in

interpersonal interactions, a readiness to exploit others, and a preference for emotionally

detached relationships (Brewer & Abell, 2017). Psychopathy, as an antisocial trait in an

individual, is marked by an absence of empathy and guilt, an inability to regulate impulsive

behaviour, a lack of responsibility, and the presence of irritability and aggressive conduct

(Tarik & Kolenovic-Djapo, 2021).

Operational definition: Dark triad personality will be assessed using the Dark Triad

Dirty Dozen (DTDD) questionnaire developed by Jonason and Webster (2010). The DTDD is

a self-report instrument consisting of 12 items that measure individuals' levels of three dark

personality traits: Machiavellianism, psychopathy, and narcissism. Participants with high

scores demonstrate a prominent level of each dark triad personality trait.

Gender

Conceptual definition: Gender encompasses the cultural associations of attitudes, emotions, and actions linked to an individual's biological sex (American Psychological Association, 2012).

Operational definition: Gender is operationally defined as a self-reported characteristic of individuals based on their identification with categories such as 'female,' 'male,' in accordance with their personal gender identity.

Chapter 2

Literature Review

Sexting Behaviour

Sexting is referred to sending and receiving sexual content (e.g., photos, videos) via the Internet and mobile phones (Gassó et al., 2019). However, the absence of a standardised definition for sexting behaviour remained a central issue in research (Courtice & Shaughnessy, 2021; Gómez & Ayala, 2014; Patrick et al., 2015). Different studies have adopted distinct definitions, with some focused on the transfer of explicit content and others encompassed forwarding (Thang et al., 2020). For example, a perspective employed a more stringent definition, focused solely on the act of transmitting sexually explicit images (Marume et al., 2018). In contrast, a broader view encompassed a range of behaviours, including sending, receiving, and forwarding sexually suggestive and explicit content in various formats, such as images, videos, or text messages (Villacampa, 2017). This lack of consistency resulted in challenges when synthesising findings and comparing them across studies.

Sexting has been a topic with diverse views and interpretations. Several studies have posited that sexting behaviours have become increasingly prevalent (Adigun, 2020; Dir et al., 2013). These studies suggested that engaging in sexting may offer particular advantages, such as a fostered positive body image, bolstered self-confidence (Arsad et al., 2021), and means of intimate communication freed from concerns related to pregnancy or sexually transmitted infections (Walrave et al., 2015). Additionally, there was evidence to suggest that sexting could enhance satisfaction within relationships (Matotek et al., 2021). However, when examining in the Malaysian context, specific research indicated a more cautionary stance, emphasising the potential risks associated with sexting behaviours (Shukor & Osman, 2022). The prevailing discourse in Malaysia suggested that sexting is often perceived as a potentially

hazardous activity, with the bulk of the discussions focusing on its possible detrimental outcomes.

Gender disparities in sexting behaviour have been a subject of investigation, leading to contrasting findings. While some studies revealed no significant differences between males and females (Foody et al., 2023), suggested a comparable engagement in sexting for both genders, other research pointed to distinct gender-specific patterns. Notably, certain studies indicated that girls exhibited a higher likelihood of participating in sexting compared to boys (Adigun, 2020; Maes & Vandenbosch, 2022), emphasised an exploration of the underlying factors contributing to these differences. Conversely, evidence proposed that males take a more active role in sexting (Dir et al., 2013; Sesar & Arta Dodaj, 2019), underscoring the importance of considering both contextual and individual factors to comprehend the intricacies of gender-related sexting behaviours.

Sexting research has conventionally placed its primary focus on secondary school students and adolescents (Adigun, 2020, Sesar & Arta Dodaj, 2019; Arsad et al., 2021; Foody et al., 2023; Maes & Vandenbosch, 2022; Norain et al., 2023), leaving out the broader demographic of emerging adults. This restricted perspective limited our understanding of how sexting behaviours may change in correlation with age, life experiences, and evolving societal dynamics, a viewpoint also reinforced in prior research (Madigan et al., 2018). Expanding the demographic scope in sexting studies would be imperative to comprehend the full spectrum of sexting behaviours from adolescence into emerging adulthood. Sexting follows a discernible developmental pattern, commencing during adolescence, increasing in prevalence with advancing age, and eventually stabilising in early adulthood. Notably, research frequently documented higher instances of sexting among older adolescents, particularly within the 22 to 24 age group, a trend corroborated by Patrick et al. (2015). This

emphasised the notion that sexting has become more widespread as individuals transitioned into adulthood, a noteworthy facet within academic discourse.

In sum, the lack of a standardised definition of sexting would be a major challenge in research, hindering its synthesis and comparison. The primary focus on adolescents ignored emerging adults, limiting understanding of the evolution of sexting across populations. Bridging these gaps would be critical to a comprehensive understanding of sexting behaviour.

Mating Orientation and Sexting Behaviour

Mating orientation could be differentiated into different perspectives, namely long-term and short-term mating, and sociosexual behaviours. Long-term and short-term mating orientations could be differentiated by the period of an individual pursue a relationship during mating selection. With that being said, the linkage between various mating orientations and sexting behaviour has been highlighted in recent studies, like how the preferences of these mating strategies influenced the sexting motivation, sexting intensity, and the outcome of sexting behaviours.

According to Ploharz (2017), long-term mating orientation was positively associated with sexting behaviour as sexting is viewed as a dyadic technique to boost or enhance a specific relationship, in other words, to show sexual availability and might also be used in flaunting own appearances. In long-term mating orientation, long-term mating has been used to benefit the individuals in several aspects of self-development, relationship commitment, and even reproduction. Both men and women might somehow adopt long-term mating orientation with sexting to secure a romantic relationship and enhance the nature of the relationship in the long run. However, statistics showed that men might secure a relationship better when long-term mating strategies were equipped, as women often settle for someone who possess a great level of relationship commitment despite the individual's sexual desirability. Additionally, sexting could also be perceived as a mate retention strategy to

avoid infidelity in the relationship, but it would be associated with distinct levels of risks when such actions are conducted.

On top of that, short-term mating orientation is also positively associated with sexting behaviour. Sexting in short-term mating is known as a fresh mating strategy in securing a potential partner while in competition with others through sexual availability and physical outlooks (Bianchi et al., 2019). In fact, findings stated that people who engaged in short-term mating strategies often intend to sext in short-term mating orientation, individuals ought to emphasise immediate access to the opposite partner and opportunities to secure the relationship into a long-term mate. Furthermore, for non-committed relationships, both men and women utilised sexting to maximise their sexual opportunities, but women might receive more negative influences, such as being pressured to sext. Men were said to apply short-term mating strategies in sexting to optimise sexual benefits and reduce the need for commitment in the relationship (Ploharz, 2017). With this being said, mating orientation could be considered as an essential element in examining its influence towards sexting behaviour. In terms of sociosexual behaviours, there were insufficient studies about the linkage between them, specifically in local studies, further emphasizing the need to investigate this link to better understand the impact of different mating selection strategies. Hence, both long-term and short-term mating orientation and sociosexual behaviours were expected to be positively associated with sexting behaviour.

Dark Triad Personality Traits and Sexting Behaviour

The dark triad personality traits, consisting of psychopathy, Machiavellianism, as well as narcissism, have gained significant attention in the realm of psychological research due to their associations with different problematic behaviours and its interpersonal dynamics. In recent years, scholars have begun to examine the potential links between these personality traits and sexting behaviour, mainly among emerging adults. A comparative study conducted

by Morelli et al. (2021) examined the connection between dark triad personality traits and sexting behaviours across 11 countries, shedding light on the global relevance of this intriguing association. Empirical evidence has found that scoring highly in any of the three dark triad traits was generally associated with an increased propensity for sexting (Clancy et al., 2019; Morelli et al., 2021; Muris et al., 2017).

Psychopathy is characterised by a distinct lack of empathy, impulsivity, as well as manipulative tendencies. Individuals who exhibit higher levels of psychopathy traits might engage in sexting behaviour as a means in order to exploit as well as manipulate others for their personal gain. A study conducted by Sparks et al. (2023) provided evidence of the connection between psychopathy and problematic sexting behaviours. This research highlighted the risk-related correlates of psychopathy, demonstrating its link towards coerced sexting, non-consensual dissemination of intimate images, as well as cyberflashing. These behaviours were indicative of how psychopathic individuals might use sexting as a tool to exert control and dominance over their partners while disregarding the concept of consent.

Machiavellianism, in contrast, is characterised by manipulative and cunning behaviour. Those high in Machiavellianism might utilise sexting to gain control over their partners, further their personal agendas, or exploit them for their benefit. A study conducted by Ferreiros and Clemente (2022) explored the association between Machiavellianism and intimate partner relationships in younger adults, offering valuable insights into this facet of the dark triad. Individuals with higher levels of Machiavellianism tend to exert control over their partners, an important aspect of psychological violence in intimate relationships (Clemente & Espinosa, 2021). There was empirical evidence that supported the view that dark personality traits, including Machiavellianism, were predictors of sexting behaviour (Morelli et al., 2021). Thus, individuals with heightened Machiavellian tendencies in intimate relationships might use sexting as a mechanism to control or exert power over their partners.

Narcissism is characterised by an excessive concentration on one's own needs, vanity, and a distinct deficiency of empathy for others. Narcissistic individuals might engage in sexting behaviours to seek admiration, attention, as well as validation from their partners or peers. Research by Bianchi et al. (2021) delved into the dynamics of sexting during the COVID-19 lockdown, shedding light on the role of narcissism in sexting actions during stressful times. This research illuminated that the individuals displaying narcissistic traits could demonstrate an increased inclination towards participation in sexting behaviours, using this to solicit attention and validation from others. Moreover, those with narcissistic characteristics might exhibit a higher propensity for engaging in sexually risky behaviours, such as sexting with strangers, as a method to enhance their ego and cultivate a heightened sense of personal power.

The association between dark triad personality traits and sexting behaviour provided a fascinating insight into the motivations as well as underlying dynamics of individuals who were engaged in this contemporary form of communication (Morelli et al., 2023). Whereas these traits might not be the sole determinants of sexting behaviour, they did play a key role in shaping how individuals' approach as well as being engaged in sexting. Understanding these connections might help inform interventions, prevention efforts, and educational initiatives aimed at promoting healthy and consensual sexting behaviour amongst emerging adults (Clancy et al., 2019). Moreover, this research underscored the global relevance of the dark triad personality traits and their influence on many aspects of human behaviour and relationships.

In short, existing research has highlighted associations between psychopathy, Machiavellianism, and narcissism with a myriad of problematic behaviours, but a comprehensive exploration of their specific associations with sexting remains scarce. This study formulated hypotheses positing that individuals scoring high in dark triad traits would

exhibit an increased propensity for engaging in sexting, thus revealing the subtle motivations and dynamics behind this modern form of communication.

Gender as a Moderator

Mating Orientation and Sexting Behaviour

Gender differences are undeniably considered as a crucial moderator in understanding the relationship between mating orientations (long, short, and social) and sexting behaviour as results for males and females might differ to a certain extent when looking in depth at the topic of interest. The inconsistency of results provoked the need to reiterate the study and identify factors leading to the inconsistency.

For men who engaged themselves in long-term mating orientation, their ultimate objective would be to maximise benefits like reproduction success and motivation to fulfil women's needs in seeking a committed partner in a relationship. Studies have indicated that men have a greater successful mating rate when long-term mating strategies were utilised, as women would feel more secured when the men showed greater commitment, as commitment is included as one of the securing traits in long-term mating orientation. Unlike men, women would still go for a less sexually desirable partner if he still portrayed a great level of commitment. For instance, the results collected from 218 college students through an online survey found that sexting has become a common technique used to initiate the pursuit of a relationship (Ploharz, 2017). For mating orientations, women preferred long-term mating orientation, but results did not significantly increase the use of sexting when implementing long-term mating orientation. However, women still use short-term mating strategies to fulfil initial mating needs to secure a potential relationship that can evolve from short to long-term (Ploharz, 2017).

From the contradictory stand, both men and women would sext in short-term mating orientations, specifically non-committed relationships. For men, Phoharz (2017) clarified that

they would approach a greater number of females to seek sexual availability and access, in other words, maximising the number of sexual partners. This was said as men often use lesser time to get used to the individual or less exposure before proceeding to sexual intercourse when compared to women. This emphasised that such actions require lesser commitment, leading men to prefer short-term mating orientation. Although some females still opt for short-term mating strategies, mainly for immediate partner access and potentiality in securing a long-term partner, they would still be less likely to prefer short-term mating strategies due to the detrimental risks and consequences. To sum it up, both men and women might use sexting as a primary exposure in initiating a partner in short-term mating orientation (Buss & Schmidt, 1993; Ploharz, 2017).

In other words, the impact of gender in moderating how varied mating orientation strategies influence sexting behaviours differed to a certain extent. This could also be interpreted as different genders adapting differently to different strategies, thus owing to different results when it comes to sexting behaviour. Furthermore, insufficient local studies regarding this issue and the inconsistencies of results concerning the moderating effect of gender reiterated the urge to look into this direction of study. Therefore, it is said that gender would moderate the relationship between mating orientation and sexting behaviour.

Dark Triad Personality Traits and Sexting Behaviour

This research delved into the interplay between gender and dark triad personality traits, as well as sexting behaviours in emerging adults. The dark triad personality traits, which includes narcissism, Machiavellianism, and psychopathy, guided the framework for understanding manipulative and egocentric tendencies. By examining how gender moderates this relationship, insights into unique patterns and motivations could be recorded, thus contributing to a nuanced understanding of sexting dynamics in contemporary emerging adult relationships.

Psychopathy manifested contrarily in males and females within the context of sexting. Particularly, males high in psychopathy might utilise sexting as a means of exploiting as well as manipulating others for sexual gratification (Clancy et al., 2019). They might engage in coercive behaviours, using sexts to exert control over their partners, frequently without their consent. In contrast, females with high psychopathic traits might leverage sexting as the tool for achieving social dominance or emotional control within the relationship (Ragona et al.,2023). Their motivations might stem from the desire to manipulate their partner's emotions and maintain a position of dominance.

Machiavellianism, characterised by the manipulative and calculating method of interpersonal relationships, might be intricately linked towards power dynamics in romantic and sexual relationships. A study by Dębska et al. (2021) revealed that gender nuances impacted how this trait was expressed through sexting conduct. Males and females with high Machiavellianism might participate in sexting to manipulate their partners or to gain an advantage within the relationship. Understanding how gender influenced the expression of Machiavellianism in sexting might offer critical insights into the dynamics at play.

Narcissism, on the other hand, marked by an excessive need for admiration as well as an inflated sense of self-worth, could also be influenced by gender in the context of sexting (Resett et al., 2022). Males high in narcissism might use sexting to gain admiration as well as to boost their ego. They might send explicit images and messages to receive praise and validation. In contrast, Ragona et al. (2023) stated that females high in narcissism might employ sexting to seek validation as well as attention from others, aimed to bolster their self-esteem through external affirmation.

In short, this study investigated the moderating role of gender in the relationship between dark triad personality traits and sexting behaviours among emerging adults. In addressing a significant gap in the literature where limited attention has been given to gender

as a moderator, this research aimed to describe unique patterns in the engagement with and motivations behind sexting behaviour among men and women. This identification of an underexplored aspect of sexting dynamics is imperative for the development of interventions and educational programs that can effectively address gender-specific nuances in sexting behaviour.

Theoretical Framework

Sexual strategy theory (Buss & Schmitt, 2016) and personality theory (Palmer et al., 2020) were the two theories used to support the framework of this study. The sexual strategies theory explained how humans use different strategies or methods to achieve their mating objectives and goals, while experiencing adaptive problems for both men and women. The personality theory postulated that individuals' consistent patterns of feeling, thinking, as well as behaving emerge from innate tendencies and the interplay of these tendencies with the environment (Palmer et al., 2020).

Sexual Strategies Theory

According to Buss and Schmitt (2016), the sexual strategies theory is a repertoire of mating strategies implemented by both genders that can be coupled with multiple motives, for instance, long-term and short-term mating orientations. The two critical variables when studying sexual strategies theory were namely the time span (temporal variable) and the biological sex (male or female). Thus, the theory would be applied by both males and females in securing a relationship or achieving their optimal goal in relationships. Temporal mating durations could be broken down into long- and short-term mating. For long-term mating strategies, it is known for commitment, parental involvement, and investment bonding; short-term mating strategies are commonly referred to as casual outings like one-nightstands, affairs, and hookups. Therefore, when adaptive problems surfaced, both men and women are to seek ways to curb these adaptive problems.

For men, they ought to solve the beset adaptive issues like minimising the involvement cost or commitment effort and increasing the number of sex mate accessibility. In comparison to women, men would often seek short-term oriented sex, also known as having multiple sex partners with less commitment and preferably the more easily accessible ones that demonstrate attractive sexual cues. In contrast, when using short-term mating strategies, women would often face adaptive issues like selecting the best or higher value partners, immediate accessibility to socioeconomic statuses, identifying potential long-term partners, and even eyeing a 'backup' partner if the relationship does not work out. Behind this motive, women would seek partners who tend to be more physically appealing, no matter the appearance or the physique, since it is a short-term relationship. They would also apply such methods to help themselves let go of a past painful relationship experience (Buss & Schmitt, 2016).

On top of that, both men and women might face a certain likelihood in adaptive issues of long-term mating strategies, namely the need to identify a potential and correct partner that will stay committed in the relationship or one capable of being a good parent. Men would strongly consider the partner's age and reproductive fertility or potential. It is an irrefutable fact that women's fertility is strongly associated with their age, thus owing to the reason men would prefer younger and physically more attractive women when it comes to long-term oriented relationships, especially when an offspring is desired. Men would also take stringent measures when it comes to relationship infidelity as they show great dislike of such unethical behaviours if shown in their partners. For women, the partner's socioeconomic resources and willingness to invest in themselves are prioritised in long-term oriented relationships. Moreover, women would take consideration of the men's physique and appearances to boost the feeling of secureness in the relationship and the feeling of being protected (Buss & Schmitt, 2016).

Personality Theory

This study examined the role of personality theory in understanding the relationship between individual differences in personality structure and engagement in sexting behaviours among emerging adults. The dark triad is a cluster of psychological qualities that include narcissism, Machiavellianism, and psychopathy. Manipulative tendencies, self-centeredness, and a deficiency in empathy define these traits. Gaining insight into how these characteristics have become evident within the context of personality theory facilitated a more profound analysis of the incentives and fundamental mechanisms that prompt individuals possessing dark triad qualities to engage in sexting.

Psychopathy, characterized by impulsivity and the lack of empathy, can be seen as an extreme manifestation of high extraversion as well as low agreeableness in the Five-Factor Model of Personality (Palmer et al., 2020). Given the impulsivity and reduced empathy, sexting might serve as a platform for these individuals to express and satisfy their immediate needs, with little regard for the feelings or rights of others. Dębska et al. (2021) claimed that the digital realm provided an easy avenue for psychopathic individuals to exert control and dominate, as the medium was devoid of immediate social repercussions.

Machiavellianism could be related to low agreeableness, given its manipulative nature, but might also entail low openness to experience as people with this trait frequently adopt conventional means to achieve their ends (Tang et al., 2021). Within the context of sexting, Machiavellianism would manifest as using the act of sexting as a tool – a means to an end – to manipulate as well as control their partner or to extract some form of benefit, be it material or emotional (Clancy et al., 2019).

Narcissism, marked by an inflated self-concept, could be linked towards high extraversion and low agreeableness (Dębska et al., 2021). The digital realm offered a platform whereby narcissistic individuals could constantly seek validation, admiration, and

attention. Sexting has become a means to highlight themselves, craving the adoration as well as affirmation that boosts their already inflated ego.

Gender acted as a noteworthy moderator in the context of personality theory. Both biological and social factors shaped gendered expressions of personality traits as well as behaviours. For instance, society's gender roles and expectations could influence how the dark triad traits manifest in sexting behaviours (Tang et al., 2020). Males might be more inclined towards assertive as well as dominance-seeking behaviours due to societal norms around masculinity, thus leveraged sexting for validation and power. In contrast, females might use sexting as a tool to attain relational goals, stemming from societal expectations around femininity as well as emotional connectivity.

Conceptual Framework

The present study examined the factors affecting sexting behaviour among emerging adults in Malaysia. The factors included were as such: mating orientation (long-term mating orientation, short-term mating orientation, and sociosexual behaviour), dark triad personality (psychopathy, Machiavellianism, narcissism) and gender acting as a moderator. Hence, the conceptual framework guided by the sexual strategies theory (Buss and Schmitt, 2016) and personality theory (Hogan & Sherman, 2020). According to Figure 2.1, mating orientation and dark triad personality are predictors for sexting behaviour, the outcome variable, with gender as the moderator.

Figure 2.1.

Conceptual framework of Mating Orientation, Dark Triad Personality and Sexting Behaviour

with gender as a moderator among emerging adults in Malaysia.

Independent Variable   Dependent Variable

```
                                    ┌──────────┐
                                    │  Gender  │
                                    └────┬─────┘
 ┌────────────────────────┐             │
 │ Mating Orientation     │             │
 │   • Long               │             ▼
 │   • Short              │──┐    ┌────────────────────┐
 │   • Social             │  │    │                    │
 └────────────────────────┘  ├───▶│  Sexting behaviour │
 ┌────────────────────────┐  │    │                    │
 │ Dark Triad Personality │  │    └────────────────────┘
 │   • Psychopathy        │──┘
 │   • Machiavellianism   │
 │   • Narcissism         │
 └────────────────────────┘
```
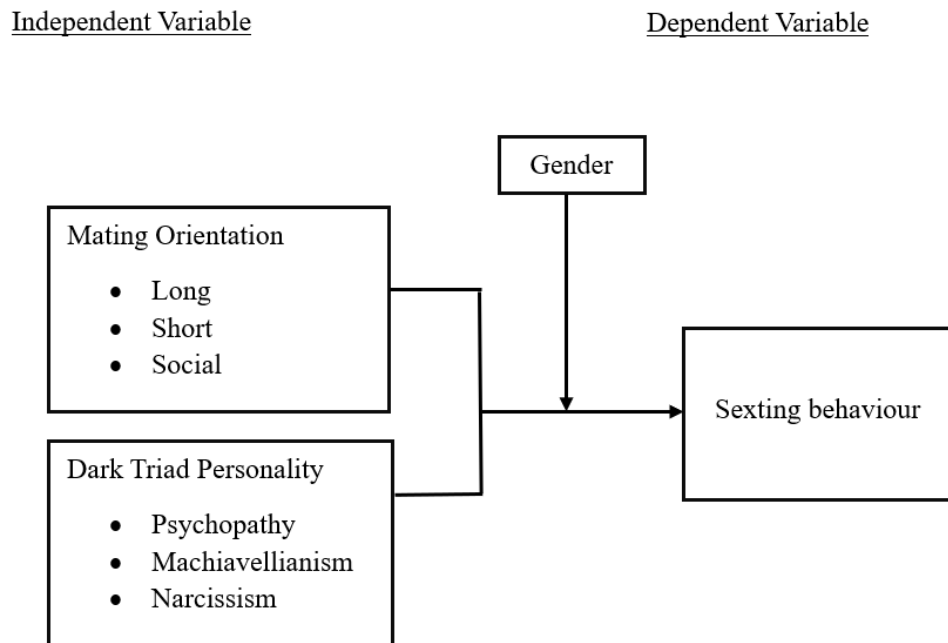
Chapter 3

Methodology

Research Design

The study used a cross-sectional design, focused on quantitative methods, and employed an online survey to collect data. According to Wang and Cheng (2020), a cross-sectional study design was suitable for examining data from a population at a specific moment, measuring both outcomes and exposures simultaneously. This study adopted the correlational research design, primarily examining relationships among multiple variables. The quantitative data analysis involved analytical statistics to interpret the gathered information through the survey. This approach aligned with the study's aim to explore the relationship between mating orientation and dark triad personality on sexting behaviours among emerging adults in Malaysia. An online survey method was employed to ensure efficient data collection, as it is considered relatively affordable and allows researchers to reach a larger population (Regmi et al., 2016). Qualtrics, a widely used survey platform, was chosen as the tool for collecting data in this study. This comprehensive approach combined the benefits of a quantitative, cross-sectional design with correlational analysis, utilizing the efficiency of online surveys to investigate the targeted population (McCusker & Gunaydin, 2015).

Sampling Method

This study employed an online sampling method due to its advantage as it granted easy access to a wide array of survey participants. The Internet's accessibility has reduced surveying costs and barriers, making reaching a large and diverse sample of participants more cost-effective (Fricker, 2008). This simplified the research process, ensuring efficiency and affordability. One of the types of online sampling employed was unrestricted self-selected survey methods. According to Fricker (2018), an unrestricted self-selected survey is a non-probability sampling method open to the public. It allows anyone to participate by posting the survey on a website or promoting it through internet-based ads and traditional media channels. Thus, this

study posted the survey on various social media such as Instagram and Facebook. Although this type of sampling method sounded biased, it was helpful for the researchers to collect most of the targeted participants. Therefore, in this study, the researchers had set the inclusion criteria for respondents to participate: (1) 18 to 29 years old, (2) Malaysians, (3) an equal number of male and female participants, (4) engaged in sexting, for individuals who did not meet the criteria were excluded in this study.

Sample Size

A statistical analysis, which was G-Power, was conducted to determine the sample size. In this study, the chosen desirable formula for sample size calculation was a 95% confidence level and a 5% margin of error (Naing et al., 2022). In order to comprehend the correlation coefficient (*r*) in the study, the researchers referred to journal articles on the research topic. The researchers required an average effect size encompassing both predictors, mating orientation and dark triad personality, to determine the appropriate sample size for the current study. After calculation, the effect size in this study was 0.191, indicating a small effect size (Sullivan & Feinn, 2012). Based on the G-Power sample size calculator, the minimum sample size required for the study was 151 participants. In order to avoid potential issues such as missing data, it was necessary to collect additional responses with an additional 15%. Thus, the targeted sample size for this study was increased to 174 participants. In the actual study, the researchers collected 183 responses after removing the data from 202 responses due to the issue of missing or incomplete responses and straight-lining issues.

Research Procedure

Before commencing the pilot study, researchers sought ethical approval from the Scientific and Ethical Review Committee (SERC) of UTAR. Researchers received ethical clearance approval on December 21, 2023, with the reference number U/SERC/326/2023. To effectively reach the sample of emerging adults aged 18-29 in Malaysia, an online

recruitment strategy was employed using Qualtrics. A key component of this strategy involved the creation of an engaging and informative poster using graphic design tools. This poster encapsulated the essence of the study, highlighting key aspects such as the research objectives, the significance of the study, and the voluntary and confidential nature of participation. The poster, along with the survey link, was distributed across various social media platforms, such as Facebook, Instagram, and WhatsApp, as well as on relevant online forums catering to the target participants.

Ethical considerations in this study were paramount to ensure that the well-being and rights of the participants were protected. The first page of the questionnaire included an information sheet and a consent form designed to provide participants with comprehensive and detailed information about the study. The information sheet outlined the study's key aspects, including the study's objectives, the survey's expected duration, and the importance of maintaining participant privacy and confidentiality. The consent form sought the participant's explicit agreement to participate in the study. This proactive approach was consistent with ethical principles and emphasised transparency and participant autonomy. Participants were allowed to make an informed decision on whether or not to participate in the study, ensuring their consent was voluntary and informed. Finally, following the acquisition of ethical approval from UTAR, the online survey was disseminated to participants from January 15 to February 18, 2024.

Instruments

Three different instruments were utilised in this study, namely the Multidimensional Sociosexual Orientation Inventory (MSOI), Dark Triad Dirty Dozen (DTDD) and Sexting Behaviours Scale (SBS).

Multidimensional Sociosexual Orientation Inventory (MSOI)

Mating orientation was measured by using the Multidimensional Sociosexual Orientation Inventory (MSOI) introduced by Jackson and Kirkpatrick (2007). The MSOI is identified as a more complex instrument and fulfilled the multidimensional constructs in assessing sociosexual behaviours and attitudes. This questionnaire consisted of 22 items, which were differentiated into three main dimensions: long-term mating orientation (7 items), short-term mating orientation (10 items), and sociosexual behaviour (5 items). The long-term and short-term mating orientation dimensions were considered as attitudinal responses, measured by a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Sample items included, " I can easily see myself engaging in a long-term romantic relationship with someone special.", "I can easily imagine myself being comfortable and enjoying 'casual' sex with different partners.", and "How often do you fantasize about having sex with someone other than your current dating partner?". The scale had a good internal consistency of α = .90 and α = .84 for both short-term and long-term mating orientation respectively (Fajardo et al., 2022). From another local study, the averaged item scores also showed a good internal consistency of *α* = .83 (Goh et al., 2023).

Dark Triad Dirty Dozen (DTDD)

Dark triad personality traits were measured by the Dark Triad Dirty Dozen (DTDD) developed by Jonason and Webster (2010). This scale measured an individual's tendency to engage in the three primary constructs of Dark Triad traits: Machiavellianism, psychopathy, and narcissism. This self-report questionnaire consisted of 12 items and is rated based on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree) with sample items of "I tend to exploit others towards my own end." (representing Machiavellianism), "I tend to be callous or insensitive." (representing psychopathy), and "I tend to want others to pay attention to me." (representing narcissism). Interpretations of results showed that high scores

indicate a higher degree in the respective constructs of dark traits. Aisyah et al. (2022) examined the scale's reliability and found out that all scale dimensions presented good internal consistencies of α > .79.

Sexting Behaviours Scale (SBS)

Sexting behaviour was assessed using the Sexting Behaviours Scale (SBS), introduced by Dir et al. (2011). The SBS is used to measure the prevalence rate or frequency of sexting behaviours, which included receiving and sending sexts, and the sexts contents. This scale initially consisted of 11 items, but the last item was removed due to unclarity and was left with 10 items. It is measured by a 5-point Likert scale (1 = never to 5 = frequently or daily). Some sample statements included "How often have you received provocative or suggestive pictures by text message?", "How often has someone responded to a suggestive or sexually charged text or picture message you sent?", and "How many people have you exchanged provocative pictures or texts with?". This scale has also demonstrated good internal consistency of α = .92, indicating excellent reliability (Jeanfreau et al., 2021).

Data Analysis

In this study, a number of data analyses were conducted by using SPSS version 27. At the initial stage, the normality test was done to determine whether the sample data was taken from the normal distribution of population, including the use of skewness, kurtosis, Q-Q plots and boxplots. Pearson's Product-Moment Correlation (PPMC) was also conducted to evaluate the relationship between the variables: mating orientation, dark triad personalities, gender and sexting behaviour. Then, multicollinearity was examined for the assumptions of Multiple Linear Regressions (MLR) by measuring the correlation coefficient, tolerance and Variance Inflation Factor (VIF) via Mahalanobis Distance (MD), Cook's Distance (CD), and Centered Leverage (CL) were conducted based on the application of two standard deviations. Moreover, the MLR assumptions were evaluated to find the linear relationship between

several independent and dependent variables. Next, Hierarchical Multiple Linear Regression (HMLR) was performed to explore the association between mating orientation, dark triad personality and sexting behaviour, as well as to identify whether the targeted variables account for a statistically significant amount of variance in sexting behaviour upon controlling the other variables. It also allowed the identification of the most influential variable in predicting sexting behaviours, as well as to find any possible interactions among other variables. For the moderation analysis of variables, Hayes SPSS Process Macro – Model 1 was used to examine the two-way interactions among gender and the independent variables. However, the results from HMLR concluded that gender did not moderate the association between mating orientation, dark triad personality and sexting behaviour, so the study did not proceed to the Hayes SPSS Process Macro - Model 1. Lastly, demographic information like gender, age, nationality, employment status, relationship status, sexual preferences, sexting addiction, and subjects were noted as descriptive statistics in the study.

Pilot Study

According to Malmqvist et al. (2019), a pilot study is a small-scale preliminary study conducted before the actual study to evaluate and refine research procedures, tools, and data collection methods. This study used Qualtrics to create the questionnaire and distribute it to targeted participants. A total of 30 responses were collected. After collecting the data, a reliability test using SPSS version 27 was conducted to assess the internal consistency of each instrument. Based on Ekolu and Quainoo (2019), Cronbach's alpha values between .5 and .8 refers to a moderate (acceptable) reliability, while higher than .8 indicates good internal consistency. The findings revealed that all instruments in this study demonstrated acceptable and good internal consistency (see Table 3.1). Thus, this result indicated that all the instruments were reliable and were able to proceed with the actual study.

Actual study

In the present research, the questionnaire was distributed to potential participants via social media platforms such as Facebook, WhatsApp, Instagram, and WeChat. A total of 202 responses were collected. However, only 183 complete responses met the requirements; 16 incomplete and 3 straight-lining responses were excluded. Similar to the pilot study, a reliability assessment was conducted to evaluate the consistency of each measurement tool. Results indicated an acceptable range of internal consistency, with Cronbach's alpha values ranging from $\alpha = .5$ to $.8$, while higher than $.8$ indicates good internal consistency (Ekolu & Quainoo, 2019).

Table 3.1

Reliability of Instruments in Pilot Study and Actual Study

Variable	Number of items	Cronbach's alpha	
		Pilot Study (n=30)	Actual Study (n=183)
Short-term mating orientation	10	.817	.904
Long-term mating orientation	7	.884	.851
Sociosexual behaviour	2	.503	.626
Machiavellianism	4	.729	.879
Psychopathy	4	.913	.847
Narcissism	4	.641	.899
Sexting behaviour	9	.925	.929

Chapter 4

Result

This chapter presented the findings derived from the data analysis conducted in the study. The results were organised into five sections: normality assumptions, outlier, multiple linear regression assumptions, descriptive statistics, and the data analysis for each research hypothesis.

Normality Assumptions

The normality assumption refers to the data collected that follows a normal distribution, which is crucial for parameter assumptions (Kim & Park, 2019). In the research, the normality assumption for dark triad personality, mating orientation, and sexting behaviour was tested using the Q-Q plot, histograms, skewness and kurtosis, and Kolmogorov-Smirnov test.

Q-Q plot

The result of variables indicated that the data points were lying nearly along the diagonal line (refer to Appendix E). Hence, the normality assumption for the Q-Q plot was achieved.

Histogram

The histogram showed a bell-shaped curve for three variables, which indicated a normal distribution (refer to Appendix F). Hence, the normality assumption for the histogram was achieved.

Skewness and Kurtosis

According to the research (Ibrahim Murtala Aminu & Mohd Noor Mohd Shariff, 2014), the acceptable range for skewness and kurtosis are <3 and <10, respectively. In the study, all the skewness and kurtosis values fell within the acceptable range (refer to Table 4.1), indicating that the normality assumption was met.

Table 4.1

Skewness and Kurtosis

Variable	Skewness	Kurtosis
Machiavellianism	.089	-.773
Psychopathy	.358	-.398
Narcissism	-.659	-.159
Short-term Mating Orientation	.198	-.732
Long-term Mating Orientation	-.959	1.024
Sociosexual Behaviour	.231	-.921
Sexting Behaviour	.637	-.252

Kolmogorov-Smirnov Test

Table 4.2 presented the results of the normality tests conducted for the variables which are Machiavellianism, psychopathy, narcissism, short-term mating orientation, long-term mating orientation, sociosexual behaviour, and sexting behaviour. All the variables were considerably normal (refer to Table 4.2). Hence, the normality assumption for the histogram was achieved.

Table 4.2

Kolmogorov-Smirnov

Variable	Statistic	Sig.
Machiavellianism	.058	.200*
Psychopathy	.073	.018
Narcissism	.137	<.001
Short-term Mating Orientation	.075	.014
Long-term Mating Orientation	.121	<.001
Sociosexual behaviour	.128	<.001
Sexting behaviour	.132	<.001

Note. *. This represents a lower bound of the true significance.

Outlier

Univariate Outliers

According to Mowbray et al. (2018), univariate outliers represent extreme values that significantly exceed the anticipated range for a single variable within a dataset. In the present study, boxplot was used to identify the univariate outlier. Based on the result (refer to Appendix G), 7 outliers were found, but there were no input errors, and they did not significantly impact the normality distribution or the findings of this study (Aguinis et al., 2013). As a result, they were not dropped.

Multivariate Outliers

A multivariate outlier is an extreme observation that deviates significantly from most cases across multiple variables in a dataset (El-Masri et al., 2020). To identify the multivariate outlier, Mahalanobis Distance (MD), Cook's Distance (CD), and Centered Leverage (CL) were conducted based on the application of two standard deviations. According to the casewise diagnostics table (refer to Appendix H), 8 cases exceeding two standard deviations was considered as potential multivariate outliers. The results of MD, CD, and CL for all the cases were summarised (refer to Appendix I). The MD and CD of the potential multivariate outlier did not exceed 15 and 1, respectively, which the residual statistic did not meet. The CL of the potential multivariate outlier was higher than twice the leverage's value [$\frac{(3+1)}{486} \times 2 = 0.0165$], which may be considered an outlier. Since two out of three residual statistics were met, all the 8 cases were not removed. In short, no multivariate outlier was found.

Multiple Linear Regression Assumptions

In the present study, the assumption of multiple linear regression was conducted. According to Shrestha (2020), multicollinearity arises when two or more independent variables are interrelated in a regression model. Hence, the study utilized the multicollinearity

analysis. The Variance Inflation Factor (VIF) and tolerance were tested to ensure the multicollinearity was not violated. Based on Shieh's findings (2010), the researcher suggested that the predictor's tolerance value must be more than .10, while the value of VIF must be less than 10. This assumption was achieved in the present study because the tolerance values for each predictor exceeded .10, and the values of VIF were under 10. Hence, the indicators of VIF and tolerance did not support multicollinearity, which met the assumption of MLR.

Table 4.3

Collinearity Statistics

	Tolerance	VIF
Machiavellianism	.440	2.272
Psychopathy	.407	2.455
Narcissism	.671	1.490
Short-term Mating Orientation	.645	1.550
Long-term Mating Orientation	.518	1.932
Sociosexual behaviour	.544	1.837

Descriptive Statistics

Demographic Information

As shown in Table 4.4 is the demographic information of 183 respondents. In this study, the researchers have collected 81 (44.3%) males and 102 (55.7) females who were between the age of 18 to 29 (M = 22.19, SD = 2.01). Among the 183 respondents, there were 173 (94.5%) Chinese, 5 (2.7%) Indians, 3 (1.6%) Malays and 2 (1.1%) of other races like Bidayuh and Bumiputera. For the relationship statuses, 91 (49.7%) of them were single, 90 (49.2%) of them were in a relationship, and 2 (1.1%) of the respondents were married. As for the employment statuses, 158 (86.3%) of them were students, 20 (10.9%) were full-time

employed, 3 (1.6%) were part-time employed, and 2 (1.1%) of them were unemployed. On top of that, the sexual orientation or preferences of the participants were collected as such: 17 (9.3%) of them were attracted to the same sex, 141 (77%) of them were attracted to the opposite sex, while lastly 25 (13.7%) of them were attracted to both sexes. In terms of sexting addiction, responses variated in terms of 99 (54.1%) participants who were not addicted to sexting, 41 (22.4%) of them were slightly addicted to sexting, 20 (10.9%) of them were moderately addicted, 6 (3.3%) were strongly addicted, and 17 (9.3%) were uncertain whether was there an addiction for sexting. Additionally, for the subject of sexting, 60.1% of the participants claimed that they sext with their romantic partner, 29% of them sext with their potential partner, 30.1% sext with someone they know, while 16.9% sext with someone they do not know. Platforms for sexting included social media and tinder platforms like WhatsApp, Instagram, X (Twitter), Telegram, WeChat, Messenger, Snapchat, Tantan, Discord, Soul and so on.

Descriptive Statistics on Sexting Behaviour

According to the findings, sexting behaviour among emerging adults in Malaysia held a mean and standard deviation of (M = 20.59, SD = 7.90), with a minimum score of 9.00 and a maximum score of 42.00. In terms of the level of sexting behaviours, 32 out of 183 participants scored low levels of sexting behaviour (17.49%), while 122 participants had moderate levels of sexting behaviour (66.67%), and 29 participants scored high levels of sexting behaviour (15.85%). Thus, the results showed that the level of sexting behaviours among emerging adults in Malaysia was at a moderate level.

Table 4.4

Sociodemographic Characteristics of Participants at Baseline

Baseline characteristics	n	%
Gender		
Male	81	44.3
Female	102	55.7
Ethnicity		
Chinese	173	94.5
Malay	3	1.6
Indian	5	2.7
Others	2	1.1
Relationship Status		
Single	91	49.7
In a relationship	90	49.2
Married	2	1.1
Employment Status		
Student	158	86.3
Unemployed	2	1.1
Part-time employed	3	1.6
Full-time employed	20	10.9
Sexual Preferences		
Attracted to same sex	17	9.3
Attracted to opposite sex	141	77.0

Attracted to both sexes	25	13.7
Sexting Addiction		
Slightly addicted	41	22.4
Moderately addicted	20	10.9
Strongly addicted	6	3.3
Not addicted	99	54.1
Not sure	17	9.3
Sexting Subject (multiple choice)		
Romantic partner	110	60.1
Potential partner	53	29.0
Someone I know	55	30.1
Someone I don't know	31	16.9

Note. $N = 183$. Participants were on average 22.2 years old (SD = 2.01), and participant age did not differ by condition.

Inferential Statistics

Mating Orientation and Sexting Behaviour

H_{1a}: Short-term mating orientation is positively correlated with sexting behaviour.

H_{1b}: Long-term mating orientation is positively correlated with sexting behaviour.

H_{1c}: Sociosexual behaviour is positively correlated with sexting behaviour.

The Pearson Product-Moment Correlation (PPMC) was used to analyse the relationship between mating orientation (short-term mating orientation, long-term mating orientation and sociosexual behaviour) and sexting behaviour among emerging adults in Malaysia. The results in Table 4.5 showed that there were significant associations between

mating orientation and sexting behaviour, namely the short-term mating orientation and sexting behaviour, $r(181) = .414$, $p < .001$, the long-term mating orientation and sexting behaviour, $r(181) = -.220$, $p = .003$, the sociosexual behaviour and sexting behaviour $r(181) = .260$, $p < .001$ among emerging adults in Malaysia. Hence, mating orientation (short-term mating orientation and sociosexual behaviour) was positively correlated with sexting behaviour, while long-term mating orientation was negatively correlated with sexting behaviour. The hypotheses H_{1a} and H_{1c} were supported, while H_{1b} was not accepted.

***Dark Triad Personality Traits* and Sexting Behaviour**

H_{1d}: Narcissism is positively correlated with sexting behaviour.

H_{1e}: Machiavellianism is positively correlated with sexting behaviour.

H_{1f}: Psychopathy is positively correlated with sexting behaviour.

For the association between dark triad personalities (narcissism, Machiavellianism, psychopathy) and sexting behaviour, PPMC was utilised. The results in Table 4.5 showed that there were significant relationships between Machiavellianism and sexting behaviour, $r(181) = .352$, $p < .001$, and psychopathy and sexting behaviour, $r(181) = .458$, $p < .001$. However, the relationship between narcissism and sexting behaviour was not significant, $r(181) = .103$, $p = .164$. Thus, Machiavellianism and psychopathy were positively correlated with sexting behaviour, while narcissism was insignificantly correlated with sexting behaviour. Therefore, the hypotheses H_{1e} and H_{1f} were supported, while H_{1d} was not accepted.

Table 4.5

Correlations among Mating Orientation, Dark Triad Personality and Sexting Behaviour

Variable	n	M	SD	1	2	3	4	5	6	7
1. Sexting Behaviour	183	20.590	7.903	−						
2. Short-term Mating Orientation	183	34.792	14.757	.414***	−					
3. Long-term Mating Orientation	183	39.497	8.129	-.220**	-.450***	−				
4. Sociosexual Behaviour	183	8.514	4.182	.260***	.519***	-.612***	−			
5. Narcissism	183	18.071	6.147	.103	.161*	.109	.072	−		
6. Machiavellianism	183	14.219	6.304	.352**	.370***	-.251***	.269***	.476***	−	
7. Psychopathy	183	12.437	5.770	.458**	.420***	-.389***	.368***	.421***	.719***	−

Note. M = mean; SD = standard deviation; *p < .05. **p < .01. ***p < .001.

Mating Orientation, Dark Triad Personality Traits and Sexting Behaviour

H2: Mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour) and dark triad personality traits (narcissism, Machiavellianism, and psychopathy) significantly predicted sexting behaviour among emerging adult samples.

A Multiple Linear Regression (MLR) analysis was conducted without the violation of any MLR assumption. Narcissism personality trait was excluded as the variable was found to be statistically insignificant prior the analysis. According to the results found, the regression model was statistically significant, $F(5, 177) = 13.200$, $p < .001$, while accounting for 27.2 % of the variance. Short-term mating orientation ($\beta = .281$, $p < .001$) and psychopathy ($\beta = .353$, $p < .001$) significantly predicted sexting behaviour, with psychopathy being the most influential predictor ($\beta = .353$, $p < .001$). In contrast, long-term mating orientation ($\beta = .056$, $p = .508$), sociosexual behaviour ($\beta = .018$, $p = .840$), and Machiavellianism ($\beta = .004$, $p = .966$) were not statistically significant as the p-values were greater than .05. Since only each one of the variables from mating orientation and dark triad personality traits turned out to be statistically significant, therefore, the overall effect of mating orientation and dark triad personality did not significantly predict sexting behaviour, and H2 was not supported.

Table 4.6

Regressions of Associations Between Mating Orientation (short-term, long-term, sociosexual behaviour), Dark Triad Personality Traits (psychopathy, Machiavellianism) and Sexting Behaviour

Variable	SE	β	p
Short-term mating orientation	.043	.281***	<.001
Long-term mating orientation	.082	.056	.508
Sociosexual behaviour	.164	.018	.840
Psychopathy	.134	.353***	<.001
Machiavellianism	.117	.004	.966
R^2		.272	
$Adj.R^2$		.251	
F		13.200***	
df		(5, 177)	

Note. SE = standard error; *β* = Beta; *** p < .001

Gender as Moderator

H₃ₐ: Gender moderates the relationship between short-term mating orientation and sexting behaviour.

H₃ᵦ: Gender moderates the relationship between long-term mating orientation and sexting behaviour.

H3c: Gender moderates the relationship between sociosexual behaviour and sexting behaviour.

H3d: Gender moderates the relationship between narcissism and sexting behaviour.

H3e: Gender moderates the relationship between Machiavellianism and sexting behaviour.

H3f: Gender moderates the relationship between psychopathy and sexting behaviour.

A Hierarchical Multiple Linear Regression (HMLR) analysis was employed to explore the potential moderating influence of gender on the relationship between mating orientation, dark triad personality traits, and sexting behaviour. Initially, gender was coded using dummy variables, with "0" representing female participants and "1" representing male participants. Subsequently, all independent variables were standardized to facilitate comparison. Interaction terms were then computed between the standardized independent variables and gender to assess potential moderation effects. The HMLR was conducted across three models. Model 1 included gender as a control variable. In Model 2, all independent variables were introduced alongside with gender. Finally, Model 3 incorporated interaction terms between each independent variable and gender to evaluate moderation effects. This comprehensive analytical approach allowed for a nuanced examination of the interplay between gender, mating orientation, dark triad personality traits, and sexting behaviour, shedding light on potential moderating effects, and enhancing our understanding of these complex relationships.

In Model 1, the beta coefficient for gender ($\beta = .286$, $p < .001$) indicated a significant positive relationship between gender and sexting behaviour.

In Model 2, the result was statistically significant, $R^2 = .317$, adjusted $R^2 = .290$, F

(6, 175) = 10.06, $p < .001$ and explained for 31.7% of the variance. Furthermore, psychopathy had the strongest statistically significant positive association with sexting behaviour ($\beta = .386$, $p < .001$), followed by short-term mating orientation ($\beta = .218$, $p = .008$). However, other variables such as Machiavellianism ($\beta = .067$, $p = .478$), narcissism ($\beta = -.131$, $p = .087$), long-term mating orientation ($\beta = .107$, $p = .218$), and sociosexual behaviour ($\beta = .040$, $p = .637$), did not show significant associations with sexting behaviour in this model. The effect size was .46, determined by applying the formula $f^2 = R^2 / (1 - R^2)$, indicating a large effect size stated by Cohen (1988).

In Model 3, the interaction term between psychopathy, Machiavellianism, narcissism, short-term mating orientation, long-term mating orientation, and sociosexual behaviour (IV) and gender (moderator) on sexting behaviour (DV) were added, resulting in a non-statistically significant model, $F(13, 169) = .874$, $p = .516$, $R^2 = .338$, adjusted $R^2 = .287$. Specifically, when introducing the interaction item, all the independent variables became not significant with the result of Machiavellianism ($\beta = .181$, $p = .171$), psychopathy ($\beta = -.051$, $p = .622$), narcissism ($\beta = -.130$, $p = .324$), short-term mating orientation ($\beta = -.086$, $p = .448$), long-term mating orientation ($\beta = -.174$, $p = .146$), sociosexual behaviour ($\beta = .002$, $p = .989$). Although, the result revealed that Model 3 explained 33.8% of the variance, accounting for a slightly higher variance than Model 2 with the ΔR^2 of .021. signified that adding the interaction terms did not significantly improve the model. Thus, this implied that gender did not moderate the relationships between these variables and sexting behaviour among emerging adults. The effect size for this model was large, which is .51, according to Cohen (1988). Interestingly, in Model 3, after introducing interaction terms between the independent variables and gender, long-term mating orientation became a significant predictor of sexting behaviour ($\beta = .244$, $p = .047$) compared to Model 2 ($\beta = .107$, $p = .218$).

Overall, in the study, gender did not moderate the association between all the independent variables and sexting behaviour. Hence, moderation analysis using Hayes SPSS Process Macro (Model 1) was not proceeded, and the H_{3a}, H_{3b}, H_{3c}, H_{3d}, H_{3e}, and H_{3f} were not supported.

Table 4.7

Results of Hierarchical Multiple Linear Regression Analysis

Variable	Model 1			Model 2			Model 3		
	SE	*β*	*p*	*SE*	*β*	*p*	*SE*	*β*	p
Gender	1.130	.286***	$< .001$	1.052	.187*	.005	1.057	.181*	.007
Machiavellianism				.745	.067	.478	1.051	-.089	.504
Psychopathy				.774	.386***	$< .001$	1.048	.492***	$< .001$
Narcissism				.604	-.131	.087	.829	-.099	.347
Short-term Mating Orientation				.644	.218**	.008	.981	.310*	.013
Long-term Mating Orientation				.686	.107	.218	.966	.244*	.047
Sociosexual behaviour				.670	.040	.637	.910	.030	.796
Machiavellianism X Gender							1.532	.181	.171
Psychopathy X Gender							1.223	-.051	.622
Narcissism X Gender							1.577	-.130	.324
Short-term Mating Orientation X							1.321	-.086	.448

Gender					
Long-term Mating Orientation X Gender			1.393	-.174	.146
Sociosexual behaviour X Gender			1.372	.002	.989
R^2	.082		.317		.338
$Adj.R^2$	.077		.290		.287
ΔR^2	.082***		.235***		.021
F	16.176***		11.628***		6.637***
df	(1, 181)		(7, 175)		(13, 169)

Note. SE = standard error; β = Beta; * $p < .05$; ** $p < .01$; *** $p < .001$

Summary of Results

Table 4.8

Hypotheses	Decision
H_{1a}: Short-term mating orientation is positively correlated with sexting behaviour.	Supported
H_{1b}: Long-term mating orientation is positively correlated with sexting behaviour.	Not supported
H_{1c}: Sociosexual behaviour is positively correlated with sexting behaviour.	Supported
H_{1d}: Narcissism is positively correlated with sexting behaviour.	Not supported
H_{1e}: Machiavellianism is positively correlated with sexting behaviour.	Supported
H_{1f}: Psychopathy is positively correlated with sexting behaviour	Supported

H_2: Mating orientations (short-term mating orientation, long-term mating orientation, and sociosexual behaviour) and dark triad personality traits (narcissism, Machiavellianism, and psychopathy) significantly predicted sexting behaviour among emerging adult samples.	Not supported
H_{3a}: Gender moderates the relationship between short-term mating orientation and sexting behaviour.	Not supported
H_{3b}: Gender moderates the relationship between long-term mating orientation and sexting behaviour.	Not supported
H_{3c}: Gender moderates the relationship between sociosexual behaviour and sexting behaviour.	Not supported
H_{3d}: Gender moderates the relationship between narcissism and sexting behaviour.	Not supported
H_{3e}: Gender moderates the relationship between Machiavellianism and sexting behaviour.	Not supported
H_{3f}: Gender moderates the relationship between psychopathy and sexting behaviour.	Not supported

Chapter 5

Discussion and Conclusion

This chapter discusses the research questions explored in the current study, drawing on insights from past research. It also addresses theoretical and practical implications, limitations, and suggestions for future research.

Discussion

Level of sexting behaviour

This study aimed to identify the level of sexting behaviour among emerging adults of both genders in Malaysia. The results of the study concluded that the level of sexting behaviour of the targeted population was at a moderate level, which is above average but however, does not signify any addictive characteristics. The results were consistent with the findings by Mori et al. (2020), where the researchers found that sexting is a common behaviour among the emerging adult population, with a prevalence rate of 47.7% for reciprocal sexting. This neither extremely common nor rare results indicated that emerging adults in Malaysia might engage in sexting under certain contexts, including considering cultural norms, personal beliefs, educated awareness and so on. For example, Malaysia, being a less open-minded country, might not practise sexting or openly discuss sexual topics, perceiving such acts as something improper or inappropriate. There might be possibilities where people disengage in sexting in order to avoid discrimination or negative feedback from others, indicating a lower acceptance of sexting in this context. Nonetheless, people still use digital platforms as a place to express their sexual desires and needs, in view of different motives.

Mating orientation and sexting behaviour

The present study hypothesised that mating orientation, specifically short-term mating orientation, is positively correlated with sexting behaviour among emerging adults in Malaysia. The result from this study was consistent with Pholarz's (2017) findings, in which the researcher claimed that short-term mating orientation is positively associated with sexting behaviour. Sexting is used as a mating strategy in finding a potential partner while an individual competes with others via their physical appearance and sexual availabilities. Sexting, which involves the exchange of sexually explicit messages, photos, or videos via digital platforms, aligns with the goals of short-term mating orientation by facilitating quick and potentially anonymous sexual interactions. Thus, it serves as a tool for these individuals to express their sexual interests, communicate desires, and facilitate the coordination of casual sexual encounters.

Similarly, the result in this study was also compatible with Vrangalova and Ong's (2014) findings, where individuals with a preference for short-term mating reported higher levels of sexting behaviour, viewing it as a strategy for sexual expression and partner selection. This could be understood by the normalized online dating platforms and hookup culture for casual sexual encounters and thus further facilitated the exchange of sexual messages and images between consenting adults, reinforcing the association between short-term mating orientation and sexting behaviour.

In contrast, the results based on the study showed that long-term mating orientation is negatively correlated with sexting behaviours, which was inconsistent with past findings. Long-term mating orientation is defined as an individual's preference for committed and enduring relationships, with great emphasis on emotional intimacy and compatibility rather than immediate sexual gratification (Simpson & Gangestad, 1991). Thus, restricted individuals might prioritize more qualities, including loyalty, trustworthiness, effective

communication skills and others, namely the emotional connection in their romantic relationships (Simpson & Gangestad, 1991). Literature stated that long-term oriented individuals applied sexting as a means to boost or enhance a specific relationship, as well as to avoid infidelity in the relationship (Ploharz, 2017). However, the current findings shed light on the opposite perspective, where long-term oriented individuals might think of sexting as something incongruent with their relationship goals and values.

The negative correlation found between long-term mating orientation and sexting indicated a lack of inclination towards sexting as the means of expressing sexual intimacy or interest, like perceiving sexting as incongruent or inappropriate towards their relationship goals and values (Drouin et al., 2013). Besides, these individuals may be more cautious about sharing intimate or explicit content openly on online platforms where their privacy and confidentiality might be at risk (Weisskirch & Delevi, 2011). These individuals might value the authenticity and sincerity of in-person interactions over virtual exchanges, while sexting might conflict with these values as it could be perceived as something inconsistent with the commitment and exclusivity desired in long-term relationships. That said, long-term mating orientation is negatively correlated with sexting behaviour. As such, these findings underscore the importance of responsible sexting practices and the nuanced dynamics of sexting behaviour with long-term mating orientation.

According to the results found in this study, sociosexual behaviour is positively correlated with sexting behaviours among emerging adults in Malaysia. For instance, the findings of this study were in agreement with the findings by Weisskirch and Delevi (2011), where individuals who scored higher in sociosexual aspects were reported to have more frequent sexting behaviours. Hence, this implied that individuals might find a broader comfort regarding sexual expressions through online communication platforms, increasing the possibility for online sexting behaviours. Individuals with a more unrestricted sociosexual

orientation tend to be more open to casual sex, with a greater number of sexual partners, and engage in behaviours such as casual flirting and speed-dating (Corbin et al., 2016). However, sociosexual behaviour is said to encompass a broad range of attitudes and behaviours related to sexuality and interpersonal relationships.

Individuals with a more unrestricted sociosexual orientation tend to be more open to casual sex, with a greater number of sexual partners, and engage in behaviours such as casual flirting and speed-dating (Corbin et al., 2016). This association might reflect the expression of sexuality and intimacy via digital communication platforms, as well as a greater willingness to engage in sexual interactions with various partners. They tend to view sexting as a natural extension of their sexual expression, allowing them to explore fantasies, desires, and interests in a digital context. Hence, this increases their tendencies to engage in sexual activities with ease, specifically sexting.

Dark triad personality traits and sexting

The researchers hypothesized that narcissism is positively correlated with sexting behaviour (March & Wagstaff, 2017; Morelli et al., 2021). However, in the present study, the results found that there was a non-significant correlation between narcissism and sexting behaviour among emerging adults in Malaysia, which initially appeared counterintuitive given the common perception of narcissistic individuals as seeking attention and validation (Hernández et al., 2021). Nevertheless, some literature offered nuanced insights that helped elucidate this unexpected result. Baumeister et al. (2000) suggested that narcissists might have exhibited distress and externalizing behaviours in response to ego threats, such as not receiving likes or encountering negative comments. This ego threat could have triggered defensive mechanisms aimed at restoring their wounded self-esteem. In the context of sexting, where responses from others might vary, and feedback would not always be positive, narcissistic individuals might have been particularly vulnerable to ego threats, leading them

to avoid or engage less frequently in such behaviours to shield themselves from potential rejection or criticism.

Apart from that, Liu and Zheng (2020) pointed out that a domain-specific measure of narcissism assessing the activated cognitive components of narcissism in sexual situations, namely sexual narcissism, had a stronger association with sexting behaviour compared to general narcissism. Sexual narcissism encompasses self-centred sexual behaviours such as entitlement, exploitation, lack of empathy, and overestimation of sexual skills (Widman & McNulty, 2009). Their research emphasized that sexual narcissism exhibited a stronger association with sexting behaviour compared to general narcissism. This underscored the importance of considering specific facets of narcissism that were particularly relevant in sexual interactions. Individuals high in sexual narcissism might be more inclined to engage in sexting as a means of asserting control, seeking admiration, or bolstering their self-image in sexual contexts.

Furthermore, Mischel and Shoda's (1995) proposition that narcissism might predict overt sexual behaviour only in specific contexts aligned with this notion. In Malaysia, societal norms and cultural values often shape individuals' attitudes and behaviours, particularly concerning sexuality. Unlike in some Western cultures, where overt displays of sexuality may be more accepted or even encouraged, Malaysian society tends to adopt a more conservative approach to sexual expression (Sarpal et al., 2018). This cultural backdrop significantly influences how individuals navigate and engage in sexual behaviours, including sexting. Emerging adults in Malaysia are likely to be influenced by these societal expectations, which may affect the manifestation of their personality traits, such as narcissism, and their propensity for engaging in sexting behaviour. Therefore, when examining the relationship between narcissism and sexting behaviour among emerging adults

in Malaysia, it becomes essential to consider the cultural context and its impact on individual behaviour.

The study's findings indicate a positive correlation between Machiavellianism and sexting behaviour among the participants, which aligns with previous studies (March & Wagstaff, 2017; Morelli et al., 2021). sexting allows Machiavellian individuals to exert control over others (Book et al., 2015). Through sexually explicit communication, they can manipulate the emotions, desires, and behaviours of their recipients, strategically influencing their perceptions and actions. By leveraging sexting as a tool for manipulation, Machiavellian individuals seek to establish dominance and superiority over their counterparts, reinforcing their sense of power and control in interpersonal interactions.

Next, examining the cultural context is crucial, particularly in Malaysia, where societal norms and cultural values may discourage overtly manipulative behaviours (Lim et al., 2024). In such an environment where Machiavellian behaviours may be less socially acceptable, individuals might resort to alternative means, such as sexting, to exert control and assert dominance within their social networks. Machiavellian individuals may perceive sexting as an opportunity to enhance their social status and reputation (Morelli et al., 2021). Within certain social circles or online communities, proficiency in sexting can equate to desirability, attractiveness, or popularity. Actively engaging in sexting exchanges, Machiavellian individuals seek peer validation and admiration, thereby bolstering their perceived social standing and prestige. Through strategic involvement in sexting, they cultivate their image and assert influence within their social sphere, consolidating their dominance and authority. In short, the study underscores the correlation between Machiavellianism and sexting behaviour, revealing how individuals strategically utilize sexting as a means of manipulation to assert dominance, particularly in cultural contexts where such behaviours may be less socially acceptable, like in Malaysia.

Thirdly, the study indicated a positive relationship between psychopathy and sexting behaviour among emerging adults in Malaysia, consistent with prior research (Bilal et al., 2022; March & Wagstaff, 2017; Morelli et al., 2021). Psychopathy encompassed characteristics such as impulsivity, thrill-seeking, and a lack of empathy, which predisposed individuals to engage in risky behaviours, including sexting (Chan & Beech, 2024; Morelli et al., 2021). The impulsive tendencies inherent in psychopathic individuals often lead them to pursue immediate gratification and excitement, disregarding potential long-term consequences. Furthermore, their diminished capacity for empathy exacerbated this behaviour as they failed to fully consider the impact of their actions on others (Morelli et al., 2021). In the context of sexting, a behaviour that offered the opportunity for instant gratification and validation, psychopathic individuals were particularly drawn to its allure. Sexting provided psychopathic individuals with an outlet to indulge in their thrill-seeking behaviour, actively seeking out novel and stimulating experiences that temporarily alleviated boredom or restlessness. The inherent excitement and validation associated with sexting satisfied their desire for immediate gratification, reinforcing their impulsive tendencies. Additionally, the anonymity afforded by digital communication platforms amplified the appeal of sexting for psychopathic individuals. Online interactions provided a sense of detachment and perceived immunity from consequences, emboldening psychopathic individuals to engage in risky behaviours without fear of accountability (Parti et al., 2022). They viewed digital platforms as a safe space where they could act without restraint or repercussion, as the absence of face-to-face interaction diminished feelings of guilt or remorse. This anonymity fostered a sense of liberation for psychopathic individuals, empowering them to exploit others for their gratification without concern for potential harm inflicted.

In conclusion, the study supported the hypothesis that hypothesised psychopathy is positively correlated with sexting behaviour among emerging adults in Malaysians, which emphasises the need for targeted interventions to mitigate the negative consequences associated with sexting among individuals with psychopathic tendencies. Understanding these dynamics is crucial for addressing the risks that might posed by sexting behaviour and promoting healthier online interactions among emerging adults.

Mating orientation, dark triad personality triad, and sexting behaviour

The current study hypothesised that mating orientation (short-term mating orientation, long-term mating orientation, sociosexual behaviour) and dark triad personality (narcissism, Machiavellianism, psychopathy) significantly predicted sexting behaviour among emerging adults in Malaysia. However, it was found that among all the variables, only short-term mating orientation and psychopathy personality trait significantly predicted sexting behaviour, with psychopathy personality trait being the most influential factor.

This could be understood as short-term oriented individuals tend to be more unrestricted by traditional culture or gender norms, having a greater openness to casual sexual encounters and seek excitement in immediate sexual gratifications. Thus, this would greatly maximize their engagement in sexting behaviours (Vrangalova & Ong, 2014). On the contrary, long-term oriented individuals might hold onto the view that sexting is an inappropriate act that counteracts with their relationship values and beliefs, coupled with the cautiousness of online threats and privacy risks to share explicit personal information online. Similarly, sociosexual behaviours were said to encompass a broader range of attitudes and behaviours related to sexual openness and promiscuity, which may not necessarily align with the specific motivations and preferences driving sexting behaviour. Therefore, the focused nature of short-term mating orientation, with its emphasis on immediate sexual satisfaction, might lead to a stronger predictive relationship with sexting behaviour.

In view of dark triad personalities, among the three main sub-domains, only psychopathy personality trait significantly predicted sexting behaviours, which might be attributed to the specific characteristics associated with psychopathy that facilitate engagement in risky and exploitative behaviours. Psychopathy is characterized by traits such as impulsivity, sensation-seeking, and the lack of empathy (Jones & Paulhus, 2014), which can manifest in a disregard for societal norms and the manipulation of others for personal gain. Individuals high in psychopathy might have a greater likelihood to engage in sexting as a means of fulfilling their immediate desires for sexual stimulation, excitement, and control, without considering the potential consequences for themselves or others. On the other hand, narcissism and Machiavellianism, although also associated with manipulative and self-centred tendencies, may not directly align with the impulsive and risk-taking characteristic of sexting. Narcissists may be more focused on seeking admiration and validation rather than engaging in risky sexual behaviours, while Machiavellians may prioritize strategic planning and manipulation in pursuit of their goals, which may not always involve sexting as a preferred method of interaction. Therefore, the specific combination of traits associated with psychopathy, including impulsivity and a lack of empathy, might make psychopathic individuals more prone to engage in sexting behaviours compared to individuals high in narcissism or Machiavellianism.

In conclusion, examining the relationship between mating orientation, dark triad personality traits, and sexting behaviours in Malaysian emerging adults is essential for tailoring culturally sensitive interventions, moderating risks associated with sexting, and promoting healthy relationship dynamics and sexual health. By identifying predictors of sexting behaviour, policymakers and educators can develop targeted prevention programs to address these issues effectively. In an overall perspective, studying this linkage facilitates the

development of evidence-based strategies to support the well-being of Malaysian emerging

adults in the digital age.

Gender not a significant moderator

This study's findings indicated that gender had no moderating effects on mating

orientation and dark triad personality traits. For example, Western findings have often found

disparities in gender regarding mating orientation and sexting behaviour, where men have

greater tendencies in sexting with short-term mating orientation (Drouin et al., 2013;

Weisskirch & Delevi, 2011). Even so, such findings may be unsuitable to generalize to other

cultural contexts like Malaysia, where socio-cultural norms and gender roles may differ

significantly. In other words, this challenges traditional gender stereotypes and highlights the

need to consider cultural variations in understanding sexual behaviour and communication

patterns (Ridgeway, 2011). According to the Social Role Theory, societal expectations and

norms are pivotal in shaping individuals' behaviours and social attitudes, leading to gender

discrepancies in the expected feminine and masculine roles (Eagly & Wood, 2016). In

Malaysia, this theory suggests that individual values, cultural beliefs and preferences may

influence the impact of mating orientation on sexting. This allows them to engage in sexting

based on their personal intentions and socio-cultural setting rather than the strict adherence to

traditional gender roles. Furthermore, in coherence with the advancement of technology,

society evolves and develops into something more egalitarian, resulting in more varied

expressive behaviours across genders.

On top of that, the sexual strategies theory proposed by Buss and Schmitt (2016)

provides a better understanding in terms of how mating orientation and sexting behaviour is

not bounded by gender. The sexual strategies theory postulates that individuals employ

different mating strategies (short-term mating orientation and long-term mating orientation)

based on their evolutionary goals of maximizing reproductive success, where genetic

diversity and reproductive opportunities are maximized for short-term mating strategies,

enduring partnerships and parental investment are emphasised for long-term mating

strategies. Irrespective of gender, individuals who are short-term oriented are expected to be

more inclined towards engaging in sexting to initiate or enhance casual sexual encounters.

Similarly, individuals who are long-term oriented are less likely to engage in sexting as they

prioritize committed and enduring relationships that are focused on emotional intimacy. In

other words, the theory proposes that evolutionary imperatives rather than gender-specific

expectations drive the underlying motivations for mating.

On top of that, the hypotheses proposed in this study suggested that gender would

moderate the relationships between Machiavellianism, narcissism, psychopathy, and sexting

behaviour. However, the results indicated that gender did not significantly moderate these

relationships. The Five-Factor Model (FFM) provides a comprehensive framework for

understanding individual differences in personality, encompassing five broad dimensions:

extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience

(Widiger & Crego, 2019). In the context of sexting behaviour, individuals with traits

associated with the dark triad personality traits (narcissism, psychopathy, and

Machiavellianism) might exhibit unique patterns of behaviour that differ across genders. For

instance, individuals high in narcissism may seek validation and attention through sexting,

while those high in psychopathy may engage in sexting as a means of gratifying their thrill-

seeking tendencies, regardless of gender. Additionally, individuals with high levels of

narcissistic traits tend to exhibit extraverted behaviours, perceive themselves as extroverts,

and show a negative relationship with agreeableness, potentially due to their lack of concern

for other's opinions and feelings (Gómez-Leal et al., 2024). However, the lack of significant

moderation by gender in the relationships between the Dark Triad traits and sexting

behaviour suggests that these traits may have a similar impact on sexting behaviour across

genders. These finding challenges traditional gender stereotypes and underscores the need to consider individual differences in personality when examining sexting behaviour.

In short, the relationship between mating orientation and sexting behaviour among emerging adults in Malaysia is not moderated by gender, as individuals of both genders are expected to employ mating strategies based on universal evolutionary goals rather than conforming blindly to traditional gender roles. Individuals with similar mating orientations may exhibit comparable levels of sexting behaviour, regardless of their gender expectations. While the FFM provides valuable insights into the role of personality in sexting behaviour, the lack of significant moderation by gender suggests that the influence of dark triad personality traits on sexting behaviour may transcend gender differences. By examining these factors within a comprehensive framework, the researchers can gain a deeper understanding of the complex dynamics underlying sexting behaviour among emerging adults.

Theoretical Implications

The study's results provided empirical support for the use of the sexual strategies theory (Buss & Schmitt, 2016) and personality theory (Palmer et al., 2020), to explain the linkage between mating orientation (short-term mating orientation, long-term mating orientation, sociosexual behaviours), dark triad personality traits (narcissism, Machiavelliniasm, psychopathy) and sexting behaviour, specifically in the context of Malaysia, where the society is conservatively-bounded in terms of sexual topics. However, this study found different results that only aligned partially with the proposed theories, thus, providing new insights into the direction of the study on the targeted variables.

The results of this study partially support the use of the sexual strategies theory in outlining how mating orientation can positively predict sexting behaviour among emerging adults in the local sample, particularly for short-term mating orientation and sociosexual behaviours. However, the results shed light on an opposite direction for long-term mating orientation on sexting behaviours. According to the sexual strategies theory, long-term oriented individuals pursue mating strategies that maximize their reproductive success, building and maintaining emotional intimacy and commitment in a romantic relationship are their primary goals. In this context, long-term mating-oriented individuals may perceive sexting as incongruent with their mating goals and relationship preferences. Sexting, often associated with casual or short-term sexual encounters, may be viewed as potentially undermining the emotional intimacy and commitment central to long-term partnerships. Furthermore, they may perceive sexting as risky in terms of privacy and relational consequences, potentially jeopardizing the stability and security of their long-term partnerships. In other words, this could also be explained from the cultural context, where In Malaysia, conservative cultural norms and religious values often emphasize modesty, privacy, and traditional gender roles, which may influence individuals' attitudes and behaviours

related to sexting. Thus, sexting might be perceived as something inappropriate and less accepted in close-minded cultures where people are concerned about the negative discrimination or evaluations by others. In cultural settings with a rich diversified background, traditional gender roles might intersect with modern technological advancements and alter the presentation of individuals' sexual expressions. Moreover, the results of this study were consistent with the findings by Baumeister and Vohs (2004), where mating strategies are not strictly bounded by gender but vary according to individuals' personal preferences and the socio-cultural context in which they are positioned.

Besides, Malaysia has strict laws governing obscenity and public morality, which may discourage individuals from participating in sexting due to the potential legal repercussions as well. On the other hand, individuals with a long-term mating orientation reiterates the importance of forming committed relationships characterized by emotional intimacy and trust. So, sexting behaviours might be perceived as incongruent with their relationship values, thus making them less likely to engage in sexting (Buss & Schmitt, 2016). Considerably, the topic of sociosexual behaviours has been vastly studied on, with outdated literature and insufficient research regarding its various dimensions and aspects, including attitudes toward casual sex, openness to short-term sexual encounters, and desire for sexual variety (Simpson & Gangestad, 1991). Additionally, the fear of social consequences, such as damage to reputation or relationships, may further dissuade individuals from engaging in sexting behaviours. Thus, the usage of the sexual strategies theory may be less culturally sensitive calls for future studies to consider culture in shaping individuals' beliefs, values, behaviours, and perceptions. Then, incorporating cultural considerations can enhance the validity, reliability, and applicability of research findings across diverse populations.

In addition, the Five-Factor Model (FFM) in the personality theory substantially supported the framework for the positive connection between psychopathy and

Machiavellianism in predicting sexting behaviour among emerging adults in Malaysia. On the contrary, the results of the study provided new findings on the connection between dark triad personality traits, particularly narcissism personality traits and sexting behaviour. The factors that might contributed to such discrepancies may be due to their concern for reputation. Engaging in sexting contains social risks that might be detrimental to their carefully cultivated images and reputations. For example, past findings concluded that narcissistic individuals are very sensitive to social feedback and actively avoid behaviours that may lead to negative evaluations from others (Back et al., 2010). Hence, the potential social consequences and harm towards their reputation may deter sexting behaviour if they perceive this behaviour to be socially stigmatizing and morally questionable. Thus, this sheds light onto the consideration of influential factors like social discrimination and culture norms that puts narcissists' ego and esteem at stake when they engage in sexting behaviours.

In conclusion, the current findings provide pragmatic evidence in highlighting the phenomenon of sexting and its associated factors specifically in the Malaysian context. Undeniably, the justifications made upon comparison with past findings may possibly help in reducing negative stereotypes and opinions regarding sexting, thus healthily increasing public awareness on this topic. With that being said, the effort of the study also contributes to the limited literature to local studies on this sensitive issue of sexting, while underlining the important considerations for future directions in terms of culture sensitivity.

Practical Implications

The present study strengthens the knowledge of the public in developing a more precise understanding of the interplay of the selected key variables, namely mating orientations, dark triad personalities and sexting behaviour. Coupled with the increasing openness and versatility of the modern world, sexual conversations take place more frequently than expected, and society may have different perspectives on sexual topics

accordingly society may have different perspectives on sexual topics according to modern cultural norms. In other words, there is an increased importance on positive talk regarding sexting, like how sexting can be utilised as an intimate and exciting platform to enhance romantic relationships. For example, individuals are encouraged to communicate openly and authentically regarding their fantasies and desires with their partners, while mutual pleasure and enjoyment ought to be celebrated through their sexting interactions. By promoting sexting in healthy and positive ways, individuals can engage in consensual, respectful, and enjoyable sexual communication while minimizing risks and maximizing benefits associated with digital sexual interactions. Other than that, proper education of sexting must be conducted appropriately and efficiently via extensive sex education that includes information on healthy communication, legal consent and boundaries, and the risks and benefits of sexting.

Based on the findings of the study, short-term mating orientations and sociosexual behaviours are essential associators of sexting behaviour among emerging adults in Malaysia. Thus, this highlights the importance of intervention programs regarding sex education and effective communicative ways for partners, not solely to increase sex education but also to minimize the negative setbacks of sexting like online fraud, legal crimes, risky sexual behaviours and so on. As short-term mating orientation, individuals are unrestricted and have a greater tendency to engage in sociosexual behaviours, the authorities concerned ought to promote and implement interventive measures that educate individuals on safe sex practices, anti-fraud awareness regarding sexual scams, practical knowledge on legal concerns and issues. Similarly, the result of this study indicates the importance of interventions targeting psychopathic individuals engaged in sexting behaviours. Mental health professionals can provide support to psychopathic individuals through tailored interventions like

psychoeducation, cognitive-behavioural therapy (CBT), social skills training, harm reduction strategies and counselling services.

Limitation

When considering the study's findings, it is important to recognize certain limitations that might have influenced the accuracy and applicability of the results. Firstly, the limited scope of predictors examined in relation to sexting behaviour. While the study only examined the associations between mating orientations (short-term mating orientation, long-term mating, and sociosexual behaviour) and dark triad personality traits (narcissism, Machiavellianism, and psychopathy) with sexting behaviour, it is essential to acknowledge that these variables represent only a subset of potential predictors. Sexting behaviour is multifaceted and influenced by a wide range of individual, interpersonal, and contextual factors, which were not fully captured in our study.

Another limitation of our study concerned the restricted age range of our participants, who were exclusively emerging adults aged 18 to 29 in Malaysia. While this age range encompassed a significant portion of the young adult population, it might not fully represent the diversity of individuals engaging in sexting behaviour. Sexting behaviour could occur among individuals both younger and older than the specified age range, encompassing adolescents transitioning into adulthood as well as individuals in their late twenties and beyond. By limiting our sample to emerging adults aged 18 to 29, the researchers may overlook important variations in sexting behaviour and associated factors among younger and older age groups. Adolescents, for instance, might navigate sexting within the context of developing romantic relationships and peer dynamics, whereas older adults might engage in sexting for reasons related to established relationships and personal fulfilment.

The last limitation of the study was the use of a cross-sectional design, which involved collecting data at a single point in time. While cross-sectional studies provide

valuable insights into associations between variables, they are limited in their ability to establish causality or infer temporal relationships. The study assessed the relationship between dark triad personality traits, mating orientation, and sexting behaviour simultaneously, preventing the researchers from determining the directionality of these relationships or identifying potential causal mechanisms.

Furthermore, the cross-sectional design limited the ability to account for potential changes in participants' mating orientation over time. Mating orientation, including strategies related to short-term mating (e.g., seeking casual sexual encounters) and long-term mating (e.g., seeking committed relationships), might influence individuals' attitudes and behaviours regarding sexting. However, the current study's cross-sectional nature precluded examining how changes in mating orientation may affect the relationship between dark triad traits and sexting behaviour over time.

Recommendations

To address the limitation of the study concerning the limited scope of predictors examined in relation to sexting behaviour, future researchers should aim to incorporate a broader range of predictor variables beyond mating orientations and dark triad personality traits. This could involve examining factors such as attachment styles, self-esteem, impulsivity, peer influences, cultural norms, and technology use patterns, which are the potential predictors that could influence sexting behaviour. By including a more diverse set of predictors, researchers can capture the complexity of sexting behaviour more comprehensively.

Next, to address the limitation of our study's restricted age range, it is recommended that future research adopts a more inclusive approach by broadening the age range of participants. Including individuals from diverse age groups, such as adolescents, young adults, and older adults, would provide a more comprehensive understanding of sexting

behaviour across the lifespan. Specifically, researchers could recruit participants ranging from early adolescence to late adulthood to capture the developmental and contextual factors shaping sexting practices at various life stages. This approach would enable researchers to explore how sexting behaviour evolves from adolescence into adulthood and how it may vary in older age groups. Additionally, investigating the dark triad personality trait, mating orientation, motivations, attitudes, and consequences of sexting behaviour among different age cohorts would contribute to tailored interventions and educational initiatives targeting specific age demographics. By embracing a lifespan perspective, future research can better inform policies and interventions aimed at promoting healthy sexual behaviours and mitigating the potential risks associated with sexting across diverse age groups.

To address the third limitation, future research could employ longitudinal or experimental designs to examine changes in sexting behaviour, dark triad traits, and mating orientation over time and further explore causal relationships between these variables. Longitudinal studies enable researchers to track participants' behaviours and traits longitudinally across different time points. By collecting data at multiple time points, researchers can better capture the dynamics of sexting behaviour, dark triad personality traits, and mating orientation over time, allowing for a more comprehensive understanding of how these factors evolve and interact. This longitudinal approach would also facilitate examining potential causal relationships between these variables, shedding light on the temporal sequencing of changes and providing insights into potential mechanisms underlying their associations.

Conclusion

In conclusion, this study achieved the research objectives regarding sexting behaviour among emerging adult samples and its associations with mating orientations and dark triad personality traits. The present study provided valuable insights into the complex interplay of

psychological factors underlying sexting behaviour. Firstly, the study identified that the level of sexting behaviour among our sample of emerging adults was at a moderate level. This suggested that while sexting might be prevalent among this demographic, it does not necessarily reach a level of compulsive behaviour. Secondly, the study analysis revealed significant associations between mating orientations and sexting behaviour, particularly in long-term mating orientation, which showed a negative correlation with sexting. This indicated that individuals who prefer long-term relationships may perceive sexting as incongruent with their relationship values, thus engaging in it less frequently.

Regarding dark triad personality traits, the current findings demonstrated a significant association between psychopathy, Machiavellianism and sexting behaviour, whereas narcissism did not show significant correlations. This suggests that individuals high in psychopathy may be more inclined to engage in sexting for various reasons, including manipulation, personal gratification, and personal advantage. Additionally, the study analysis highlighted the role of low agreeableness, a trait associated with Machiavellianism, in contributing to manipulative and exploitative behaviours such as sexting.

Furthermore, the present study identified short-term mating orientation and psychopathy as predictors for sexting behaviour among emerging adults, emphasizing the importance of considering individual differences in mating preferences and personality traits when studying sexting behaviour. Lastly, the investigation into gender as a moderator did not yield significant results, indicating that gender may not be significant in moderating the relationships between mating orientations, dark triad personality traits, and sexting behaviour among emerging adults in Malaysia samples.

In short, this study contributes to understanding the psychological factors influencing sexting behaviour. It emphasizes the need for further research to explore the nuanced dynamics of sexting within the context of individual differences and socio-cultural factors.

Understanding these factors is essential for developing effective interventions and educational strategies aimed at promoting healthy sexual behaviours among emerging adults.

References

Adigun, O. T. (2020). Some psychosocial determinants of cyber-intimate image diffusion: A cross-sectional study among in-school deaf adolescents. *Pertanika Journal of Social Sciences and Humanities, 28*(4). https://doi.org/10.47836/pjssh.28.4.07

Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, *16*(2), 270–301. https://doi.org/10.1177/1094428112470848

Aisyah, S., Nabilah, N., Raof, A., Nordin, N., Yusof, J., & Shahrin, R. (2022). Effect of dark triad personality on cyberbullying behavior among Malaysian university students. *The Eurasia Proceedings of Educational & Social Sciences (EPESS), 25*, 26-44. http://www.epess.net/en/download/article-file/2721830

American Psychological Association. (2012). Guidelines for psychological practice with lesbian, gay, and bisexual clients. *American Psychologist*, *67*(1), 10–42. https://doi.org/10.1037/a0024659

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

Arsad, F., Abdul Khani, M., & Daud, F. (2021). A systematic review of immersive social media activities and risk factors for sexual boundary violations among adolescents. *IIUM Medical Journal Malaysia, 20*(1). https://doi.org/10.31436/imjm.v20i1.1766

Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, *21*(3), 372–374. https://doi.org/10.1177/0956797609360756

Baumeister, R. F., Bushman, B. J., & Campbell, W. K. (2000). Self-Esteem, narcissism, and

aggression. *Current Directions in Psychological Science*, *9*(1), 26–29.

https://doi.org/10.1111/1467-8721.00053

Baumeister, R. F., & Vohs, K. D. (2004). Sexual economics: Sex as female resource for social

exchange in heterosexual interactions. *Personality and Social Psychology Review*,

8(4), 339–363. https://doi.org/10.1207/s15327957pspr0804_2

Bianchi, D., Baiocco, R., Lonigro, A., Pompili, S., Zammuto, M., Di Tata, D., ... & 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

Bilal, A., Nadeem, A., & Saleem, M. (2022). Cyber-psychopathy trait as predictor of

cybersex addiction among university students. *Pakistan Journal of Humanities and

Social Sciences*, *10*(1), 20–28. https://doi.org/10.52131/pjhss.2022.1001.0170

Bianchi, D., Morelli, M., Baiocco, R., & Chirumbolo, A. (2019). Individual differences and

developmental trends in sexting motivations. *Current Psychology*, *40*(9).

https://doi.org/10.1007/s12144-019-00398-4

Book, A., Visser, B. A., & Volk, A. A. (2015). Unpacking "evil": Claiming the core of the

dark triad. *Personality and Individual Differences*, *73*, 29–38.

https://doi.org/10.1016/j.paid.2014.09.016

Brewer, G., & Abell, L. (2017). Machiavellianism, relationship satisfaction, and romantic

relationship quality. *Europe's Journal of Psychology*, *13*(3), 491–502.

https://doi.org/10.5964/ejop.v13i3.1217

Buss, D. M., & Schmitt, D. P. (2016). Sexual strategies theory. *Encyclopedia of Evolutionary

Psychological Science*, 1–5. https://doi.org/10.1007/978-3-319-16999-6_1861-1

Buss, M. D., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100*(2), 204-232. doi:10.1037/0033-295X.100.2.204

Chan, H. C., & Beech, A. (2024). Risky sexual behavior and psychopathy: Testing the relationship in a non-clinical sample of young adults in Hong Kong. *Behavioral Sciences*, *14*(2), 94–94. https://doi.org/10.3390/bs14020094

Clancy, E. M., Klettke, B., & Hallford, D. J. (2019). 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

Clemente, M., & Espinosa, P. (2021). Revenge in couple relationships and their relation to the dark triad. *International Journal of Environmental Research and Public Health*, *18*(14), 7653. https://doi.org/10.3390/ijerph18147653

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Confalonieri, E., Cuccì, G., Olivari, M. G., Parise, M., Borroni, E., & Villani, D. (2020). What are you sexting? Parental practices, sexting attitudes and behaviors among Italian adolescents. *BMC Psychology*, *8*(1). https://doi.org/10.1186/s40359-020-00425-1

Corbin, W. R., Scott, C. J., & Treat, T. A. (2016). Sociosexual attitudes, sociosexual behaviors, and alcohol use. *Journal of Studies on Alcohol and Drugs*, *77*(4), 629–637. https://doi.org/10.15288/jsad.2016.77.629

Courtice, E. L., & Shaughnessy, K. (2017). Technology-mediated sexual interaction and relationships: A systematic review of the literature. *Sexual and Relationship Therapy*, *32*(3-4), 269–290. https://doi.org/10.1080/14681994.2017.1397948

Courtice, E. L., & Shaughnessy, K. (2021). Four problems in sexting research and their solutions. *Sexes, 2*(4), 415–432. https://doi.org/10.3390/sexes2040033

Coutts, J. J., & Hayes, A. F. (2022). Questions of value, questions of magnitude: An exploration and application of methods for comparing indirect effects in multiple mediator models. *Behavior Research Methods*. https://doi.org/10.3758/s13428-022-01988-0

Dębska, M., Dębski, P., Polechoński, J., Rozpara, M., & Tomik, R. (2021). The dark triad of personality in the context of health behaviors: Ally or enemy? *International Journal of Environmental Research and Public Health, 18*(8), 4113. https://doi.org/10.3390%2Fijerph18084113

DeShong, H. L., Helle, A. C., Lengel, G. J., Meyer, N., & Mullins-Sweatt, S. N. (2017). Facets of the dark triad: Utilizing the five-factor model to describe machiavellianism. *Personality and Individual Differences*, *105*, 218–223. https://doi.org/10.1016/j.paid.2016.09.053

Devi, B., Devi, R., Pradhan, S., Giri, D., Lepcha, N., & Basnet, S. (2022). Application of correlational research design in nursing and medical research. *Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/Journal of Xi'an Shiyou University*, *65*(11). http://dx.doi.org/10.17605/OSF.IO/YRZ68

Dir, A. (2012). Understanding sexting behaviors, sexting expectancies, and the role of impulsivity in sexting behaviors (postgraduate). *Purdue University*. http://www.purdue.edu/policies/pages/teach_res_outreach/c_22.html

Drouin, M., Vogel, K. N., Surbey, A., & Stills, J. R. (2013). Let's talk about sexting, baby: Computer-mediated sexual behaviors among young adults. *Computers in Human Behavior*, *29*(5), A25–A30. https://doi.org/10.1016/j.chb.2012.12.030

Eagly, A. H., & Wood, W. (2016). *Social role theory of sex differences*. Northwestern

    Scholars. https://www.scholars.northwestern.edu/en/publications/social-role-theory-

    of-sex-differences

Ekolu, S. O., & Quainoo, H. (2019). Reliability of assessments in engineering education

    using Cronbach's alpha, KR and split-half methods. *Global journal of engineering

    education, 21*(1), 24-29.

    http://www.wiete.com.au/journals/GJEE/Publish/vol21no1/03-Ekolu-S.pdf

El-Masri, M. M., Mowbray, F. I., Fox-Wasylyshyn, S. M., & Kanters, D. (2020). Multivariate

    outliers: A conceptual and practical overview for the nurse and health researcher.

    Canadian Journal of Nursing Research, *53*(3), 316–321.

    https://doi.org/10.1177/0844562120932054

Fajardo, G., Polo, P., Muñoz-Reyes, J. A., & Rodríguez-Sickert, C. (2022). Long-term mating

    orientation in men: The role of socioeconomic status, protection skills, and

    parenthood disposition. *Frontiers in Psychology*, *13*.

    https://doi.org/10.3389/fpsyg.2022.815819

Ferreiros, L., & Clemente, M. (2022). Dark personality and intimate partner relationships in

    young adults. *Acta Psychologica*, *225*, 103549.

    https://doi.org/10.1016/j.actpsy.2022.103549

Foody, M., Kuldas, S., Sargioti, A., Mazzone, A., & O'Higgins Norman, J. (2023). Sexting

    behaviour among adolescents: Do friendship quality and social competence matter?

    Computers in Human Behavior, *142*, 107651.

    https://doi.org/10.1016/j.chb.2023.107651

Garcia, D., & González Moraga, F. R. (2017). The dark cube: Dark character profiles and

    OCEAN. *PeerJ*, *5*, e3845. https://doi.org/10.7717/peerj.3845

Gassó, A., Klettke, B., Agustina, J., & Montiel, I. (2019). Sexting, mental health, and

victimization among adolescents: A literature review. *International Journal of

Environmental Research and Public Health*, *16*(13), 2364.

https://doi.org/10.3390/ijerph16132364

Goh, P. H., Koh, I. Y. S., Piyadigama, D. S., & Yong, K. M. (2023). Loneliness and

relationship dispositions in emerging adults: Gender and culture as

moderators. *Personal Relationships*. https://doi.org/10.1111/pere.12488

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

Gómez-Leal, R., Fernández-Berrocal, P., María José Gutiérrez-Cobo, Cabello, R., &

Megías-Robles, A. (2024). The dark tetrad: Analysis of profiles and relationship with

the big five personality factors. *Scientific Reports*, *14*(1).

https://doi.org/10.1038/s41598-024-55074-w

Hernández, M. P., Schoeps, K., Maganto, C., & Montoya-Castilla, I. (2021). The risk of

sexual-erotic online behavior in adolescents – Which personality factors predict

sexting and grooming victimization? *Computers in Human Behavior*, *114*, 106569.

https://doi.org/10.1016/j.chb.2020.106569

Hogan, R., & Sherman, R. A. (2020). Personality theory and the nature of human nature.

Personality and Individual Differences, *152*, 109561.

https://doi.org/10.1016/j.paid.2019.109561

Ibrahim Murtala Aminu, & Mohd Noor Mohd Shariff. (2014). Strategic orientation, access to

    finance, business environment and smes performance in nigeria: Data screening and

    preliminary analysis. *European Journal of Business and Management*, *6*(35), 124–

    131.

    https://www.researchgate.net/publication/347691618_Strategic_Orientation_Access_t

    o_Finance_Business_Environment_and_SMEs_Performance_in_Nigeria_Data_Scree

    ning_and_Preliminary_Analysis

Jackson, J. J., & Kirkpatrick, L. A. (2007). The structure and measurement of human mating

    strategies: Toward a multidimensional model of sociosexuality. *Evolution and Human*

    Behavior, *28*(6), 382–391. https://doi.org/10.1016/j.evolhumbehav.2007.04.005

Jackson, J. J., & Kirkpatrick, L. A. (2007). The structure and measurement of human mating

    strategies: Toward a multidimensional model of sociosexuality. *Evolution and Human*

    Behavior, 28(6), 382–391. https://doi.org/10.1016/j.evolhumbehav.2007.04.005

Jeanfreau, M. M., Holden, C., Wright, L. E., & Thompson, R. (2021). Personality and

    sexting: The relationship between sexting behaviors, sexting expectations, and the big

    five. *The Family Journal*, 106648072110007.

    https://doi.org/10.1177/10664807211000721

Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark

    triad. *Psychological Assessment*, *22*(2), 420–432. https://doi.org/10.1037/a0019265

Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3). *Assessment*,

    21(1), 28–41. https://doi.org/10.1177/1073191113514105

Jones, D. N., & Weiser, D. A. (2014). Differential infidelity patterns among the dark triad.

    Personality and Individual Differences, *57*, 20–24.

    https://doi.org/10.1016/j.paid.2013.09.007

Kim, T. K., & Park, J. H. (2019). More about the basic assumptions of t-test: Normality and sample size. *Korean Journal of Anesthesiology*, *72*(4), 331–335. https://doi.org/10.4097/kja.d.18.00292

Koehn, M. A., & Jonason, P. K. (2018). Costs of short-term mating for women. *Springer EBooks*, 1–6. https://doi.org/10.1007/978-3-319-16999-6_3662-1

Lim , M., Shin , L. W., Chin , C. Y., Ka , S. L., & Yang, T. T. (2024). The decline in intentions to stop watching pornography among young adults. *Sexual and Relationship Therapy*, 1–18. https://doi.org/10.1080/14681994.2024.2304673

Liu, Y., & Zheng, L. (2020). Relationships between the big five, narcissistic personality traits, and online sexual activities. *Personality and Individual Differences*, *152*, 109593. https://doi.org/10.1016/j.paid.2019.109593

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

Maes, C., & Vandenbosch, L. (2022). Physically distant, virtually close: Adolescents' sexting behaviors during a strict lockdown period of the COVID-19 pandemic. *Computers in Human Behavior*, *126*, 107033. https://doi.org/10.1016/j.chb.2021.107033

Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the pilot study: A neglected part of the research process? Methodological findings supporting the importance of piloting in qualitative research studies. *International Journal of Qualitative Methods*, *18*(1), 1–11. https://doi.org/10.1177/1609406919878341

March, E., & Wagstaff, D. L. (2017). Sending nudes: Sex, self-rated mate value, and trait machiavellianism predict sending unsolicited explicit images. *Frontiers in Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.02210

Marume, A., Maradzika, J., & January, J. (2018). Adolescent sexting and risky sexual

behaviours in Zimbabwe: A cross-sectional study. *Sexuality & Culture*, *22*(3), 931–

941. https://doi.org/10.1007/s12119-018-9508-4

Matotek, L., Howard, D., Clancy, E. M., Fuelscher, I., & Klettke, B. (2021). Sexting and

relationship satisfaction among emerging adults: Dispelling the myth. *Sexuality &

Culture*, *25*(4). https://doi.org/10.1007/s12119-021-09832-x

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed

methods and choice based on the research. *Perfusion*, *30*(7), 537–542.

https://doi.org/10.1177/0267659114559116

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality:

Reconceptualizing situations, dispositions, dynamics, and invariance in personality

structure. *Psychological Review*, *102*(2), 246–268. https://doi.org/10.1037/0033-

295x.102.2.246

Mitchell, K. J., Finkelhor, D., Jones, L. M., & Wolak, J. (2011). Prevalence and

characteristics of youth sexting: A national study. *Pediatrics*, *129*(1), 13–20.

https://doi.org/10.1542/peds.2011-1730

Morelli, M., Plata, M. G., Isolani, S., Zabala, M. E. Z., Hoyos, K. P. C., Tirado, L. M. U., ...

& Baiocco, R. (2023). Sexting behaviors before and during COVID-19 in Italian and

Colombian young adults. *Sexuality Research and Social Policy*, 1-13.

https://doi.org/10.1007/s13178-023-00798-z

Morelli, M., Urbini, F., Bianchi, D., Baiocco, R., Cattelino, E., Laghi, F., ... & Chirumbolo,

A. (2021). The relationship between dark triad personality traits and sexting behaviors

among adolescents and young adults across 11 countries. *International journal of

environmental research and public health, 18*(5), 2526.

https://doi.org/10.3390/ijerph18052526

Mori, C., Cooke, J. E., Temple, J. R., Ly, A., Lu, Y., Anderson, N., Rash, C., & Madigan, S.

(2020). The prevalence of sexting behaviors among emerging adults: A meta-analysis.

Archives of Sexual Behavior, *49*. https://doi.org/10.1007/s10508-020-01656-4

Mowbray, F. I., Fox-Wasylyshyn, S. M., & El-Masri, M. M. (2018). Univariate outliers: A

conceptual overview for the nurse researcher. *Canadian Journal of Nursing Research*,

51(1), 31–37. https://doi.org/10.1177/0844562118786647

Muris, P., Merckelbach, H., Otgaar, H., & Meijer, E. (2017). The malevolent side of human

nature: A meta-analysis and critical review of the literature on the dark triad

(narcissism, machiavellianism, and psychopathy). *Perspectives on psychological*

science, 12(2), 183-204. https://doi.org/10.1177/1745691616666070

Naing, L., Nordin, R. B., Abdul Rahman, H., & Naing, Y. T. (2022). Sample size calculation

for prevalence studies using scalex and scalar calculators. *BMC Medical Research*

Methodology, *22*(1). https://doi.org/10.1186/s12874-022-01694-7

Norain, M., Norliza, A., & Nor, A. M. Z. (2023). Intrinsic and extrinsic factors associated

with sexting behavior among young people: A systematic review. *Malaysian Journal*

of Public Health Medicine, 23(1), 42–56.

https://doi.org/10.37268/mjphm/vol.23/no.1/art.1485

Orille, A. C. (2020). Sociosexual behavior. *Springer EBooks*, 1–3.

https://doi.org/10.1007/978-3-319-47829-6_474-1

Palmer, J. C., Holmes Jr, R. M., & Perrewé, P. L. (2020). The cascading effects of CEO dark

triad personality on subordinate behavior and firm performance: A multilevel

theoretical model. *Group & Organization Management, 45*(2), 143-180.

https://doi.org/10.1177/1059601120905728

Parti, K., Sanders, C. E., & Englander, E. K. (2022). Sexting at an early age: Patterns and poor health-related consequences of pressured sexting in middle and high school. *Journal of School Health*, *93*(1). https://doi.org/10.1111/josh.13258

Patrick, K., Heywood, W., Pitts, M. K., & Mitchell, A. (2015). Demographic and behavioural correlates of six sexting behaviours among Australian secondary school students. *Sexual Health, 12*(6), 480. https://doi.org/10.1071/sh15004

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, machiavellianism, and psychopathy. *Journal of Research in Personality*, *36*(6), 556–563. https://doi.org/10.1016/s0092-6566(02)00505-6

Ploharz, S. (2017). *An evolutionary based examination of sexting behavior among college students*. https://doi.org/10.58809/hogd5986

Ragona, A., Mesce, M., Cimino, S., & Cerniglia, L. (2023). Motivations, behaviors and expectancies of sexting: The role of defensive strategies and social media addiction in a sample of adolescents. *International journal of environmental research and public health, 20*(3), 1805. https://doi.org/10.3390/ijerph20031805

Regmi, P. R., Waithaka, E., Paudyal, A., Simkhada, P., & Van Teijlingen, E. (2016). Guide to the design and application of online questionnaire surveys. *Nepal Journal of Epidemiology*, *6*(4), 640–644. https://doi.org/10.3126/nje.v6i4.17258

Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, *45*(2), 590. https://doi.org/10.2466/pr0.1979.45.2.590

Resett, S., Caino, P. G., & Mesurado, B. (2022). Emotional problems, dark personality, sexting and grooming in adolescents: The role of gender and age. *CES Psicología, 15*(2), 23-43. https://dx.doi.org/10.21615/

Ridgeway, C. L. (2011). *Framed by gender: How gender inequality persists in the modern world*. https://doi.org/10.1093/acprof:oso/9780199755776.001.0001

Sarpal, R., Saleh, R., Teck, T. S., Chia, K. M., & Yee, L. M. (2018). Literature review on the

use of sex appeal vs non-sex appeal advertising in the Malaysian context.

International Journal of Marketing Studies, *10*(2), 28.

https://doi.org/10.5539/ijms.v10n2p28

Sesar, K., & Arta Dodaj. (2019). Sexting and emotional regulation strategies among young

adults. *Mediterranean Journal of Clinical Psychology, 7*(1).

https://cab.unime.it/journals/index.php/MJCP/article/view/2008/pdf

Sexual Strategies Theory. (2016). Sexual strategies theory in social psychology - iresearchnet.

psychology. https://psychology.iresearchnet.com/social-psychology/social-

psychology-theories/sexual-strategies-

theory/#:~:text=Sexual%20strategies%20are%20the%20means

Shieh, G. (2010). On the misconception of multicollinearity in detection of moderating

effects: Multicollinearity is not always detrimental. *Multivariate Behavioral

Research*, *45*(3), 483–507. https://doi.org/10.1080/00273171.2010.483393

Shukor, S. A., & Osman, N. D. (2022). Sexting among children: Differences in law between

Malaysian, English, and American laws. *Asian Journal of Applied Communication*,

12(S1), 31–45. https://doi.org/10.47836/ajac.12.s1.04

Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American Journal of

Applied Mathematics and Statistics*, *8*(2), 39–42. https://doi.org/10.12691/ajams-8-2-1

Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality:

Evidence for convergent and discriminant validity. *Journal of Personality and Social

Psychology*, *60*(6), 870–883. https://doi.org/10.1037//0022-3514.60.6.870

Sparks, B., Stephens, S., & Trendell, S. (2023). Image-based sexual abuse: Victim-perpetrator overlap and risk-related correlates of coerced sexting, non-consensual dissemination of intimate images, and cyberflashing. *Computers in Human Behavior*, *148*, 107879. https://doi.org/10.1016/j.chb.2023.107879

Sullivan, G. M., & Feinn, R. (2012). Using effect size—Or why the p value is not enough. *Journal of Graduate Medical Education*, *4*(3), 279–282. https://doi.org/10.4300/JGME-D-12-00156.1

Tang, W. Y., Reer, F., & Quandt, T. (2020). Investigating sexual harassment in online video games: How personality and context factors are related to toxic sexual behaviors against fellow players. *Aggressive Behavior, 46*(1), 127-135. https://doi.org/10.1002/ab.21873

Tarik, M., & Kolenovic-Djapo, J. (2021). The dark triad of personality: Is psychopathy a good predictor of workplace stress? *Materia Socio-Medica*, *33*(2). https://doi.org/10.5455/msm.2021.33.100-104

Tavares, M. K. B., de Melo, R. L., da Rocha, B. F., Andrade, D. J., Evangelista, D. R., Peres, M. C., ... & Silva, J. B. N. (2020). Dating applications, sexual behaviors, and attitudes of college students in Brazil's legal Amazon. *International Journal of Environmental Research and Public Health, 17*(20), 7494. https://doi.org/10.3390%2Fijerph17207494

Tett, R. P., Toich, M. J., & Ozkum, S. B. (2021). Trait activation theory: A review of the literature and applications to five lines of personality dynamics research. *Annual Review of Organizational Psychology and Organizational Behavior*, *8*, 199-233. https://psycnet.apa.org/doi/10.1146/annurev-orgpsych-012420-062228

Thang, S. M., Lay, S. N., & M. Taha, A. (2020). Awareness of the risks and dangers of social

    networking: Exploration on four types of Malaysian secondary schools. *Jurnal*

    Komunikasi: Malaysian Journal of Communication, 36(1), 147–165.

    https://doi.org/10.17576/jkmjc-2020-3601-09

Timmermans, E., De Caluwé, E., & Alexopoulos, C. (2018). Why are you cheating on tinder?

    Exploring users' motives and (dark) personality traits. *Computers in Human Behavior*,

    89, 129–139. https://doi.org/10.1016/j.chb.2018.07.040

Tsoukas, A., & March, E. (2018). Predicting short- and long-term mating orientations: The

    role of sex and the dark tetrad. *The Journal of Sex Research*, *55*(9), 1206–1218.

    https://doi.org/10.1080/00224499.2017.1420750

Van Ouytsel, J., Van Gool, E., Walrave, M., Ponnet, K., & Peeters, E. (2016). Sexting:

    Adolescents' perceptions of the applications used for, motives for, and consequences

    of sexting. *Journal of Youth Studies*, *20*(4), 1–25.

    https://doi.org/10.1080/13676261.2016.1241865

Villacampa, C. (2017). Teen sexting: Prevalence, characteristics and legal treatment.

    International Journal of Law, Crime and Justice, 49, 10–21.

    https://doi.org/10.1016/j.ijlcj.2017.01.002

Vrangalova, Z., & Ong, A. D. (2014). Who benefits from casual sex? The moderating role of

    sociosexuality. *Social Psychological and Personality Science*, *5*(8), 883–891.

    https://doi.org/10.1177/1948550614537308

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and

    recommendations. *Chest*, *158*(1), 65–71. NCBI.

    https://doi.org/10.1016/j.chest.2020.03.012

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

Weisskirch, R. S., & Delevi, R. (2011). "Sexting" and adult romantic attachment. *Computers in Human Behavior*, *27*(5), 1697–1701. https://doi.org/10.1016/j.chb.2011.02.008

Widman, L., & McNulty, J. K. (2009). Sexual narcissism and the perpetration of sexual aggression. *Archives of Sexual Behavior*, *39*(4), 926–939. https://doi.org/10.1007/s10508-008-9461-7

Widiger, T. A., & Crego, C. (2019). The five factor model of personality structure: An update. *World Psychiatry*, *18*(3), 271–272. https://doi.org/10.1002/wps.20658

Appendix

Appendix A

Ethical Clearance

UNIVERSITI TUNKU ABDUL RAHMAN *DU012(A)*
Wholly owned by UTAR Education Foundation *Co. No. 578227-M*

Re: U/SERC/326/2023

21 December 2023

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 project from Bachelor of Social Science (Honours) Psychology programme enrolled in course UAPZ3013/UAPZ3023. We are pleased to inform you that the application has been approved under <u>Expedited Review</u>.

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Dark Triad Personality and Public Acceptance of Homosexuals Among Malaysian Adults: Interdependent Self-Construal as a Moderator	1. Muriel Wong Jie Chee 2. See Tong Shin	Dr Tan Soon Aun	21 December 2023 – 20 December 2024
2.	Mating Orientation and Dark Triad Personality on Sexting Behaviour: A Comparative Study Between Male and Female Emerging Adults in Malaysia	1. Lee Yih Wen 2. Tong Kher Sze		
3.	Relationship Between Public Mental Health Stigma, Mental Health Literacy, and Help-seeking Behaviour Among Adults in Malaysia	1. Chan Ming Chen 2. Chew Jia Xin 3. Lilian Soh Li-Ern	Dr Ooh Seow Ling	
4.	The Relationship Between Fear of Missing, Social Media Flow Experience and Social Media Addiction Among University Students in Malaysia	1. Ng Jing Wen 2. See Rou Yee 3. Vooi Hao Zheng		
5.	Relationship Between Intolerance of Uncertainty, Mindfulness, and Social Anxiety	1. Ch'ng Zer Swen 2. Wong Jin Yau 3. Yaw Suet Kuan		

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 B

Pearson Correlation

Mating Orientation

Ploharz, S. (2017). *An Evolutionary Based Examination of Sexting Behavior Among College*

Students. https://doi.org/10.58809/hogd5986

Sexting Behaviors and Mating Strategy Correlations for Men	
Sending	
Sending a text requesting sex	0.27*
Sending picture in revealing clothes	0.35**
Sending picture in underwear	0.27*
Sending picture while partially clothed	0.37**
Sending picture while nude	0.34**
Receiving	
Receiving a text requesting sex	0.30**
Receiving picture of someone in revealing clothes	0.40**
Receiving picture of someone in underwear	0.41**
Receiving picture while partially clothed	0.40**
Receiving picture of someone nude	0.46**

Note. 1 tailed significance **p<.01; * p<.05

Sexting Behaviors and Mating Strategy Correlations for Women	
Sending	
Sending a text requesting sex	0.25**
Sending picture in revealing clothes	0.30**
Sending picture in underwear	0.29**
Sending picture while partially clothed	0.29**
Sending picture while nude	0.17*
Receiving	
Receiving a text requesting sex	0.26**
Receiving picture of someone in revealing clothes	0.32*
Receiving picture of someone in underwear	0.26**
Receiving picture while partially clothed	0.20**
Receiving picture of someone nude	0.20**

Note. 1 tailed significance **p<.01; * p<.05

Dark Triad Personality

Morelli, M., Urbini, F., Bianchi, D., Baiocco, R., Cattelino, E., Laghi, F., ... & Chirumbolo,

A. (2021). The relationship between dark triad personality traits and sexting behaviors

among adolescents and young adults across 11 countries. *International journal of*

environmental research and public health, 18(5), 2526.

https://doi.org/10.3390/ijerph18052526

	1	2	3	4	5	6	7	8	9	M	SD
1.Biological Sex	1									==	==
2.Age	−0.02	1								20.35	3.63
3. Machiavellianism	0.14 **	−0.02	1							3.39	2.00
4. Psychopathy	0.18 **	0.04 **	0.58 **	1						2.85	1.76
5. Narcissism	0.08 **	0.05 **	0.55 **	0.39 **	1					4.42	2.19
6. Own sext	0.01	0.05 **	0.17 **	0.11 **	0.11 **	1				1.23	0.44
7.Risky sexting [a]	0.08 **	0.05 **	0.28 **	0.22 **	0.15 **	0.55 **	1			1.28	0.51
8. Non-consensual sexting [b]	0.11 **	−0.05 **	0.12 **	0.16 **	0.05 **	0.65 **	0.51 **	1		1.08	0.33
9. Sexting under pressure [c]	0.09 **	−0.02	0.17 **	0.19 **	0.10 **	0.40 **	0.53 **	0.52 **	1	1.14	0.45

Note 1: ** $p < 0.01$. Biological sex was coded as 0 = girls and 1 = boys. [a] Correlations for risky sexting were run on a subsample of 5788 participants; [b] Correlations for non-consensual sexting were run on a subsample of 4983 participants; [c] Correlations for sexting under pressure were run on a subsample of 4704 participants.

Appendix C

Calculation of Effect Size

Mating Orientation

$r = 0.306$

Dark Triad Personality (machiavellianism)

$r = 0.185$

Dark Triad Personality (psychopathy)

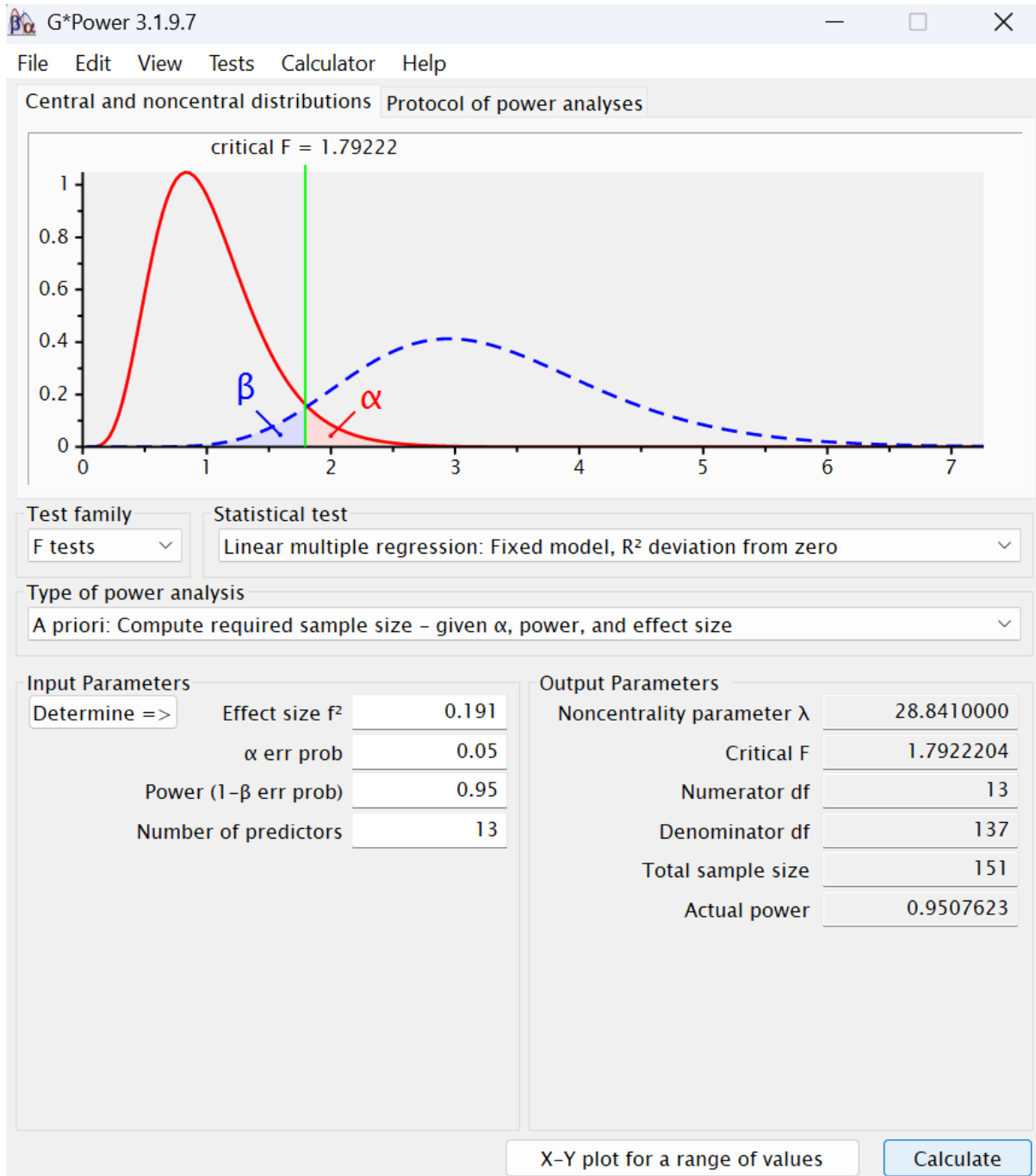$r = 0.17$

Dark Triad Personality (narcissism)

$r = 0.103$

Total average effect size

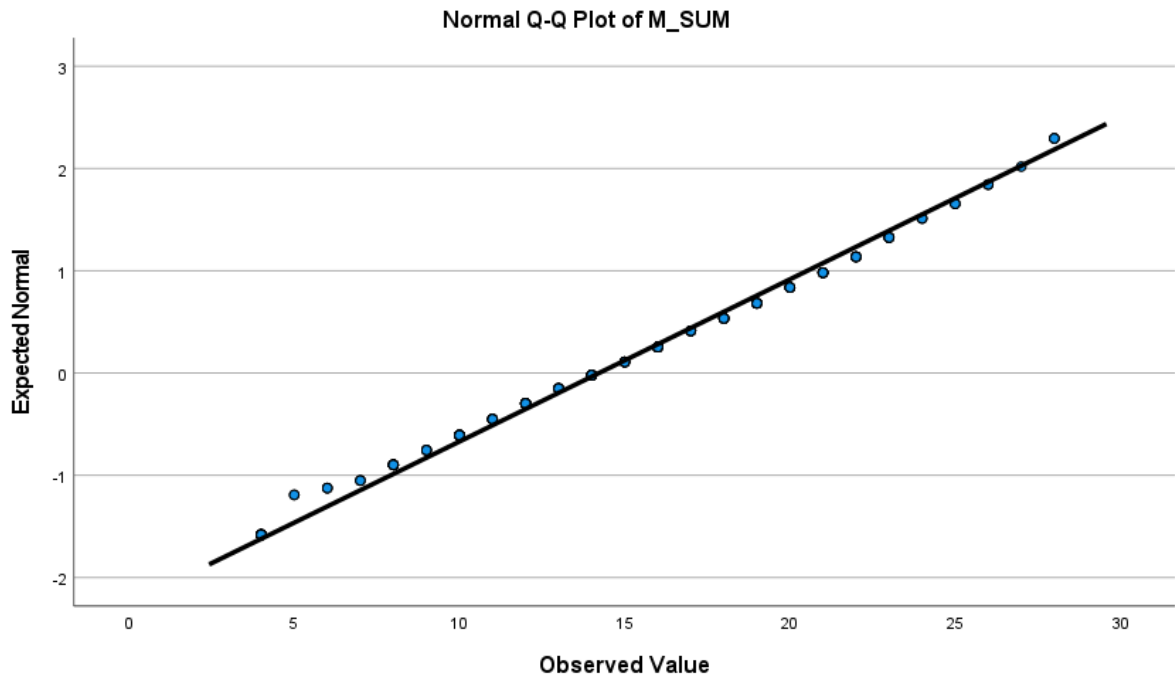$$= \frac{0.306 + 0.185 + 0.17 + 0.103}{4}$$

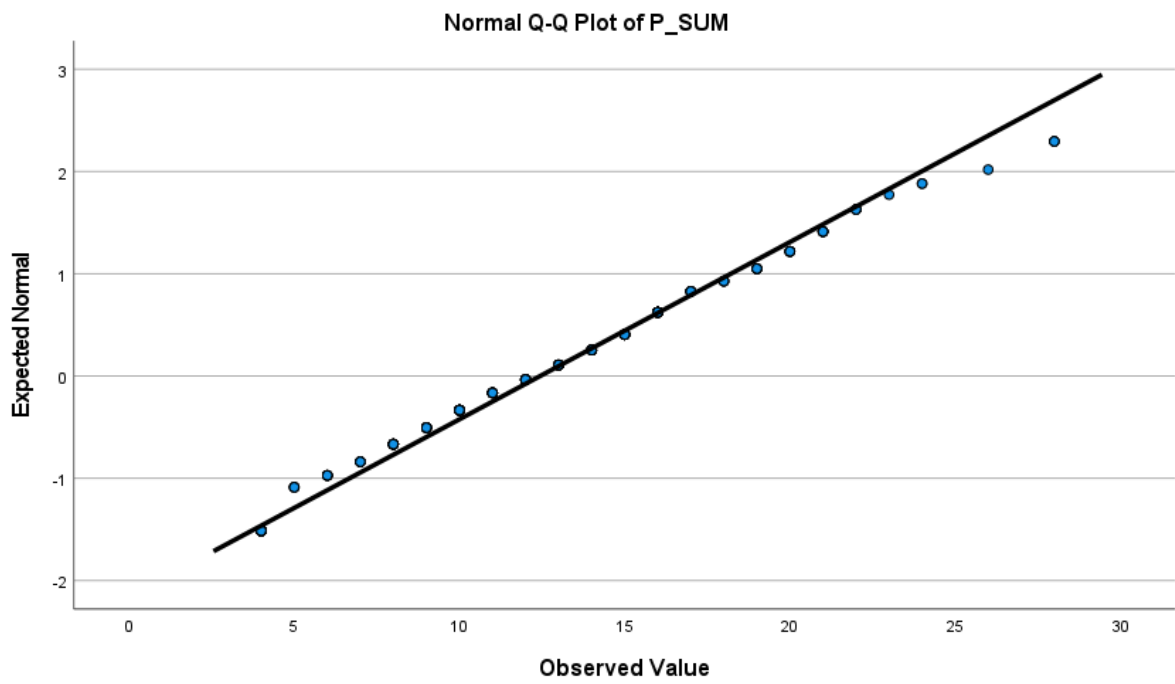$= 0.191$

Appendix D

Sample Size Generated by G-Power
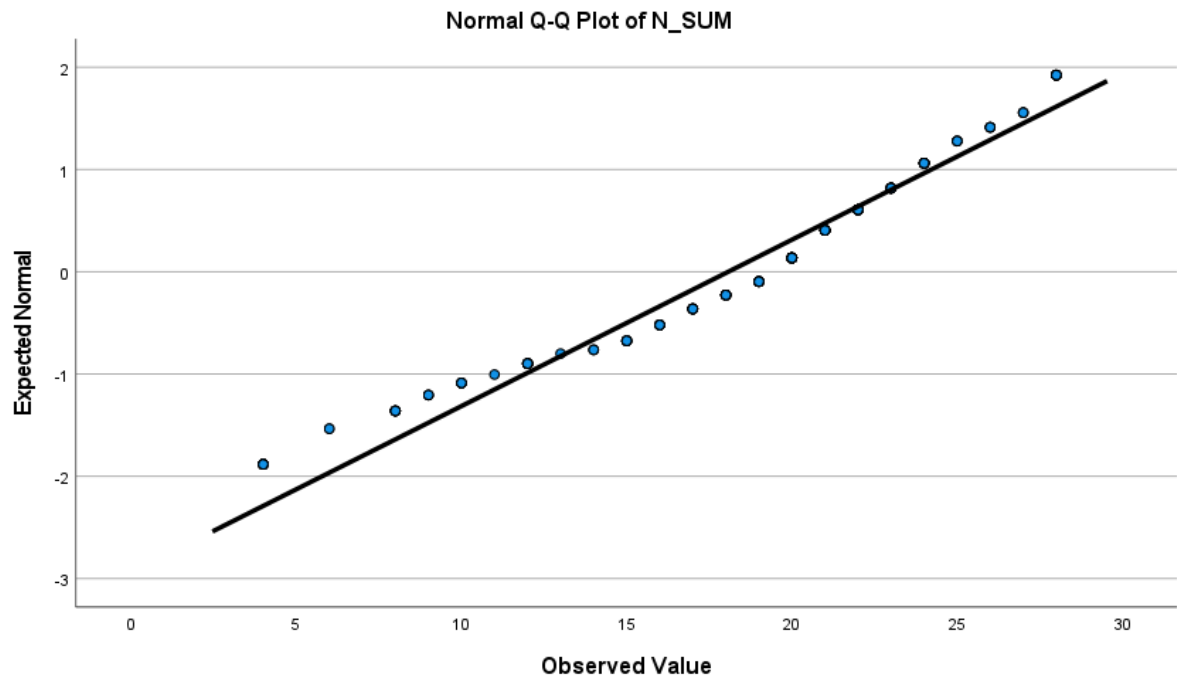
Appendix E

Q- Q plot for each variables

Machiavellianism

Normal Q-Q Plot of M_SUM

Psychopathy

Normal Q-Q Plot of P_SUM

Narcissism

Normal Q-Q Plot of N_SUM

Short-term Mating Orientation

Normal Q-Q Plot of ST_SUM

Long-term Mating Orientation

Normal Q-Q Plot of LT_SUM

Sociosexual Behaviour

Normal Q-Q Plot of S_SUM

Sexting Behaviour

Normal Q-Q Plot of SB_SUM

Appendix F

Histogram for each variables
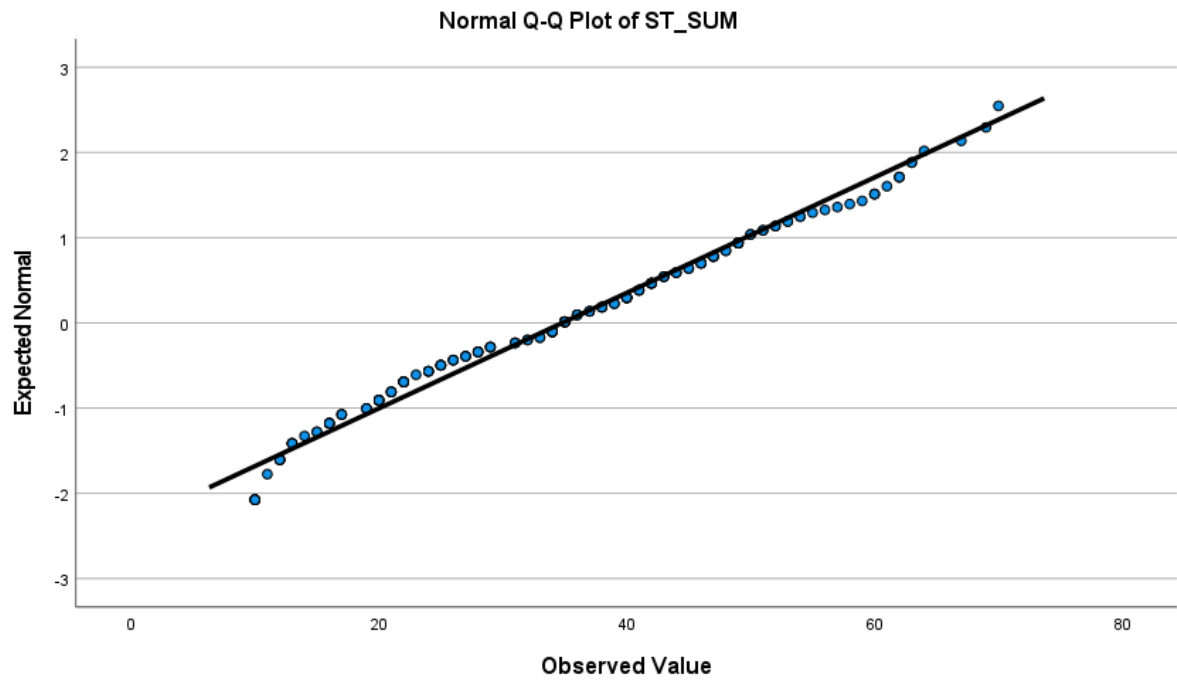
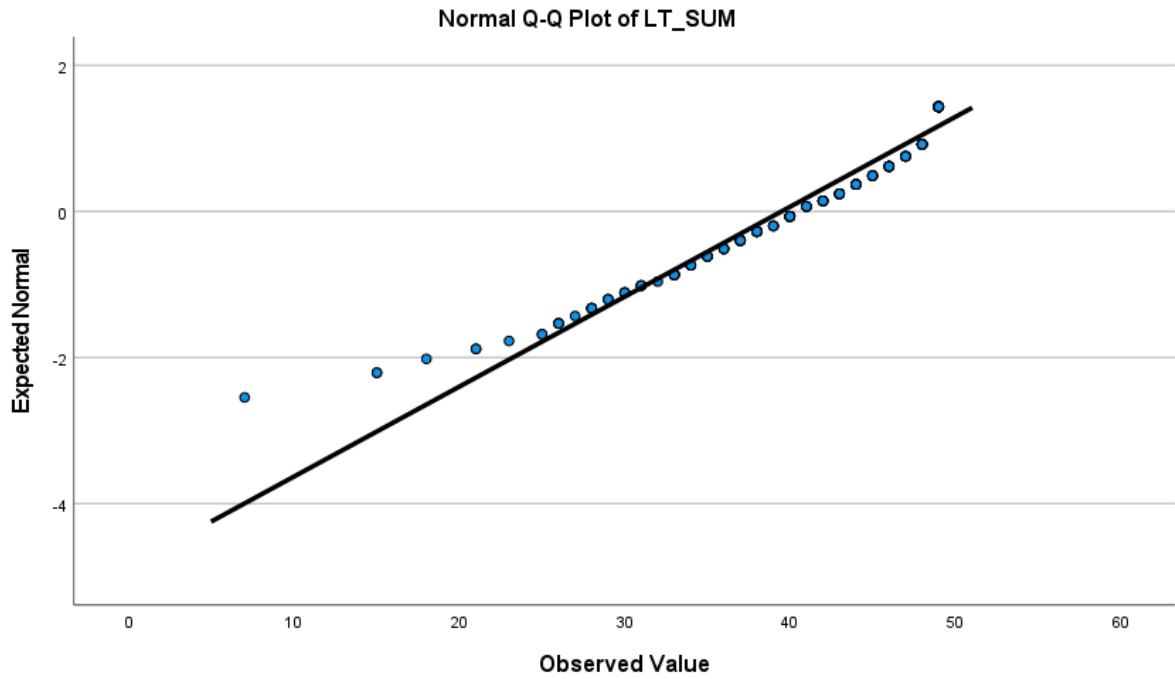## Machiavellianism

Psychopathy

Narcissism

Short-term Mating Orientation

Long-term Mating Orientation
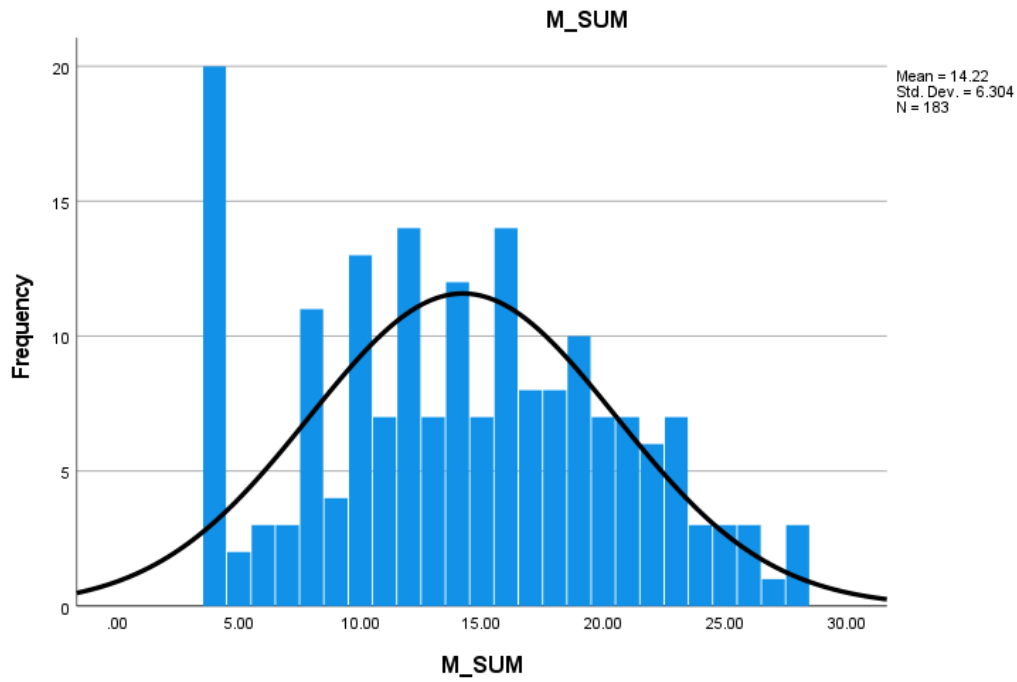
Sociosexual Behaviour
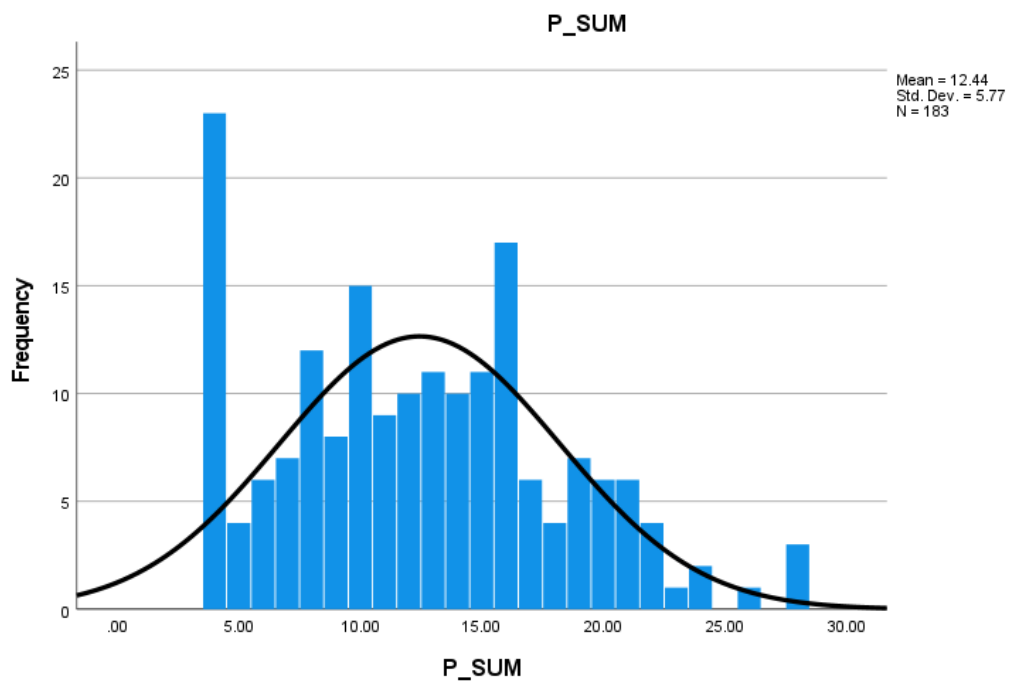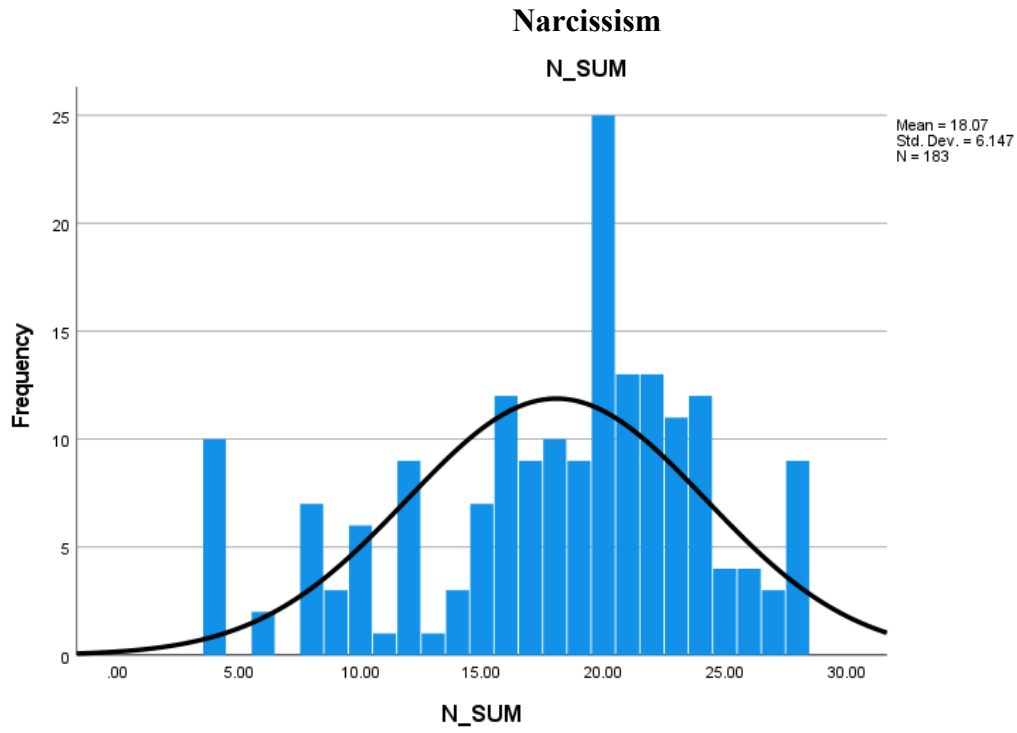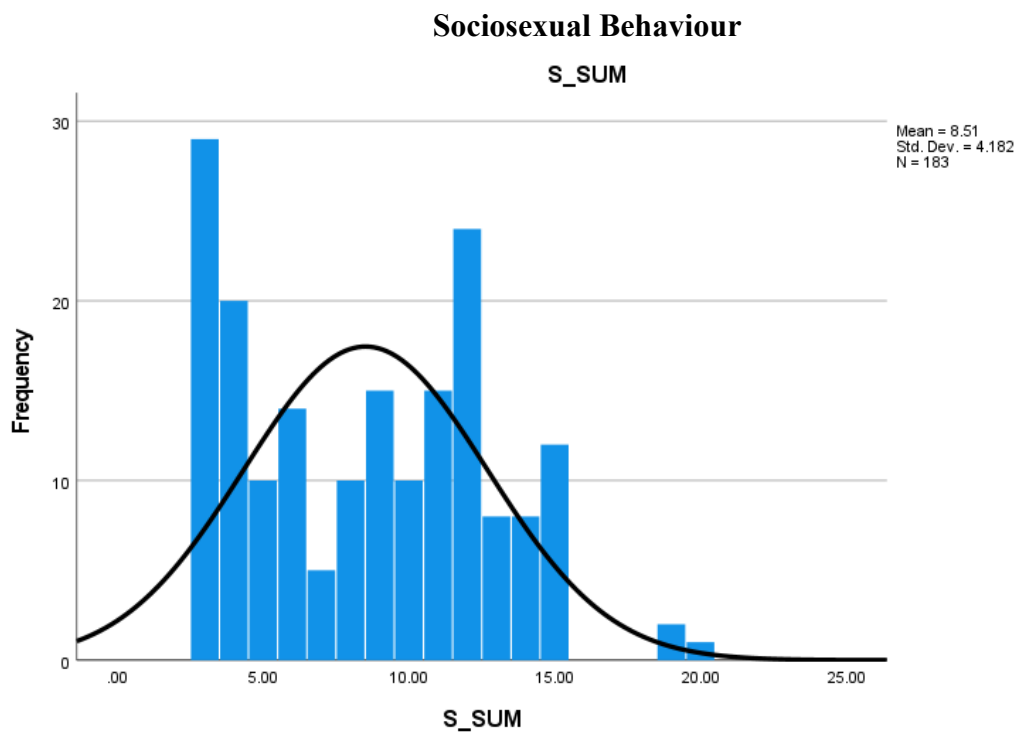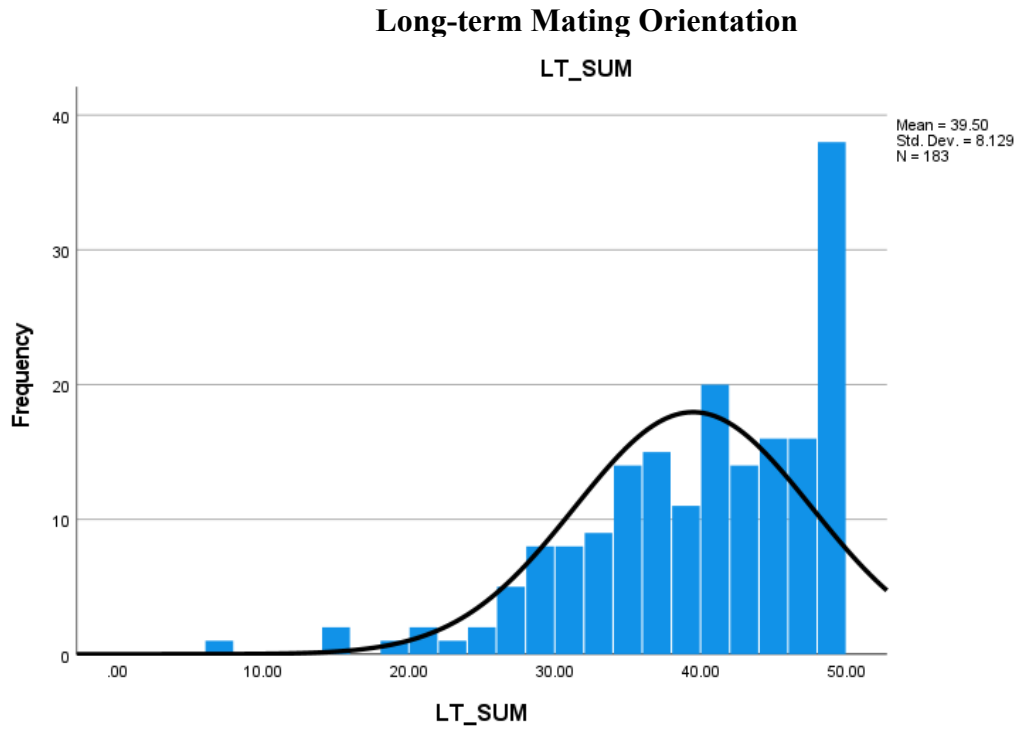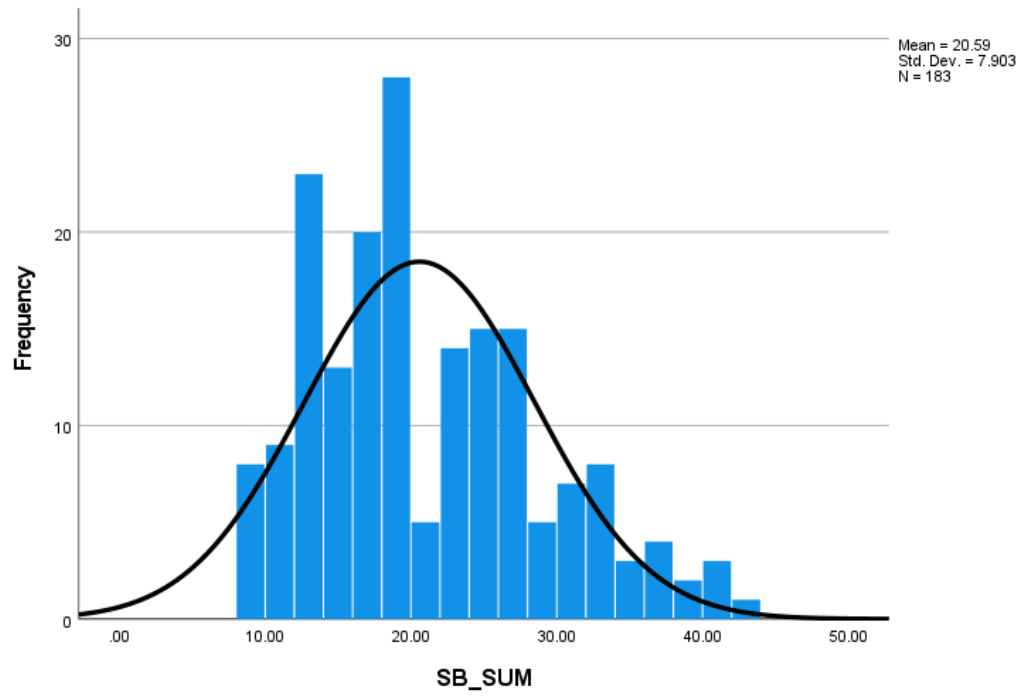
Sexting Behaviour

Appendix G

Outlier : Box-plot for each variables
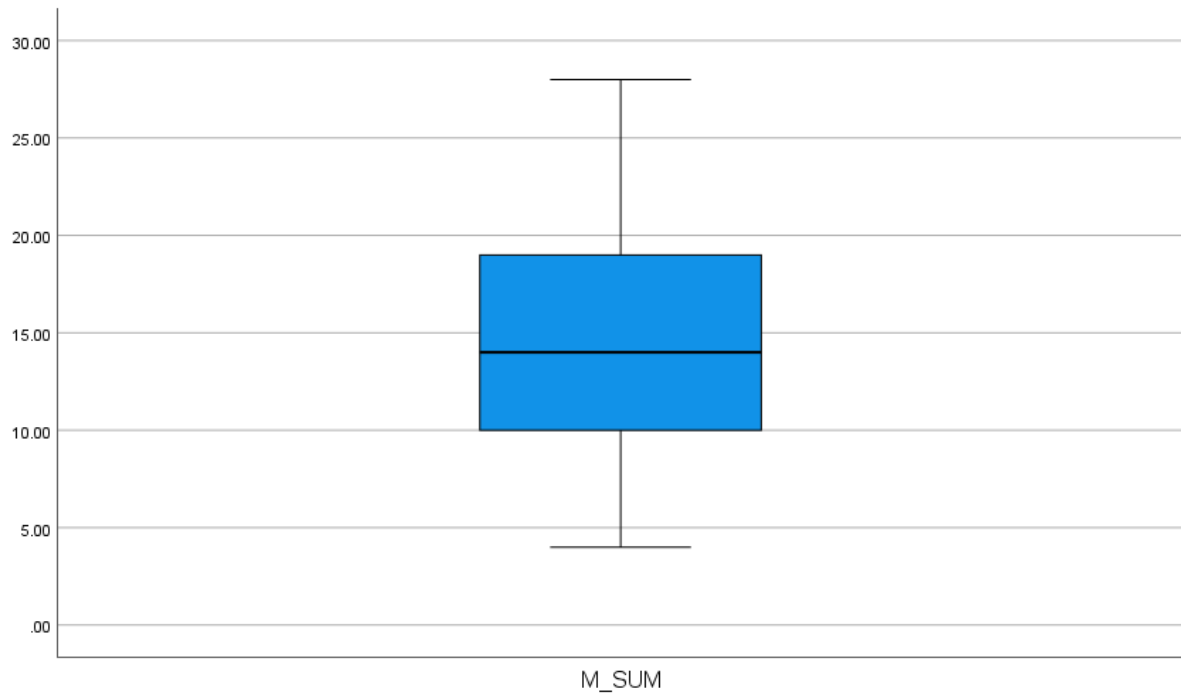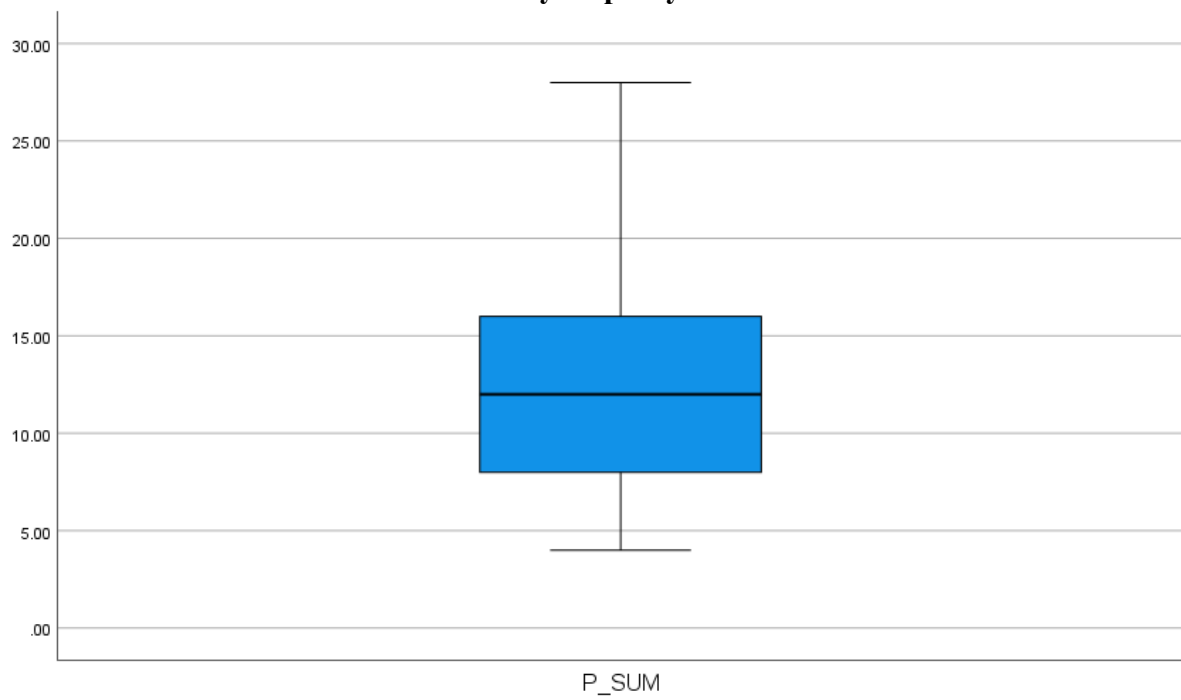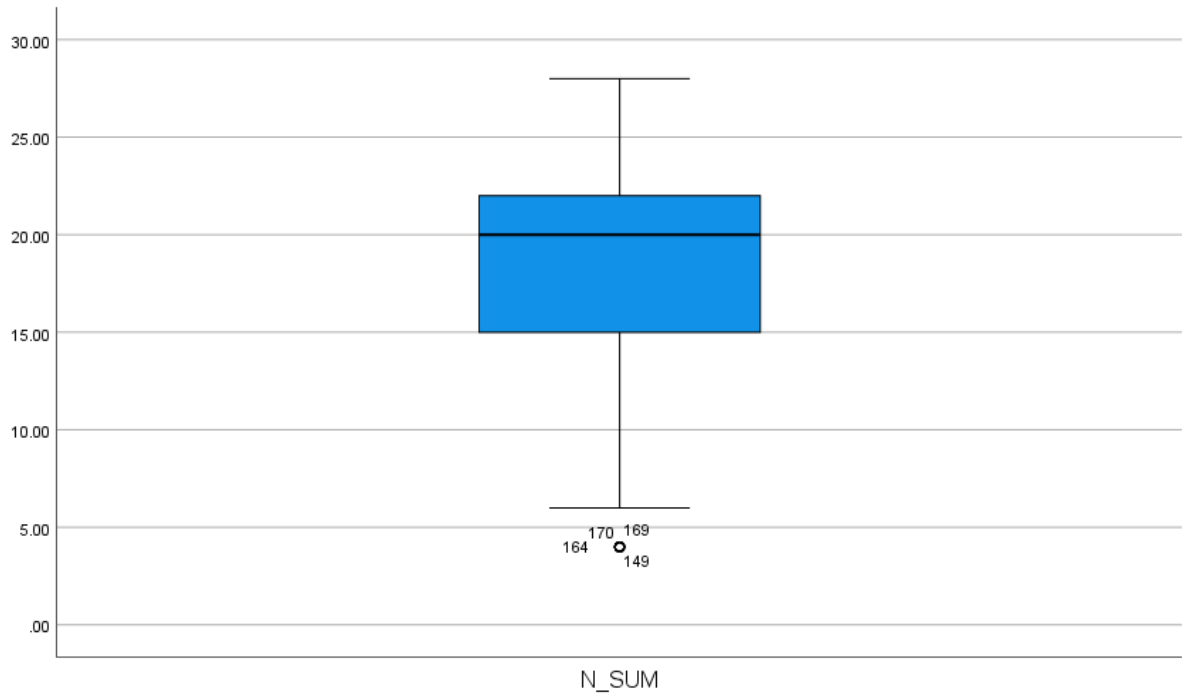
Machiavellianism

M_SUM

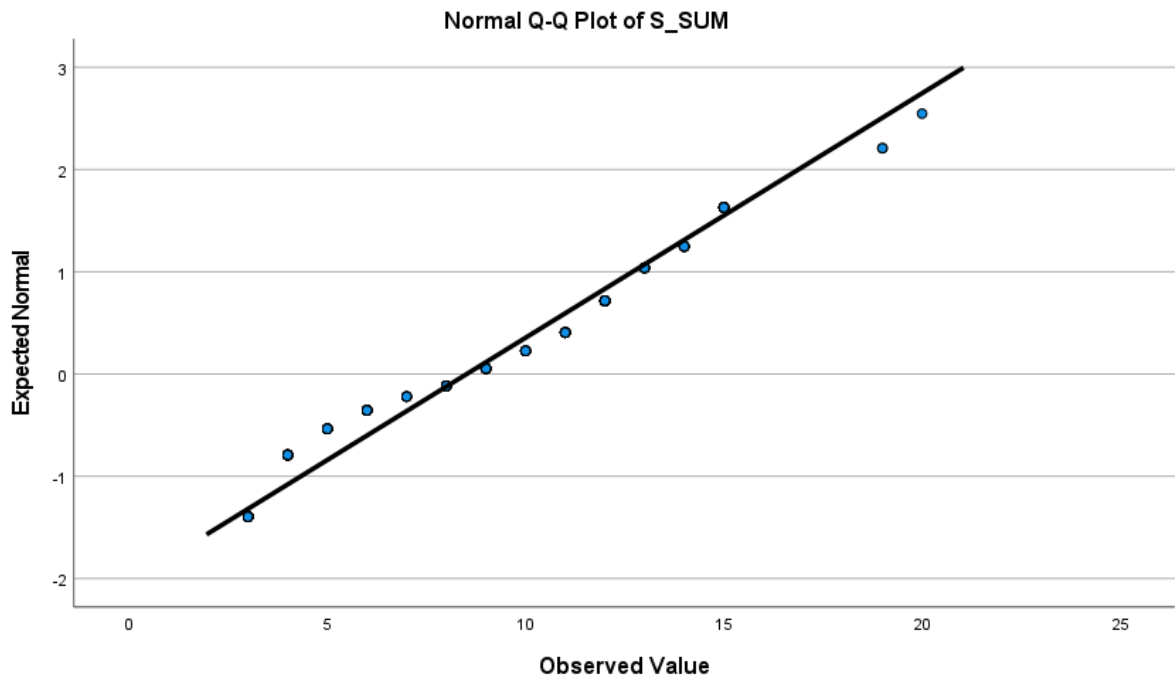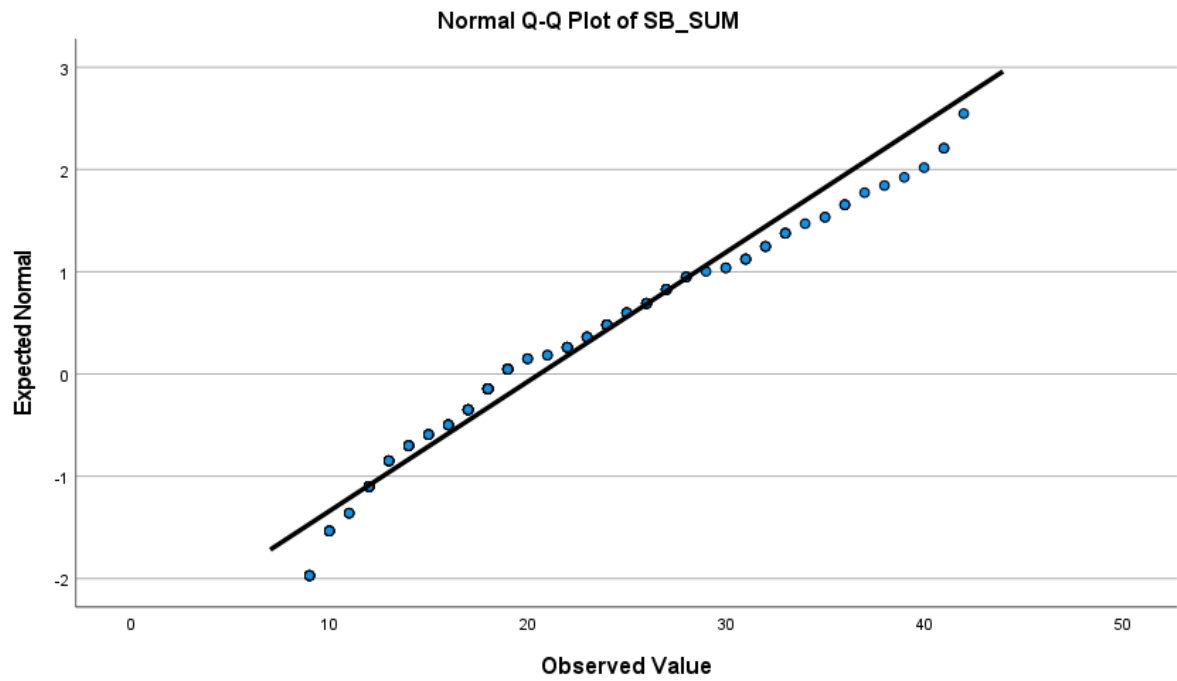### Psychopathy

P_SUM

Narcissism

Short-term Mating Orientation
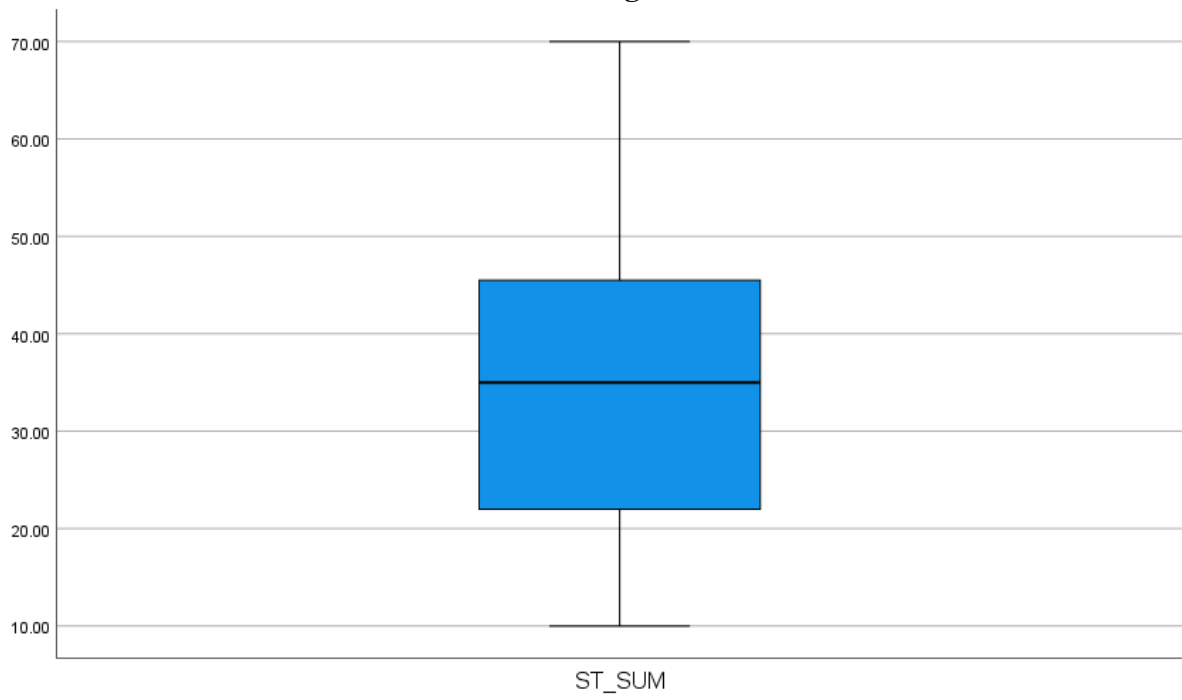
Long-term Mating Orientation
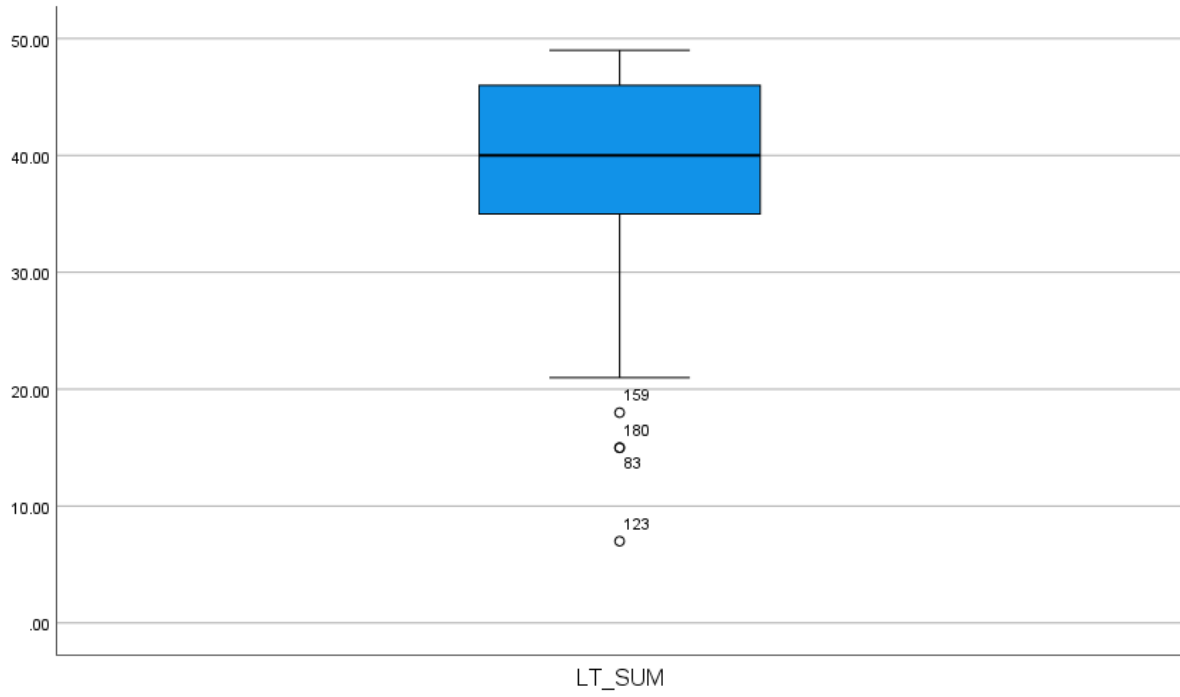
Sociosexual Behaviour
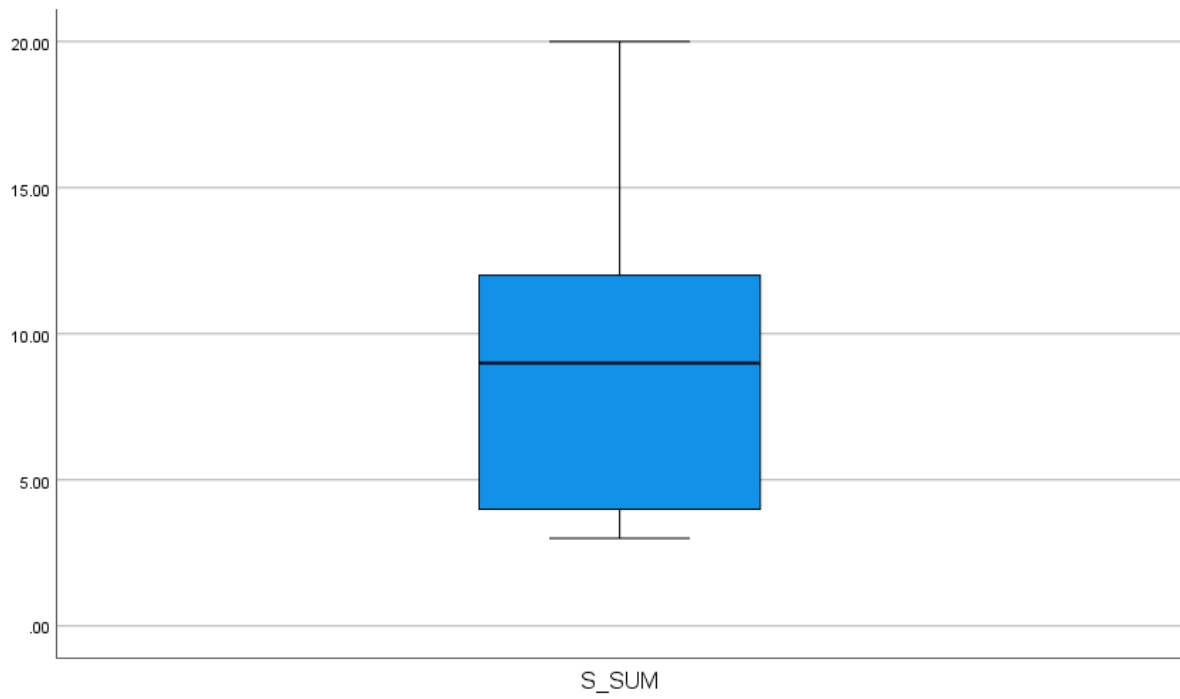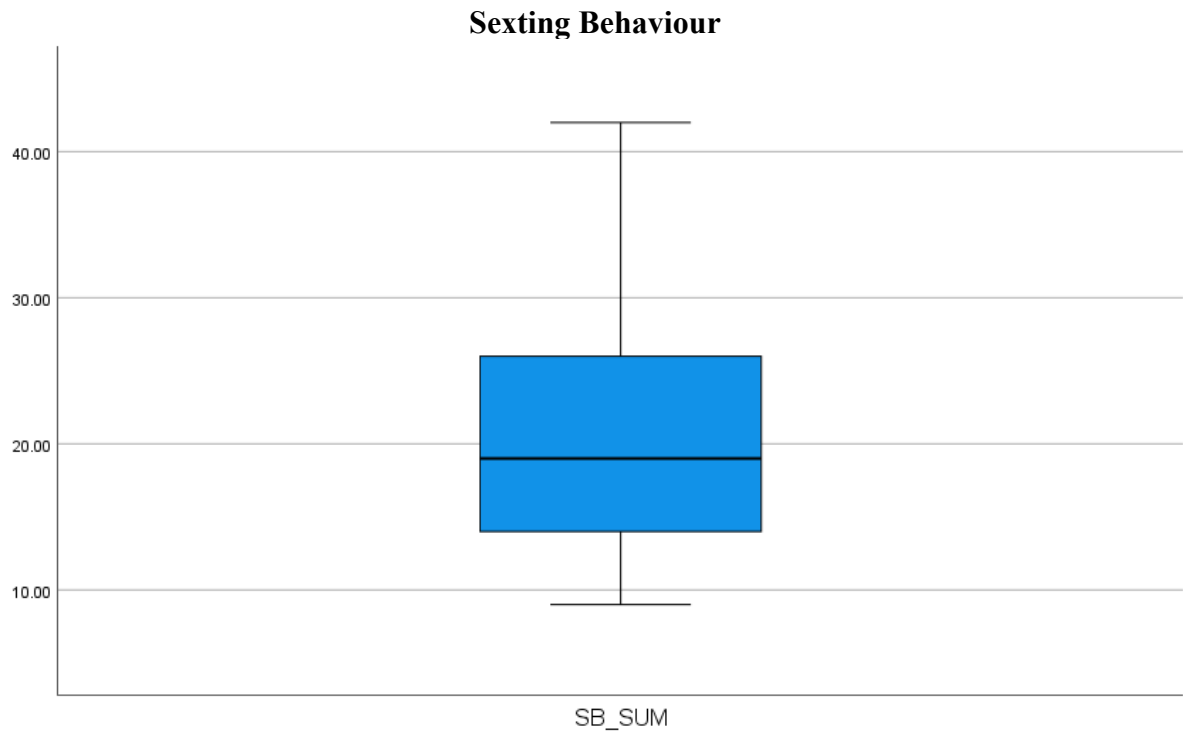
Sexting Behaviour

Appendix H

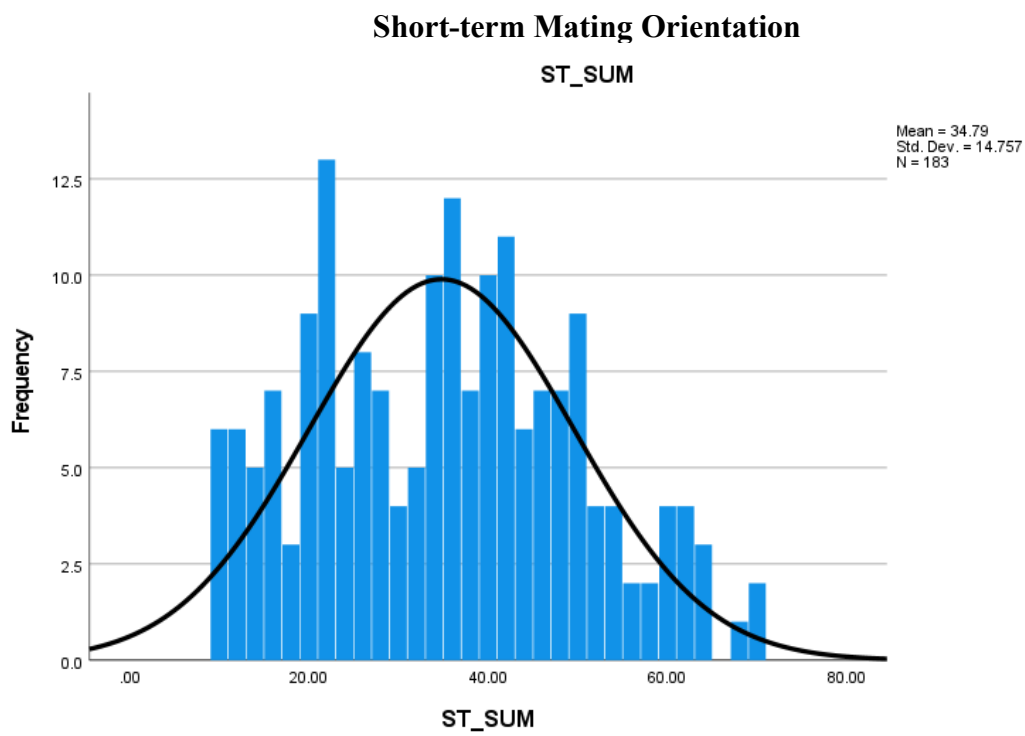**The Casewise Diagnostics for Sexting Behaviour**

Casewise Diagnostics[a]

Case Number	Std. Residual	SB_SUM	Predicted Value	Residual
47	2.615	33.00	15.2472	17.75285
48	-2.112	9.00	23.3407	-14.34067
98	-2.002	9.00	22.5943	-13.59426
113	3.571	38.00	13.7595	24.24053
159	2.143	40.00	25.4483	14.55167
166	2.018	34.00	20.2991	13.70086
167	2.484	35.00	18.1329	16.86708
173	2.417	42.00	25.5942	16.40579

a. Dependent Variable: SB_SUM

Appendix I

The Case Summaries for The Residuals Statistics (Mahalanobis Distance, Cook's Distance and Leverage)

Case Summaries

			Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
Group_P0	0	1	1	8.94383	.00001	.04914
		2	2	3.57772	.00553	.01966
		3	3	6.02413	.00078	.03310
		4	4	4.98821	.00125	.02741
		5	5	5.12294	.01361	.02815
		6	6	6.61700	.00117	.03636
		7	7	2.60466	.00082	.01431
		8	8	3.68476	.00268	.02025
		9	9	2.28908	.00052	.01258
		10	10	4.89499	.00024	.02690
		11	11	1.95720	.00831	.01075
		12	12	2.23908	.00757	.01230
		13	13	7.09187	.00035	.03897
		14	14	5.82665	.00108	.03201
		15	15	2.38716	.00331	.01312
		16	16	4.02662	.00739	.02212
		17	17	7.67205	.00578	.04215
		18	18	4.39252	.00034	.02413
		19	19	6.13377	.00197	.03370
		20	20	3.57378	.00306	.01964
		21	21	6.21569	.00159	.03415
		22	22	2.97265	.00565	.01633
		23	23	3.66693	.00136	.02015
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		29	29	10.06704	.00119	.05531
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33	33	1.88391	.00236	.01035
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	Total N		8	8	8
Total	N		183	183	183

Appendix J

Turnitin Report

PY-2024-1903606-2002021

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

Supervisee's Name: Lee Yih Wen, Tong Kher Sze

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	19/2/2024	yihwen	Tsa	See comments in the report	28/2/2024
			khersze	Tsa	See comments in the report	
Finding & Analysis	W3-W6					
Discuss Findings & Analysis with Supervisor		28/2/2024	yihwen	Tsa	See comments in the report	7/3/2024
Amending Findings & Analysis		7/3/2024	khersze	Tsa	See comments in the report	25/3/2024
Discussion & Conclusion	W7-W9					
Discuss Discussion & Conclusion with Supervisor		25/3/2024	yihwen	Tsa	See comments in the report	
Amending Discussion & Conclusion		25/3/2024	khersze	Tsa	See comments in the report	
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 rec 5. This record is to be submitted together with the submission of the FYP II.