SOCIAL APPEARANCE ANXIETY (SAA), FEAR OF MISSING OUT (FoMO), AND NEUROTICISM AS PREDICTORS OF SOCIAL MEDIA ADDICTION (SMA) AMONG UNDERGRADUATE STUDENTS IN MALAYSIA

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This research project is submitted in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology, Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman. Submitted in December 2024.

Copyright Statement

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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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Approval Form

This research paper attached hereto, entitled “Social Appearance Anxiety (SAA), Fear of Missing Out (FoMO), and Neuroticism as Predictors of Social Media Addiction (SMA) among Undergraduate Students in Malaysia” prepared and submitted by Jaclyn Goh Shi Xin, Janice Chan Cheng Yee, and Koh Qin Xuan in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

_____ Date: 20 Dec 2024

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Abstract

The phenomenon of social media dependency is on an upward trajectory among collegiate populations, a trend that can be ascribed to the advent of new technologies, potentially leading to a spectrum of detrimental psychological impacts on users who engage excessively. The current study sought to explore the roles of social appearance anxiety, the fear of missing out, and neuroticism as potential determinants of social media addiction within a cohort of undergraduate students in Malaysia. By employing a quantitative, descriptive methodology, the study utilized purposive sampling within a cross-sectional framework. Participants included 161 undergraduates ranging from 18 to 26 years of age (M = 20.37; SD = 1.49), with a female representation of 61.5% (n = 99) and a male representation of 37.3% (n = 60), encompassing Malay, Chinese, and Indian ethnicities. Data collection was facilitated through online platforms, with the survey constructed via Qualtrics and data analysis conducted using IBM SPSS version 23. Instruments including the Social Appearance Anxiety Scale (SAAS), Fear of Missing Out Scale (FoMOs), Big Five Inventory (BFI), and Bergen Social Media Addiction Scale (BSMAS) were employed. A multiple linear regression analysis was executed to ascertain the predictive effect of social appearance anxiety, fear of missing out and neuroticism on social media addiction. Outcomes revealed that social appearance anxiety and fear of missing out served as positive predictors of social media addiction among undergraduate students in Malaysia, whereas neuroticism served as a negative predictor. These insights are poised to enrich subsequent research endeavors and inform relevant entities in a more holistic examination and discussions on social media addiction issues. The study highlighted the importance of implementing targeted interventions and public awareness initiatives to address excessive digital usage. It also emphasized the need for collaborative efforts between mental health professionals and policymakers to reduce its adverse effects on mental health.

Keywords: social appearance anxiety, fear of missing out, neuroticism, social media addiction, undergraduate students

Subject area: H1-99, Social sciences (General)

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List of Abbreviations

SMA	social media addiction
DSM-5	Diagnostic and Statistical Manual of Mental Disorders – Fifth edition
FoMO	fear of missing out
FoMOs	Fear of Missing Out Scale
SAA	social appearance anxiety
SAAS	Social Appearance Anxiety Scale
BFI	Big Five Inventory
BSMAS	Bergen Social Media Addiction Scale
SM	social media
SDT	self-determination theory
QR	quick response
SERC	Scientific and Ethical Review Committee
UTAR	Universiti Tunku Abdul Rahman
SMF	social media fatigue

Chapter 1

Introduction

1.1 Background of Study

Social Networking has become a major impact in people's daily lives when it is the most ideal choice for social interactions. For example, Twitter, Facebook, Instagram and TikTok are the representatives of principal online social network utilized by contemporary society. On social media platforms, individuals disclose personal details and aspects of their lives, eliciting both positive and negative reactions from others. (Papapanou et al., 2023). Social media addiction (SMA) referred as an uncontrolled and dysfunctional pattern in utilizing online networks, leading to an irresistible urge to engage with these platforms and continued use despite adverse effects on various aspects of one's life, such as well-being, social interactions, and work or academic performance (Topino et al., 2023). Meanwhile, it is pertinent to note that SMA is not formally recognized as a medical disorder in the DSM-5 due to the absence of diagnostic criteria (Esteves, 2022), paucity of substantial evidence (Psych Scene Hub, 2024), and definitional ambiguity (Pies, 2009). According to Canoğulları et al. (2023), adolescents are more inclined to spend a greater amount of time online than adults, primarily for the purpose of engaging in social interactions. Adolescents such as students tend to find it easier to express themselves on social media platforms, which fosters a sense of belonging within their social circles and consequently leads to increased usage of online networking (Canoğulları et al., 2023). Meanwhile Fatin et al. (2023) stated that addiction prone behaviours have been linked to elements including the need for social engagement, spending too much time on online networking, along with fear of missing out (FoMO).

With the recent surge in social media usage, previous studies have identified a gradual rise in the incidence of social appearance anxiety (SAA) among individuals. (Canoğulları et

al., 2023). Therefore, a positive and statistically significant correlation on SAA and SMA was demonstrated in prior studies (Aslan & Tolan, 2022; Boursier et al., 2020; Canoğulları et al., 2023). SAA, a particular type of social anxiety, is strongly connected to how we perceive our body image. (Papapanou et al., 2023). Individuals struggling with SAA often hold a detrimental view of their body and appearance (Aslan & Tolan, 2022). Consequently, they frequently engage in behaviours aimed at camouflaging the characteristics or body areas which is undesirable. According to Aslan and Tolan (2022), the notion of SAA is broader and more holistic, encompassing not solely traits such as facial shape and skin colour but also general physical appearance including muscle structure, height, body shape and weight. This phenomenon is notably exacerbated by social media use with the rising prominence of unrealistic portrayals of physical appearance in social media content, which can amplify concerns about physical appearance and contribute to heightened feelings of loneliness.

Meanwhile, it is important to note that the fear of missing out (FoMO) is a significant psychological process that actively contributes to the development of SMA. According to prior research, the interrelation of FoMO and SMA are shown positive (Dempsey et al., 2019; Topino et al., 2023). Alutaybi et al. (2020) indicates that the term “fear of missing out” (FoMO) generally pertains to the fixation of online media users on missed prospects or experiences when they are not online or are incapable or unwilling to engage and interact with others as much as they desire. Meanwhile, FoMO represents a prevalent form of maladaptive attachment to social media, and it has been correlated with a spectrum of adverse life events and sentiments, including anxiety, diminished life skills, sleep deprivation, compromised emotional regulation, emotional strain, and negative effects on physical well being (Alutaybi et al., 2020). Negative cognitive expectations appeared to underlie the development of FoMO, leading individuals to engage in excessive internet usage (Younas et al., 2022).

In present study, Eichenberg et al. (2024) mentioned that other than FoMO, the personality trait neuroticism has been identified as predictors of social media addiction. Building on prior research, there is evidence indicating the interrelation of neuroticism and SMA were proven to be positive (Marengo et al., 2020; Sumaryanti et al., 2020). Neuroticism typically pertains to an individual's emotional well-being, incorporating elements such as adverse effect and anxiety (Huang, 2022). In a study by Huang (2022), observation can be accounted for by the increased tendency of neurotic individuals to exhibit social anxiety and to perceive online communication as a more comfortable means of interaction. This attributes neuroticism as a significant factor of social media anxiety.

1.2 Problem Statement

Most studies related to social appearance anxiety (SAA) as the predictor of social media addiction were conducted in the context of adolescents (Boursier et al., 2020; Çimke & Gürkan, 2023; Sarman & Çiftci, 2024). However, there was lack of research focused on undergraduate students in the prior studies (Aslan & Tolan, 2022). More empirical investigations should be conducted among undergraduate students because SMA and SAA are prevalent among undergraduate students (Salari et al., 2023; Yilmaz et al., 2023). Therefore, this study is dedicated to bridging the gap by delving into the experiences of undergraduate students.

Subsequently, research has primarily concentrated on adolescents as the main demographic in investigating the correlation between the fear of missing out (FoMO) and the development of SMA (Fabris et al., 2020; Parveiz et al., 2023; Younas et al., 2022). According to a study conducted by Parveiz et al. (2023), there is a strong correlation between FoMO and SMA, which is substantiated by a wealth of supportive research. In the course of

our investigation, it has become evident that most of the studies were conducted in overseas leading to a scarcity of contemporary localized inquiries conducted in Malaysia (Amat et al., 2024), and some of these are within the Malay context (Wahab et al., 2023), making it challenging for non-Malay speakers to comprehend. Consequently, our objective is to furnish a more current comprehension pertaining to the association between Fear of Missing Out (FoMO) as a precursor to SMA within the Malaysian milieu.

The interplay between neuroticism and SMA was found to be contradictory (Bowden Green et al., 2021). Few studies suggest that the likelihood of developing SMA is positively correlated with neuroticism (Mu et al., 2020). This statement is supported, as a higher status update frequency appears to be predicted by neuroticism, ultimately leading to an increase in SMA (Marengo et al. 2020). This phenomenon can be attributed to the response of college freshmen who exhibit high levels of neuroticism to adaptive pressure, as they are more prone to developing addiction to social media (Mu et al., 2020). However, contradictory findings state that neuroticism demonstrated an indirect correlation with SMA (Dilawar et al., 2022), which can be explained by the neuroticism personality type avoiding social media because the information overload increases their anxiety, making them feel more worried and anxious. (Soroya et al., 2021). Hence, due to the inconsistence of study, the current study aims to investigate the predicting effect that neuroticism has on SMA among Malaysia undergraduate students.

1.3 Research Objectives

1. To investigate whether social appearance anxiety (SAA) predicts social media addiction among undergraduate students in Malaysia.
2. To investigate whether fear of missing out (FoMO) predicts social media addiction among undergraduate students in Malaysia.
3. To investigate whether neuroticism predicts social media addiction among undergraduate students in Malaysia.

1.4 Research Questions

1. Does social appearance anxiety (SAA) positively predict social media addiction among undergraduate students in Malaysia?
2. Does fear of missing out (FoMO) positively predict social media addiction among undergraduate students in Malaysia?
3. Does neuroticism positively predict social media addiction among undergraduate students in Malaysia?

1.5 Hypotheses

H_1: Social appearance anxiety (SAA) positively predicts social media addiction amongundergraduate students in Malaysia.

H_2: Fear of missing out (FoMO) positively predicts social media addiction amongundergraduate students in Malaysia.

H_3: Neuroticism positively predicts social media addiction among undergraduate students inMalaysia.

1.6 Significance of Study

This present study helps to clarify how specific psychological factors such as social appearance anxiety, FoMO, and neuroticism predict social media addiction. By identifying these predictors, the research offers valuable insights into the psychological drivers behind excessive social media use. Understanding these factors can help in developing more effective prevention and intervention strategies tailored to the needs of undergraduate students. Moreover, undergraduate students are a population particularly vulnerable to mental health challenges and social media pressures (Mofatteh, 2020). By exploring how SAA, FoMO, and neuroticism contribute to SMA, this study provides essential information for addressing the well-being of students. Also, effective interventions can be designed to support students in managing these psychological factors and reducing their reliance on social media. Furthermore, conducting this research in Malaysia adds a culturally specific dimension to the understanding of SMA. Different cultural contexts can influence how SAA, FoMO, and neuroticism predict social media use. This study contributes to the shared knowledge by providing insights relevant to Malaysian students, which can inform culturally sensitive approaches to managing SMA. Moreover, this study adds depth to the academic literature on SMA by examining the interplay between SAA, FoMO, neuroticism, and social media use. It fills a gap by integrating these variables into a cohesive model that can be used to understand and address SMA more comprehensively.

1.7 Conceptual Definition

1.7.1 Social Appearance Anxiety

Social appearance anxiety (SAA) refers to the discomfort or distress an individual experiences regarding their physical appearance, which is influenced by perceived judgments from others. (Boursier et al., 2020). SAA is a type of anxiety characterized by the fear of being negatively judged or rejected by others due to one's physical appearance (Papapanou, 2023).

1.7.2 Fear of Missing Out (FoMO)

FoMO is characterized by a persistent anxiety and fear that others may be engaging in rewarding experiences or opportunities while one is excluded (Alshakhsi et al., 2023; Li et al., 2022).

1.7.3 Neuroticism

Neuroticism is defined by a frequent experience of negative emotions, unusual reactions to stress, ineffective coping mechanisms, a tendency to view experiences negatively, and interpersonal difficulties resulting from heightened sensitivity to criticism from others (Marciano et al., 2022). Neuroticism is commonly linked to both the experience and expression of negative emotions (Bowden-Green et al., 2021).

1.7.4 Social Media Addiction

Social media addiction can be defined as an overreliance on social media that results in several negative outcomes, including diminished work and academic performance, relationship issues, and various distress symptoms (Marengo et al., 2020). It is a behavioural addiction marked by an intense focus on social media, driven by an overwhelming compulsion to access or engage with it, and involving such extensive time and effort that it disrupts other important areas of life (Victor et al., 2024).

1.8 Operational Definition

1.8.1 Social Appearance Anxiety

The current study uses the Social Appearance Anxiety Scale (SAAS) to measure social appearance anxiety levels. This scale which was developed by Hart et al. in 2008 is used to determine the degree of fear related to circumstances where an individual's appearance might be perceived based on assessments of social anxiety, body dysmorphic disorder, and dissatisfaction in body image (Hart et al., 2008). The SAAS is a self-report measure consisting of 16 items on a 5-point likert scale, ranging from 1-5, 1 representing not at all, and 5 representing extremely. Item 1 is reverse-scored. The sum of the scores for each item determines the total score. Higher scores on SAAS indicate a higher level of appearance anxiety (Sevindi, 2020).

1.8.2 Fear of Missing Out

The Fear of Missing Out Scale (FoMOs) is a self-report measure used to measure the fear of missing out among undergraduate students in Malaysia. This scale was developed by

Przybylski et al. in 2013 to measure the level of fear that others might be having fulfilling experiences from which an individual is absent (Bowman & Clark-Gordon, 2019). FoMOs investigates the concerns, anxieties, and fears associated with not staying updated on the activities, discussions, and experiences of one's peers within their immediate social circle (Fabris et al., 2020). This scale consists of 10 items on a 5-point likert scale ranging from 1-5, 1 representing Not at all true of me, and 5 representing Extremely true of me. The total score ranges from 10-50, which is determined by adding up the scores of each item. Higher scores indicate a higher level of fear of missing out (Chi et al., 2022).

1.8.3 Neuroticism

The Big Five Inventory (BFI) scale is a self-reported scale developed by John & Srivastava in 1999 which consists of 44 items based on the 5 dimensions of personality, including neuroticism, openness, agreeableness, extraversion, and conscientiousness. In the current study, the neuroticism subscale will be used, which consists of 8 items namely items 4, 9, 14, 19, 24, 29, 34, and 39 on a five-point likert scale ranging from 1-5, 1 representing disagree strongly and 5 representing agree strongly. Items 9, 24, and 34 are reverse-scored. The total score of the subscale is calculated by summing up the scores of its respective items. Higher scores indicate higher levels of neuroticism.

1.8.4 Social Media Addiction

In the current study, the Bergen Social Media Addiction Scale (BSMAS) which was developed by Andreassen et al. in 2016 will be used to measure the degree of social media addiction among undergraduate students in Malaysia. This 6-item self-reported questionnaire consists of six components including salience (engrossment with SM), mood modification

(SM engagement enhances mood), tolerance (increased SM usage needed for satisfaction), withdrawal symptoms (reduced SM usage causes restlessness and negativity), conflict (SMA leads to conflicts and issues), and relapse (resuming SMA patterns after some time of restriction), where each item corresponds to each of the components (Gomez et al., 2024). The BSMAS uses a 5-point likert scale ranging from 1-5, where 1 represents very rarely, and 5 represents very often. The total score is calculated by summing up the scores of each item. Higher scores indicate a higher level of social media addiction.

Chapter 2

Literature Review

2.1 Social Appearance Anxiety (SAA) and Social Media Addiction (SMA)

Research by Aslan & Tolan (2022) found that SAA had positively predicted SMA among university students. This was because frequent exposure to visual content on social media can increase the tendency for people to compare themselves to others. Consequently, engaging in digital activities focused on body image might contribute to problematic social media use, as dissatisfaction with appearance might drive students to manage and create an idealized version of themselves online (Aslan & Tolan, 2022). The term 'problematic social media use' is used because it is interchangeable with 'social media addiction' to describe maladaptive behaviours related to social media usage (Sun & Zhang, 2021). Also, problematic social media use was assessed using the Bergen Social Media Addiction Scale (BSMAS) (Casale et al., 2023). Moreover, in today's world, social media use is a routine daily task, particularly among undergraduate students who frequently engage in sharing visual content (Aslan & Tolan, 2022). For example, posting selfies is especially popular among the students, as it serves as a way to enhance their self-presentation through the approval of others. However, greater engagement with social media's visual content can result in heightened social comparisons and reinforce concerns about appearance. Consequently, digital activities focused on body image might enable those dissatisfied with their looks to manage and create an idealized online persona, which could lead to problematic social media use (Aslan & Tolan, 2022).

Therefore, the numerous opportunities for self-disclosure and the pursuit of popularity through positive feedback can create a behaviour-reward feedback loop, which often underlies problematic social media use (Boursier et al., 2020). Besides that, social media

provides a platform for people to manage their self-presentation through images, videos, selfies and other visual content (Boursier et al., 2020). As a result, people who feel anxious about their appearance and body image may exhibit higher levels of problematic social media use.

Furthermore, Yilmaz et al. (2023) demonstrated that SAA positively predicts problematic social media use among undergraduates. This suggests that higher levels of SAA could lead to more problematic behaviors related to social media use. The ways students cope with body image concerns and social anxiety were linked to their social media usage (Papapanou et al., 2023). SAA involves the fear of receiving negative judgment or experiencing rejection because of one's physical appearance. Individuals with SAA commonly have a poor self-image regarding their body and appearance, and they often attempt to hide or alter the aspects they find unattractive. They generally avoid physical interaction and prefer online communication, which reduces exposure and allows for easier manipulation of their image (Papapanou et al., 2023). This anxiety can cause an urge to remain unseen and heighten feelings of loneliness due to fear of rejection. Social media offers a way for people to present themselves in a manner that aligns with their desired image. Individuals with high SAA often turn to online interactions to evade face-to-face social situations, using the internet to hide features of their appearance that they consider unappealing (Papapanou et al., 2023). Hence, SAA can lead to SMA among undergraduate students.

2.2 Fear of Missing Out (FoMO) and Social Media Addiction (SMA)

In the wake of the emergence of online networking, numerous studies have underscored the paramount significance of the fear of missing out (FoMO) in comprehending

social media addiction (SMA) among undergraduate students. FoMO, characterized by a pervasive apprehension regarding the exclusion from rewarding events experienced by others, were recognized as a substantial catalyst for SMA among adolescents (Koç et al., 2023; Sun et al., 2022; Tunc-Aksan & Akbay, 2019). Meanwhile, the interconnection between FoMO and SMA has been extensively investigated, encompassing its influence on psychological well-being, academic performance, and social behaviors (Alinejad et al., 2022; Rubini & Siby, 2024; Uram & Skalski, 2020).

Research findings indicate that FoMO act as a pivotal role in mediating the link between individual traits such as self-control, perceived competence, and distress, and the development of SMA (Sun et al., 2022; Koç et al., 2023). FoMO is noted to potentially lead to SMA, subsequently contributing to anxiety, depression, and stress (Abellana et al., 2024; Fabris et al., 2020). Additionally, existing research indicates that the Fear of Missing Out (FoMO) is directly linked to feelings of loneliness, prompting individuals to seek solace in social media as a way to fulfill their emotional and psychological requirements (Alinejad et al., 2022; Liu et al., 2024; Uram & Skalski, 2020).

Furthermore, the impact of FoMO on SMA transcends individual well-being to encompass broader outcomes such as academic procrastination and achievement (Alinejad et al., 2022; Anierobi et al., 2021). It has been demonstrated that SMA, propelled by FoMO, significantly predicts academic behaviors among undergraduate students, thereby influencing their study habits and performance (Alinejad et al., 2022; Anierobi et al., 2021; Ozer, 2020).

Additionally, the influence of FoMO on SMA extends to interpersonal dynamics and social relationships. Research has indicated that FoMO can engender "phubbing" behavior, wherein individuals prioritize online interactions over face-to-face communication, thereby

impinging upon their social interactions and relational well-being (Chi et al., 2022; Younas et al., 2022).

2.3 Neuroticism and Social Media Addiction (SMA)

Personality type influences how much time is spent on social media (Akça et al., 2020). Among personality types, neuroticism is known as the experience of severe and persistent negative emotions (Barlow et al., 2021). Using social media helps to manage these emotions of depression, nervousness, and worry (Dilawar et al., 2022). Neuroticism has been consistently demonstrated to be a contributing factor for SMA (Marciano et al., 2022). Individuals with neuroticism engage more in social media for self-disclosure (Kircaburun et al., 2020) and interact with others via social media instead of in person due to communication disturbance (Kandell, 1998) which leads to SMA (Marengo et al., 2020).

There is a lack of studies between neuroticism traits and SMA (Dilawar et al., 2022). Prior research revealed a direct correlation between neuroticism and SMA (Dilawar et al., 2022; Marengo et al., 2020), and neuroticism significantly predicts SMA (Mu et al., 2020). This is caused by an increased desire for self-expression and for seeking social support (Marengo et al., 2020) However, a study done by Mercan & Uysal (2023) found that there is no correlation between SMA and neuroticism. This may be caused by neurotics do not seem to value networks or work hard to build a sizable online social network due to extreme caution or anxiety over the posts (Bowden-Green et al., 2021).

2.4 Theoretical Framework

2.4.1 Self-Determination Theory (SDT)

The self-determination theory (SDT) is used in the current study to explain the predicting effect of FoMO, and neuroticism on SMA. SDT is a psychological theory of motivation and personality developed by Deci and Ryan. It uses motivational conceptions to address the trajectory and motivation of behaviour (Deci & Ryan, 2013). Deci and Ryan (2000) state that the consideration of three intrinsic psychological requirements is necessary for motivation. The three psychological needs are 1) autonomy, which is the need for a sense of psychological freedom, 2) competence, which is the need to believe that one's efforts are effective in order to recognize and achieve desired results, and 3) relatedness, which is the yearning to experience caring and interpersonal connections (Topino et al., 2023).

FoMO creates negative emotions such as envy, jealousy, and discontent (Ilyas et al., 2022), which leads to engagement in social media. Based on SDT, higher levels of FoMO lead to behaviours that aim to reinforce a sense of self and identity by spending more time on social media (Varchetta et al., 2020). Since social media provides the autonomy to personalize the way they use social media (Wei et al., 2022), individuals with high levels of FoMO are more motivated when they have the opportunity to actively participate in a constructive and encouraging environment (Legault, 2020) in a way of fulfilling the psychological need for autonomy.

Neuroticism is the dimension that is used to quantify emotional instability including anxiety, despair, anger, worry, and insecurity (Farfán et al., 2020). Neuroticism displays a propensity to experience negative emotions frequently due to high sensitivity to others' criticism, thus showing a link to SMA (Marciano, 2022) as the pursuit of likes, comments, and other forms of validation from social media can become a way to manage or mitigate

feelings of inadequacy or anxiety. Therefore, based on SDT, neurotics may abuse social media in a form of actively seeking competence and validation.

In terms of relationships, individuals with high levels of neuroticism typically report having less positive interactions with those around them and, thus, feeling less content with their social support system than people with stable emotional states (Bowden-Green et al., 2021). Therefore, they experience a strong desire for social connection. Since SDT explains the driving forces behind social behaviour and personality in the connection between fundamental psychological needs (Ryan & Deci, 2024), it can be explained as individuals with high neuroticism traits engage more frequently in social media as an immediate and accessible way to fulfill the psychological need for relatedness, leading to SMA.

2.4.2 Self-objectification Theory

In the current study, the self-objectification theory is used to explain SAA and SMA. The self-objectification theory explains anxiety associated with appearances (Fredrickson & Roberts, 1997), suggesting that the underlying cause of appearance anxiety is the internalization of external norms onto one's own assessment criteria (Gao et al., 2023). Studies indicated that social media is linked to the perception of the ideal body image, appearance anxiety and self-objectification (Söyünmez et al., 2024).

Anxiety about appearance can result in poor self-perceptions, which can lower self-compassion over time and cause social anxiety (Gao et al., 2023). Studies showed a connection between degrees of self-objectification and SAA when exposed to social media posts and pictures regarding appearance (Söyünmez et al., 2024). Additionally, it is claimed that using social media and self-objectification both impact and underpin each other (Strelan & Hargreaves, 2005; Veldhuis et al., 2020), in which social media leads to self-

objectification (Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998) through the sharing on healthy and organic nutrition, selecting foods, and exercise. Social media users who organize their images on Instagram internalize the social media beauty standard more and experience greater anxiety about their appearance (Verrastro et al., 2020). As a result, individuals attempt to appear ideal due to social media and societal pressures, which leads to self-objectification and SAA. Thus, in terms of social media usage patterns and usage length, self-objectification and SAA are linked to social media use, leading to more time spent on social media, causing a rise in body objectification (Graff & Czarnomska, 2019).

2.5 Conceptual Framework

Figure 1

The conceptual framework of Social appearance anxiety, fear of missing out (FoMO), and neuroticism as predictors of social media addiction among undergraduate students in Malaysia.

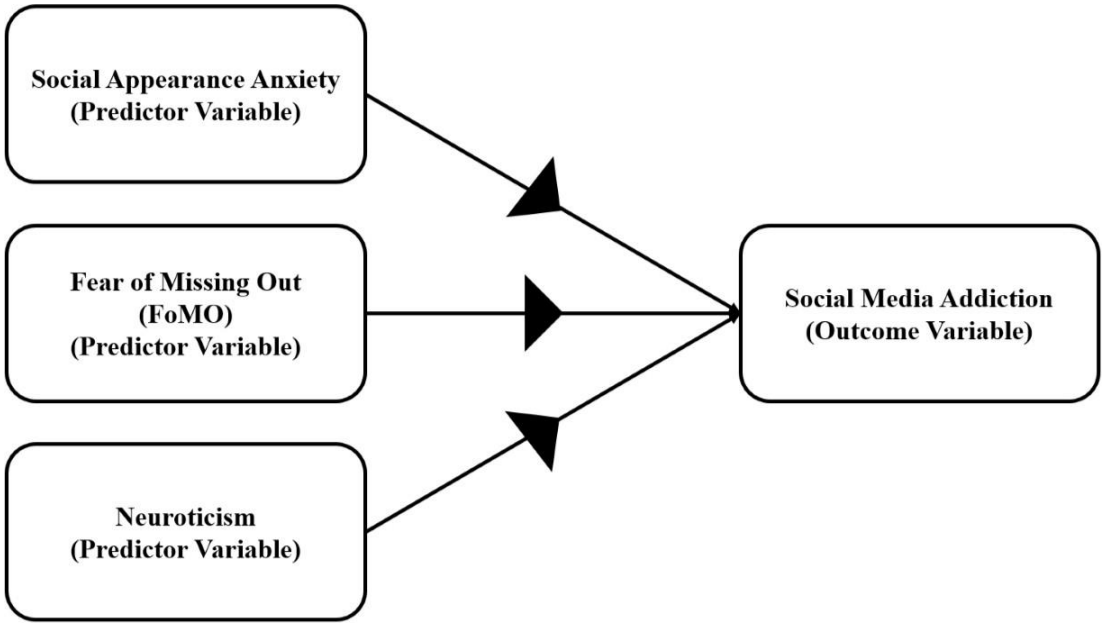

Figure 1 depicts the interrelationship between four variables: social appearance anxiety (SAA), fear of missing out (FoMO), neuroticism, and social media addiction (SMA). The predictor variables encompass social appearance anxiety, fear of missing out (FoMO), and neuroticism, while the outcome variable pertains to social media addiction. The research study aims to scrutinize the predictive nature of social appearance anxiety, fear of missing out (FoMO), and neuroticism as predictor of social media addiction among undergraduate students in Malaysia.

Chapter 3

Methodology

3.1 Research Design

The present study applied a quantitative and descriptive research method to analyze the gathered data. Gathering, analyzing, and interpreting measurable data is necessary to validate the hypothesis formulated in a specific research endeavor (Ghanad, 2023; Kotronoulas et al., 2023). Additionally, the statistical analysis utilized in this study employed multiple linear regression. In descriptive studies, the researcher only describes the sample and the variable without manipulating any of the variables in order to study individual events or conditions as they are in nature (Aggarwal & Ranganathan, 2019). The descriptive approach presents the advantage of conducting the study within the respondent's natural setting, thereby ensuring the acquisition of high-quality data and the representation of a sizable population (Ghanad, 2023). Furthermore, a cross-sectional study design was implemented to examine social appearance anxiety (SAA), fear of missing out (FoMO), and neuroticism as the predictors of social media addiction (SMA) among undergraduate students in Malaysia. The utilization of a cross-sectional study design was justified by its capability to efficiently gather a large volume of responses within a short time frame, while also being cost-effective (Wang & Cheng, 2020). The questionnaires were efficiently disseminated to participants via online media platforms for the purpose of analysis.

3.2 Sampling Procedures

3.2.1 Sampling Method

The current research implemented a non-probability sampling method, which utilizes a non-random selection of research participants (Turban et al., 2023). This method was chosen as non-probability survey samples were a readily available, quicker, and more affordable data source and are generally used for online research (Wu, 2022). Purposive sampling is a non-probability sampling method that was applied in the current study. Non-probability sampling is predicated on the idea that selecting the best cases for the study yields the most accurate results, and that the cases selected directly influence the research findings (Mweshi & Sakyi, 2020). In this study, participants were required to fulfill the four inclusion criteria of (a) an undergraduate student in Malaysia; (b) of ages 18 years and above; (c) physically in Malaysia at the time of responding to the current study's questionnaire; and (d) acknowledges the risks and liabilities associated with the current study and accepts the requirement for informed consent. Thus, the participant's requirement to fulfil the inclusion criteria makes the current study non-probabilistic and purposive (Campbell et al., 2020) and it allows the collection of case-rich evidence for a comprehensive evaluation (Nyimbili & Nyimbili, 2024).

3.2.2 Research Location

The present study was specifically designed to include undergraduate students from both public and private higher education institutions within Malaysia. Consequently, any undergraduate student attending a Malaysian university was considered a suitable candidate for participation. The research objectives were to investigate the predictive effects of SAA, FoMO, and neuroticism on SMA among this demographic. Distribution of the Qualtrics

survey occurred through various social media channels, namely WhatsApp, Instagram, Facebook, and Microsoft Teams. Additionally, the survey's QR code was made available to prospective respondents during in-person encounters.

3.2.3 Procedures of Ethical Clearance Approval

The current research was submitted to and gained approval by the supervisor of this study, Miss Teoh Xi Yao. Ethical clearance approval was given by the Universiti Tunku Abdul Rahman's Scientific and Ethical Review Committee (SERC) after the submission of the demographic information form and instruments used. After being approved by SERC, the online questionnaire was distributed to the public. This was to make sure that the study does not violate any ethical concerns. The reference number for this ethical clearance approval is Re: U/SERC/78-361/2024. (Refer to Appendix B)

3.3 Sample Size

The sample size was calculated utilizing G*Power version 3.1.9.7 software in this study. G*Power is a statistical software tool designed for conducting power analysis in various research contexts (Kang, 2021). It helps researchers determine the appropriate sample size needed for their studies based on specific parameters and desired levels of statistical power. Thus, G*Power is a valuable tool for researchers in planning and evaluating the statistical aspects of their studies, ensuring that they can draw reliable and valid conclusions from their data. To calculate the effect size for each predictor, the formula, $f^2 = \frac{R^2}{1-R^2}$ was utilized. The average effect size for this present study was .221 (Refer to Appendix C)

Moreover, the P-value was .05 and the power level was .95. The total sample size calculated was 82 participants. (Refer to Appendix C).

3.4 Data Collection Procedures

3.4.1 Inclusion and Exclusion Criteria

Participants were selected based on four inclusion criteria in this study. in this present study, such as (a) an undergraduate student in Malaysia; (b) of ages 18 years and above; (c) physically in Malaysia at the time of responding to the current study's questionnaire; and (d) acknowledged the risks and liabilities associated with the current study and accepted the requirements for informed consent. Participants who failed to fulfill the inclusion criteria were excluded from the research.

3.4.2 Procedures of Obtaining Consent

Prior to commencing data collection, the research proposal was submitted to the Scientific and Ethical Review Committee (SERC) at Universiti Tunku Abdul Rahman (UTAR) for ethical approval. This process was essential to ensure that the study complied with ethical standards, protected participant’s welfare and data privacy throughout the research. The informed consent form was included in the online survey to guarantee adherence to ethical standards, ensuring participants were fully informed about the study's title, purpose, risks, and their rights, thus promoting transparency and ethical integrity.

3.4.3 Procedures of Data Collection

The survey for this research was administered using Qualtrics, a web-based survey tool. The questionnaire included the SAAS, FoMOs, BFI, and BSMAS scales. It also collected the demographic information such as age, gender, race, current university, and nationality to ensure participants meet the inclusion criteria and to gather relevant background details. Informed consent was obtained before participation, to allow participants to have a clear understanding of the survey before they attempted to respond and to agree to the use of their data. In order to protect privacy and confidentiality, all responses were submitted anonymously, as explained in the consent process. Participants had full control over their involvement as they could choose to complete the survey or to stop at any time without any obligations. Furthermore, the survey link was distributed via various social media platforms, including WhatsApp, Instagram, Facebook, WeChat, and Microsoft Teams, while QR codes were provided physically to facilitate immediate responses from eligible participants.

3.5 Pilot Study

A pilot study involves preliminary testing or "experimenting out" a specific research method (Baker, 1994). Carrying out a pilot study provides prior notice about potential failure points for the main research project, potential violations of research protocols, and whether suggested instruments or methodologies are too complex or unsuitable (Van Teijlingen & Hundley, 2001). The recommended sample size for pilot studies is at least 30 participants (Browne, 1995). For the pilot study, Qualtrics was used to generate the questionnaire, which included consent form, demographic questions, SAAS, FoMOs, neuroticism subscale of the BFI, and BSMAS. Participants were recruited physically via Qualtrics QR code and through

social media platforms including WhatsApp via the Qualtrics link. A total of 75 raw total participants were recruited for the pilot study, and only 42 were retained after data cleaning of incomplete data.

The Cronbach's Alpha for SAAS was 0.933, and according to George & Mallery (2019), it has excellent inter-item reliability. For FoMOs, the Cronbach's Alpha was 0.885, while for BSMAS, the Cronbach's Alpha was 0.882. According to George & Mallery (2019), both of them showed good inter-item reliability. However, for the neuroticism subscale of BFI, the Cronbach's Alpha obtained was 0.549, and according to George & Mallery (2019), it has poor inter-item reliability. This may be due to a low number of items (Tavakol, 2011; Schrepp, 2020) and small sample size (Kennedy, 2022), hence a larger sample size was needed to achieve a higher Cronbach's Alpha value (Yurdugül, 2008). In fact, for the actual study, the neuroticism subscale of BFI obtained a Cronbach's Alpha value of 0.707 which is acceptable according to George & Mallery (2019). Inter-item reliabilities of the four scales were shown in Table 3.5 below:

Table 3.5

Inter-item reliabilities for pilot study (*n* = 42)

Scale	Cronbach's Alpha
SAAS	0.933
FoMOs	0.885
BFI (Neuroticism)	0.549
BSMAS	0.882

3.6 Actual Study

The actual study began after the pilot study was completed and no major problems were found. IBM SPSS Statistics 23 computer software was used for data cleaning and analysis after recruiting a sufficient number of participants. 161 final cases were retained after data cleaning.

3.7 Instruments

3.7.1 Social Appearance Anxiety Scale (SAAS)

The Social Appearance Anxiety Scale (SAAS) was developed by Hart et al. in 2008 to measure the anxiety of being judged for one's own general appearance, including but not limited to their body shape (Hart et al., 2008). This self-report measure has 16 items on a 5-point likert scale (1= not at all; 5= extremely), where item 1 is reverse-scored. The total score was calculated by summing up the scores of each item, with the total score ranging from 16-80. Higher scores indicated a higher level of social appearance anxiety. Examples of items are "I feel nervous when having my picture taken." and "I get tense when it is obvious people are looking at me.", and yielded a Cronbach's Alpha value of 0.95, which showed excellent internal consistency (Caner et al., 2022). In the current study, Cronbach's Alpha value for SAAS was 0.934, which showed excellent internal consistency. (Refer to Appendix D)

3.7.2 Fear of Missing Out Scale (FoMOs)

The Fear of Missing Out Scale (FoMOs) is a self-report scale developed by Przybylski et al. in 2013 on the basis of developing an empirically based explanation of the phenomenon of FOMO (Przybylski et al., 2013). This scale has 10 items on a 5-point likert

scale (1= Not at all true of me; 5= Extremely true of me). The total score ranged from 10-50 and was calculated by summing up the scores of each item. Higher scores indicated a higher level of fear of missing out. Examples of items are “I fear others have more rewarding experiences than me” and “I fear my friends have more rewarding experiences than me”. The scale yielded a Cronbach’s Alpha value of 0.91, which showed excellent internal consistency (Chashmi et al., 2023). In the current study, Cronbach’s Alpha value for FoMOs was 0.867, which showed good internal consistency. (Refer to Appendix D)

3.7.3 Big Five Inventory (BFI)

This self-report scale was developed by John and Srivastava in 1999 and has 44 items that measures people based on the five dimensions of personality, namely extraversion, conscientiousness, agreeableness, openness, and neuroticism (Goldberg, 1993). In the current study, the neuroticism subscale was used. There are 8 items under the neuroticism subscale, which are items 4, 9, 14, 19, 24, 29, 34, and 39. Items 9, 24, and 34 are reverse-scored items. This scale uses a five-point likert scale (1= disagree strongly; 5= agree strongly). Subscale scores were calculated by summing up the scores of its respective items, where the total score ranged from 8-40. Higher scores indicated a higher level of neuroticism. Examples of items are “Is depressed, blue”, and “Can be tense”. Cronbach’s Alpha value for the neuroticism subscale was 0.86, which showed good internal consistency (Waddell et al., 2020). In the current study, this scale obtained Cronbach’s Alpha value of 0.707, which showed acceptable internal consistency. (Refer to Appendix D)

3.7.4 Bergen Social Media Addiction Scale (BSMAS)

The Bergen Social Media Addiction Scale (BSMAS) is a self-report scale developed by Andreassen et al. in 2016 to evaluate the effects of overusing social media (Andreassen et al., 2016). This scale has 6 items on a 5-point likert scale (1= very rarely; 5= very often). The total score was calculated by summing up the scores of each item, with the total score ranging from 6-30. Higher scores indicated a higher level of social media addiction. Examples of items are “You spend a lot of time thinking about social media or planning how to use it”, and “You feel an urge to use social media more and more”. The Cronbach’s Alpha value of the scale was 0.88, which showed good internal consistency (Zarate et al., 2023). In the current study, Cronbach’s Alpha value for BSMAS was 0.804, which showed good internal consistency. (Refer to Appendix D)

Chapter 4

Results

4.1 Descriptive Statistics

4.1.1 Demographic Characteristics

After data cleaning and removing missing cases and cases that did not fulfill inclusion criteria, only 161 cases were retained for the current study. (Refer to Appendix E)

According to Table 4.1.1 below, a significant disparity of demographic variables was observed among participants. The age range for participants recruited was from 18-26 years old $M = 20.37$, $SD = 1.49$, with more female representation of 61.5% ($n = 99$) than male representation of 37.3% ($n = 60$), and with 1.2% of participants who preferred not to state their gender ($n = 2$). Most participants were Malaysian ($n = 155$, 96.3%), and a small number were from other nationalities ($n = 6$, 3.7%), including China, India, and Singapore. For ethnicity, most participants were Chinese ($n = 140$, 87%), followed by Indian ($n = 17$, 10.6%), Malay ($n = 3$, 1.9%), and Dusun ($n = 1$, 0.6%). Most participants were from Universiti Tunku Abdul Rahman (UTAR) ($n = 143$, 88.8%), and the rest were from other universities or colleges ($n = 18$, 11.2%).

Table 4.1.1

Demographic Information of Research Sample (n = 161)

	n	%	*MD*	*SD*
Gender				
Male	60	37.3		

Female	99	61.5		
Prefer not to say	2	1.2		
Age			20.37	1.49
Nationality				
Malaysian	155	96.3		
Others	6	3.7		
Ethnicity				
Chinese	140	87.0		
Indian	17	10.6		
Malay	3	1.9		
Dusun	1	0.6		
University				
UTAR	143	88.8		
Others	18	11.2		

Note. *n* = number of cases; % = percentage; *M* = mean; *SD* = standard deviation

4.1.2 Topic-Specific Characteristics

Table 4.1.2 below showed descriptive statistics for social appearance anxiety (*M* = 38.78, *SD* = 13.03), fear of missing out (*M* = 24.42, *SD* = 8.03), neuroticism (*M* = 25.55, *SD* = 4.54), and social media addiction (*M* = 16.07, *SD* = 4.86). (Refer to Appendix E)

Table 4.1.2

Frequency Distribution of Topic-Specific Characteristics (i.e., Social Appearance Anxiety, Fear of Missing Out, Neuroticism, and Social Media Addiction) (n = 161)

	M	*SD*	Min	Max
Social Appearance Anxiety	38.78	13.03	17	71
Fear of Missing Out	24.42	8.03	10	46
Neuroticism	25.55	4.54	12	35
Social Media Addiction	16.07	4.86	6	30

Note. *M* = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value

4.2 Data Diagnostic and Missing Data

4.2.1 Frequencies and Percentages of Missing Data

Among 215 raw total participants, there were a total of 54 cases (25.12%) which were disqualified. Only 161 cases were retained after data cleaning.

4.2.2 Methods Employed for Addressing Missing Data

All 54 disqualified cases were manually deleted from the data set.

4.2.3 Criteria for Post Data-Collection Exclusion of Participants

Cases of 13 participants who chose “I disagree, my personal data will not be processed” during the informed consent were deleted. Cases of 7 participants who fall under unmet inclusion criteria of “ages 18 years and above” were manually deleted.

4.2.4 Criteria for Imputation of Missing Data

A total of 34 participants did not finish the whole survey, which was until the last item of the Bergen Social Media Addiction Scale (BSMAS). Thus, these cases were counted as missing data and were manually deleted.

4.2.5 Defining and Processing of Statistical Outliers

Multivariate outliers and influential cases were assessed by using casewise diagnostics. There were 9 cases obtained from the results that exceeded a standard deviation of 2 which are cases 1, 14, 45, 72, 80, 88, 93, 105, and 142. Table 4.2.5 below shows the case number, Mahalanobis Distance, Cook’s Distance, and Centered Leverage Value of the 9 cases. (Refer to Appendix F)

Table 4.2.5

Case number, Mahalanobis Distance, Cook’s Distance, and Centered Leverage Value of 9 cases

Case Number	Mahalanobis Distance	Cook’s Distance	Centered Leverage Value
1	8.605	0.074	0.054

14	6.458	0.125	0.040
45	0.529	0.010	0.003
72	1.107	0.015	0.007
80	9.379	0.110	0.059
88	1.878	0.027	0.012
93	1.007	0.018	0.006
105	0.202	0.014	0.001
142	2.692	0.035	0.017

$Leverage: \frac{3+1}{161} \times 2 = 0.050$

Mahalanobis Distance was used to examine the potential outliers when the value is greater than 15 (Barnett & Lewis, 1994). No violations of Mahalanobis Distance were detected for all nine cases. Outliers can also be identified by using Cook's Distance when the Cook's Distance value is greater than 1 (Cook & Weisberg, 1982). The Cook's Distance values for all nine cases were not greater than 1. Therefore, there were no violations of Cook's Distance for all four cases. Cases that exceed Centered Leverage Values, which were above $\frac{p+1}{n} \times 2$, where p stands for independent variables, and n stands for total participants were considered as influential cases. For the Centered Leverage Value, cases 1 and 80 exceed the cutoff value of 0.050, and were considered as the violation cases. (Refer to Appendix F)

In conclusion, cases 1 and 80 only violated the Centered Leverage Value but did not violate the other two residual statistics which are Mahalanobis Distance and Cook's Distance. Thus, cases 1 and 80 were not considered as outliers. Since all nine cases were not considered as outliers, they were not deleted and were retained in the data set.

4.2.6 Data Transformation

Data transformation was utilized for reverse-scored items, which were item 1 of SAAS and items 9, 24, and 34 of the neuroticism subscale of the BFI. The scorings of reversed items were changed, where “1” was altered to “5”, “2” was altered to “4”, “3” was altered to “3”, “4” was altered to “2”, and “5” was altered to “1”.

4.3 Assumptions of Normality

4.3.1 Histogram

For the histogram, there were no violations of normality for all the four variables, which were social appearance anxiety, fear of missing out, neuroticism, and social media addiction. There were no severe abnormalities or observable skewness. (Refer to Appendix G)

4.3.2 P-P Plot

For the P-P plot, there were no violations of normality for all the variables, which were social appearance anxiety, fear of missing out, neuroticism, and social media addiction. The observed scores were shown to gather closely along the diagonal line. No observed deviation from the diagonal line reflected good normality. (Refer to Appendix G)

4.3.3 Skewness and Kurtosis

Table 4.3.3 below shows the values of skewness and kurtosis. For skewness and kurtosis, there were no violations of normality for all four variables, which were social

appearance anxiety, fear of missing out, neuroticism, and social media addiction. All values fall under the acceptable range for skewness and kurtosis, which were between -2 to +2 (George & Mallery, 2010). (Refer to Appendix G)

Table 4.3.3

Skewness and Kurtosis

Scale	Skewness	Kurtosis
SAAS	0.383	-0.913
FoMOs	0.256	-0.506
BFI (Neuroticism)	-0.301	-0.021
BSMAS	0.085	-0.331

4.3.4 Kolmogorov-Smirnov Test

For Kolmogorov-Smirnov test (K-S test), the *p*-value must be greater than 0.05, which indicated that there was no significant difference between the sample distribution with the normal distribution (Trochim & Donnelly, 2006). Among the four variables, only fear of missing out $D(161) = .068$, $p = .063$ was shown to have no violation of the K-S test, indicating that it was not significant and normal. The other three variables which were social appearance anxiety $D(161) = .094$, $p = .002$, neuroticism $D(161) = .080$, $p = .013$, and social media addiction $D(161) = .071$, $p = .047$ were shown to violate the K-S test, indicating that they were significant and not normal. (Refer to Appendix G)

4.3.5 Conclusion for Assumptions of Normality

In conclusion, there were no violations of normality found in P-P plot, histogram, and skewness and kurtosis. However, there were violations of normality found in K-S test for the variables of social appearance anxiety, neuroticism, and social media addiction, and only fear of missing out was shown to have no violation. According to all assumptions of normality, four out of five indicators have met the normality assumptions for all the variables, and thus the normality assumption was claimed to be achieved.

4.4 Assumptions of Multiple Linear Regression

4.4.1 Independence of Errors

The acceptable range of the Durbin-Watson test was from 1 to 3, and the closer the value is to 2 indicates that the assumptions were congruent, demonstrating a low correlation between errors (Kenton, 2023). Therefore, there was no violation as the Durbin-Watson value was 2.133. (Refer to Appendix H)

4.4.2 Multicollinearity

Multicollinearity is an undesired outcome because it indicated a high correlation between the predictors, which were social appearance anxiety, FoMO, and neuroticism. The tolerance value should not be lower than .10, and the VIF should not be greater than 10 (Miles, 2014). The tolerance values for all the predictors were shown to have no violation of the assumption of multicollinearity as all the values were larger than .10. All VIF values were smaller than 10, which shows no violation of the assumption of multicollinearity as well. (Refer to Appendix H)

4.4.3 Normality of Residual, Linearity, and Homoscedasticity

From the scatterplot, it was shown that the residuals formed an oval shape with random dispersion across the zero line, hence all three assumptions were not violated. (Refer to Appendix H)

4.4.4 Conclusion for Assumptions of Multiple Linear Regression

In conclusion, there were no violations for independence of errors, multicollinearity, residual, linearity, and homoscedasticity. Multiple linear regression analysis was proceeded.

4.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was used to evaluate the variables of social appearance anxiety, FoMO, neuroticism, and SMA. Preliminary analysis was done to ensure there were no multivariate outliers, no violations of the assumptions of normality, and no violations of the assumptions of multiple linear regression. The model was statistically significant $F(3, 157) = 27.76$, $p < 0.001$, and accounted for 33.4% of variance. It was found that social appearance anxiety ($\beta = .447$, $p < 0.001$) and FoMO ($\beta = .206$, $p = .024$) were statistically significant and positively predicted SMA. Neuroticism ($\beta = -.152$, $p = .025$) was found to be statistically significant but negatively predicted SMA. (Refer to Appendix I)

4.6 Data Analysis

H_1: Social appearance anxiety (SAA) positively predicts social media addiction among undergraduate students in Malaysia. (Supported)

Table 4.6.1

Data Analysis for H_1: Social appearance anxiety (SAA) positively predicts social media addiction among undergraduate students in Malaysia

Scale	*B*	*p*-value
SAAS	.447	.000

Dependent variable: BSMAS

Note. *p* is significant at $p < 0.05$

Table 4.6.1 indicated that social appearance anxiety ($\beta = .447$, $p < 0.001$) was significant and positively predicted SMA. The results were consistent with the hypothesis, thus H_1 was supported.

H_2: Fear of missing out (FoMO) positively predicts social media addiction among undergraduate students in Malaysia. (Supported)

Table 4.6.2

Data Analysis for H_2: Fear of missing out (FoMO) positively predicts social media addiction among undergraduate students in Malaysia.

Scale	*B*	*p*-value
FoMOs	.206	.024

Dependent variable: BSMAS

Note. *p* is significant at $p < 0.05$

Table 4.6.2 indicated that fear of missing out ($\beta = .206$, $p = .024$) was significant and positively predicted SMA. The results were consistent with the hypothesis, thus H_2 was supported.

H_3: Neuroticism positively predicts social media addiction among undergraduate students in Malaysia. (Not supported)

Table 4.6.3

Data Analysis for H_3: Neuroticism positively predicts social media addiction among undergraduate students in Malaysia.

Scale	*B*	*p*-value
BFI (Neuroticism)	-.152	.025

Dependent variable: BSMAS

Note. *p* is significant at $p < 0.05$

Table 4.6.3 indicated that neuroticism (β = -.152, p = .025) was significant but negatively predicted SMA. The results were not consistent with the hypothesis, thus H_3 was not supported.

4.7 Summary of Findings

Table 4.7

Summary of Findings

Hypotheses	Decision
H_1: Social appearance anxiety (SAA) positively predicts social media addiction among undergraduate students in Malaysia.	Supported
H_2: Fear of missing out (FoMO) positively predicts social media addiction among undergraduate students in Malaysia.	Supported
H_3: Neuroticism positively predicts social media addiction among undergraduate students in Malaysia.	Not supported

In conclusion, as presented in Table 4.7, hypotheses 1 and 2 were supported, but hypothesis 3 was not supported. The findings indicated that SAA and FoMO positively predicted SMA, whereas neuroticism negatively predicted SMA.

Chapter 5

Discussion and Conclusion

5.1 Constructive Discussion of Findings

H_1: Social appearance anxiety (SAA) positively predicts social media addiction among undergraduate students in Malaysia. (Supported)

The results shown in this study indicated that SAA significantly and positively predicted SMA among undergraduate students in Malaysia, which supported the first hypothesis. These findings were consistent with previous research on the predictive role of SAA in SMA (Aslan & Tolan, 2022; Papapanou et al., 2023; Yilmaz et al., 2023).

One of the potential explanations for this finding is that the use of coping strategies for SAA predicts SMA (Papapanou et al., 2023). Individuals with SAA often feel inadequate in social settings because they fear being negatively evaluated based on their appearance (Söyünmez et al., 2024). This lack of confidence leads them to seek platforms like social media, where they can control how they present themselves. The need to make a favourable impression without the pressure of face-to-face interaction pushes them to engage with social media, often leading to addictive patterns of use (Papapanou et al., 2023).

Additionally, social comparison and body image concerns in individuals with SAA may predict SMA (Boursier et al., 2020). The vast number of posts showcasing curated, edited, or even filtered versions of people's lives, especially their appearances, creates a pressure to conform to certain beauty standards. This makes SAA individuals more likely to engage in upward social comparisons, which can trigger anxiety about their own appearances (Caner et al., 2022). People with SAA are particularly sensitive to these comparisons, as they constantly measure their own appearance against the highly edited and idealized images they encounter online (Söyünmez et al., 2024). The pressure to achieve such idealized images can

prompt SAA individuals to spend more time on social media platforms, checking for updates, comparing their own images, and trying to align themselves with the ideal appearance that others portray (Boursier et al., 2020).

Moreover, the desire for validation and approval in people with SAA can predict SMA (İnik et al., 2024). Social media platforms are designed to provide instant feedback through likes, comments, and shares. People who are concerned about their appearance may turn to these platforms to seek social approval or validation by monitoring the responses (Söyünmez et al., 2024). The desire for positive feedback becomes a driving force behind social media use, as users post content in hopes of receiving affirming comments or likes. When this feedback is positive, it temporarily alleviates anxiety, but when it is lacking or negative, it can reinforce feelings of insecurity, leading the user to engage with social media even more in an attempt to fix their perceived inadequacy (Papapanou et al., 2023).

Furthermore, the need to manage online self-presentation and the behaviour-reward feedback loop in individuals with SAA may predict SMA (Boursier et al., 2020). People with SAA may feel that their self-worth is tied to how they appear online and how others perceive them (Söyünmez et al., 2024). High SAA individuals are often dissatisfied with their physical appearance and seek ways to control and enhance their self-presentation (Söyünmez et al., 2024). Social media platforms offer opportunities to engage in this self-presentation, primarily through photos, selfies, and videos, which are often curated and edited to present an idealized image (Papapanou et al., 2023). This need for self-presentation is amplified by the reward-driven nature of social media interactions. When individuals share selfies or other visual content, they often receive feedback in the form of likes, comments, and shares, which reinforces their behavior and boosts their self-esteem. This process is known as the behavior-reward feedback loop, which has been linked to addictive social media use behaviours (Boursier et al., 2020).

H_2: Fear of missing out (FoMO) positively predicts social media addiction among undergraduate students in Malaysia. (Supported)

The findings of this study corroborated the hypothesis that fear of missing out (FoMO) was a significant positive predictor of social media addiction (SMA) among undergraduate students in Malaysia. These results were consistent with prior research, which had similarly emphasized the link between FoMO and a heightened likelihood of experiencing SMA symptoms (Brailovskaia & Margraf, 2023; Sun et al., 2022). Furthermore, the earlier work of Tunc-Aksan and Akbay (2019) offers additional context for the present study by demonstrating a strong association between FoMO and SMA. Their findings underscore the necessity of recognizing FoMO as a critical risk factor for problematic social media use, particularly in the context of undergraduate students.

Present results indicate a strong positive correlation between FoMO and SMA, suggesting that higher levels of FoMO are associated with increased SMA. This association can be understood through self-determination theory, which emphasizes the role of motivation in shaping behaviour and its underlying processes. The theory identifies three fundamental psychological needs essential for motivation: relatedness, competence, and autonomy. Individuals experiencing heightened FoMO are more likely to engage in behaviours that strengthen their sense of self and identity, often through increased use of social media platforms (Varchetta et al., 2020). Social media facilitates the fulfilment of these psychological needs by providing users with autonomy to curate and express their online persona (Wei et al., 2022), relatedness through interaction and connection with others (Lemay et al., 2019), and competence by offering opportunities to achieve, develop skills, and demonstrate abilities (Wei et al., 2022). As a result, individuals with elevated FoMO are drawn to social media to meet these intrinsic needs, which may subsequently lead to the development of SMA.

H_3: Neuroticism positively predicts social media addiction among undergraduate students in Malaysia. (Not supported)

The results of the current study found that neuroticism negatively predicted SMA among undergraduate students in Malaysia, which was inconsistent with the hypothesis, and thus H_3 was not supported. The current study's results accorded with the findings stating that there was an indirect relationship (Dilawar et al., 2022) and a negative significant correlation between neuroticism and SMA (Tang et al., 2016).

This may be due to individuals with high neuroticism traits, including excessive worry, anxiety, insecurity, and emotional instability (Barrick & Mount, 1991) denoted low self-worth and feelings of a lack of social acceptance (Judge & Bono, 2001). This, in turn, causes them to be more likely to experience low self-esteem (Yao, 2020). This was supported by Hufer-Thamm and Riemann (2021) that neuroticism had a negative correlation with self-esteem.

Social media platforms grant the ability of social media users to get positive feedback including encouraging comments or likes on what they post from other users (Marengo et al., 2021). Social media users perceive positive comments received on social media as a form of social gratification (Rosenthal-von der Pütten et al., 2019) and likes as a form of social acceptance (Burrow & Rainone, 2017). Those who post more, including photos, or mentioning of peers and location are more likely to receive higher frequency and intensity of positive feedback on their posts (Marengo et al., 2021). However, even though individuals with high levels of neuroticism did make status updates and leave comments, there were less likes received on their posts as compared to emotionally stable people (Burrow & Rainone, 2017). This was consistent with findings from Marengo et al. (2020) that neurotics were unable to get more positive feedback from social media use. Stronger responses are also

typically received by those who are more eager to disclose more about themselves on their social media profiles (Marengo et al., 2021). Since self-disclosure is associated with self-esteem (Luo & Hancock, 2020), and high self-esteem levels indirectly prompted a higher intensity of positive social media feedback (Marengo et al., 2021), hence individuals with high neuroticism traits tend to post less due to lower tendency of self-disclosure caused by low self-esteem, and thus received less positive feedback.

Since the intensity of positive feedback increases self-esteem indirectly (Marengo et al., 2021), it can be concluded that neurotic individuals, who naturally tend to experience lower levels of self-esteem, are again, unable to acquire higher self-esteem from social media use due to the lack of positive feedback which is also caused by lower rates of self-disclosure. This negative loop in turn causes undergraduate students with high neuroticism levels to reduce social media use, thus resulting in the results of neuroticism traits being a negative predictor of SMA.

Furthermore, social media fatigue (SMF) might be the reason neuroticism negatively predicted SMA. According to Nurhamidin & Huwae (2024), one of the variables contributing to SMF is neuroticism, and they are positively correlated (Sunil et al., 2022). SMF causes negative attitudes toward social media activities, such as feelings of exhaustion, boredom, disinterest, and apathy (Yan et al., 2022), as well as low contentment, social media worries, and emotional anxiety (Ashiru et al., 2022), thus leading to a lower tendency toward social media engagement (Talwar et al., 2019). Neurotics react negatively to adverse environmental triggers, perceive everyday events as dangerous, and get overwhelmed by small annoyances (Nurhamidin & Huwae, 2024). Higher neuroticism levels indicate higher levels of anxiety and lower levels of emotional stability, which leads to stronger SMF than others who are less nervous (Świątek et al., 2021). On social media, users are unable to engage in the same social relationships that they would in an offline setting (Liu & He, 2021). Since individuals with

high levels of neuroticism do not frequently share new updates online (Bowden-Green et al., 2021), do not frequently engage in online social interaction through likes or comments (Kaur et al., 2021), and have a higher tendency to post negative contents (Brock et al., 2022), it is apparent why this passive use of social media does not garner a lot of followers or friendships online (Sheng et al., 2023). Since online interaction is unable to create balance in human connections, it results in feelings of emptiness and meaninglessness (Nurhamidin & Huwae, 2024), leading to lower use of social media among undergraduate students with high levels of neuroticism.

Additionally, neurotic individuals may avoid social media due to online social comparison (Malik et al., 2021). Social media users frequently portray themselves as having an ideal life, which can make other users feel envious and unhappy with their own lives, and even cause low self-esteem (Hunt et al., 2018). Social media comparisons cause negative self-evaluations within individuals with high levels of neuroticism, leading to decreased social media use due to heightened worry and decreased self-confidence (Liu & He, 2021). Thus, undergraduate students with high levels of neuroticism may cut down on social media use as it causes feelings of dissatisfaction and guilt, and other triggers that increased anxiety and depression levels (Nurhamidin & Huwae, 2024).

5.2 Implications of Study

5.2.1 Theoretical Implication for Future Research

The present research explores the predicting effect of social appearance anxiety (SAA), fear of missing out (FoMO), and neuroticism on social media addiction (SMA) among undergraduate students in Malaysia. Self-determination theory (SDT), which defines three fundamental psychological needs, namely competence, relatedness, and autonomy as

crucial in generating motivation, explains the predictive effects of neuroticism and FoMO on SMA. The findings indicate that neuroticism negatively predicts SMA, as individuals with high neurotic traits are less likely to engage in frequent posting due to a lower tendency for self-disclosure stemming from low self-esteem, resulting in reduced positive feedback. However, other studies suggest that individuals with high neuroticism may exhibit increased social media engagement (Marciano et al., 2021). Future research could further explore the role of the three basic psychological needs outlined by SDT in influencing SMA, particularly in relation to neuroticism. Expanding SDT to encompass digital addiction and neuroticism may offer deeper insights into the dynamics of media usage patterns and their impact on well-being among undergraduate students in Malaysia.

Self-objectification theory provides a framework for understanding the predictive effect of SAA on SMA. According to this theory, appearance anxiety arises from the internalization of external standards as personal benchmarks for self-evaluation (Gao et al., 2023). Prior research has consistently linked social media usage to perceptions of ideal body image, appearance anxiety, and self-objectification (Söyünmez et al., 2024), aligning with the hypothesis of the current study. Individuals with elevated levels of social appearance anxiety (SAA) often strive to present an idealized image of themselves, driven by societal and social media pressures. This pursuit contributes to increased self-objectification and heightened SAA. Therefore, the findings of this study validate the relevance of self-objectification theory in explaining SMA and contribute to the expanding body of evidence supporting its utility in this context. By addressing these theoretical implications, future research can further investigate the intricate relationships between SAA, FoMO, and neuroticism in predicting SMA.

5.2.2 Practical Implication for Programs and Policies.

Investigating the predicting effect of social appearance anxiety (SAA), fear of missing out (FoMO), and neuroticism as predictors of SMA among undergraduate students in Malaysia holds considerable implications for both individuals and society in future research endeavors. Understanding these dynamics can inform the development of interventions aimed at enhancing the digital well-being of university students and provide valuable insights into the psychological consequences associated with social media utilization (Ostic et al., 2021).

By identifying factors that contribute to SMA, including elevated levels of SAA, FoMO, and neuroticism, researchers can design targeted intervention programs to mitigate detrimental social media usage behaviors. Such interventions may encompass initiatives like organizing seminars (Abellana et al., 2024), implementing regulations on social media platforms (Pellegrino et al., 2022), and offering counseling services (Plackett et al., 2023).

Moreover, raising awareness about the potential risks linked to excessive social media engagement such as sleep disturbances, reduced social engagement, declines in academic performance, and altered behavioral patterns can empower undergraduates to make informed decisions regarding their digital habits (Mofatteh, 2020; Tunc-Aksan & Evin, 2019). This effort could be facilitated through government and educational institutions that provide educational interventions like seminars and workshops. Furthermore, mental health professionals can offer counseling services that deliver personalized support and coping strategies, aiming to decrease students' dependence on social media for validation and stress relief.

Additionally, it is essential for social media platforms to strengthen their terms of service and regulations concerning digital usage. Collaboration between universities and policymakers is necessary to formulate evidence-based policies and guidelines addressing the

fundamental causes of social media addiction while promoting digital well-being among students. Digital literacy education should be emphasized, as it equips students with the skills to make well-informed decisions, fosters ethical conduct in online environments, and enhances resilience against digital vulnerabilities. Through these measures, students can improve their overall digital well-being and develop the capabilities to navigate the digital landscape as responsible and empowered individuals (Sun et al., 2022). Consequently, our findings underscored the importance of understanding how SAA, FoMO, and neuroticism leads to SMA within the context of undergraduate students in Malaysia.

5.3 Limitations of Study

In order to accurately interpret and apply the findings, it is essential to consider the limitations of this current research. The study's first limitation lies in the sampling bias that occurred during data collection. This will affect the generalization of the results to the broader population, which comprises all undergraduate students in Malaysia (Ahmed, 2024). For example, due to the use of a non-probability sampling method, specifically purposive sampling, the majority of participants in this study are Chinese (87.0%), female (61.5%), and enrolled at UTAR (88.8%). Hence, the limited diversity in the sample, particularly in terms of demographics, cultural backgrounds, and academic settings, may result in biased and inaccurate findings.

Furthermore, the second limitation of this present study is the potential for response bias in the survey, which can lead to inaccurate and erroneous study conclusions (Latkin et al., 2017). Self-report measures, such as online surveys or questionnaires, are prone to various biases, such as social desirability bias (where participants provide answers they believe are socially acceptable) or recall bias (where participants misremember or fail to

accurately recall past experiences). These biases can affect the accuracy of the findings, especially when participants are asked about sensitive topics like social appearance anxiety, FoMO, or social media addiction.

Besides that, the third limitation of the present research lies in the use of a cross-sectional design. This approach, which gathers data from a single sample at one specific point in time, restricts the ability to observe how social media use behaviours, and psychological factors such as SAA, FoMO and neuroticism may evolve over time (Taris et al., 2021). Furthermore, SMA is often influenced by a range of external factors that can fluctuate, such as changes in societal trends, platform updates, or shifts in personal circumstances. A cross-sectional study cannot account for these temporal factors, potentially leading to a limited understanding of the long-term or evolving roles of predictors like SAA, FoMO and neuroticism on social media addiction.

5.4 Recommendations for Future Research

To address the first limitation identified in this current research, it is recommended that future research adopt a probability sampling method, such as stratified sampling. The current study's sampling approach may have led to a sample that does not fully represent the broader population, potentially introducing bias and limiting the generalizability of the findings. By using stratified sampling, researchers can divide the population into distinct subgroups or strata, such as gender, race or academic background, and ensure adequate representation of every subgroup in the sample (Reddy & Khan, 2023). This approach not only helps to guarantee more balanced representation but also allows for a more comprehensive examination of predicting roles of SAA, FoMO and neuroticism on social media addiction.

To address the response bias limitation in the current study, a mixed-methods approach is recommended for future research. This approach, which combines both quantitative and qualitative data collection techniques, offers a more comprehensive and balanced understanding of the issue at hand while minimizing some of the biases inherent in self-reported data (Adu et al., 2022). By incorporating qualitative methods such as interviews or focus groups, researchers can explore participants' experiences in a more open and conversational context. This method can reduce the pressure to conform to socially desirable answers, as participants might feel more comfortable elaborating on their feelings and behaviors in a private, in-depth interview rather than a standardized questionnaire. Through qualitative approaches, participants may be able to describe their emotional experiences and reasons for social media use in their own words, helping to uncover underlying motivations that are not easily captured in self-report scales. For instance, an interview could reveal nuanced insights about how a participant's SAA, FoMO or neurotic tendencies predict their social media habits in ways that a survey question may not fully capture.

Lastly, to address the third limitation, future research can employ longitudinal design. Social media addiction and psychological factors such as social appearance anxiety, FOMO, and neuroticism are dynamic and evolve over time (Bala, 2020). By collecting data over extended periods, longitudinal studies reduce the risk of one-time biases or anomalies that can occur in cross-sectional studies. The ability to collect repeated measures from the same participants allows for more reliable and consistent findings.

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Appendixes

Appendix A: Questionnaire

Introduction

We would like to conduct a research study to examine social appearance anxiety (SAA), fear of missing out (FoMO), and neuroticism as predictors of social media addiction (SMA) among undergraduate students in Malaysia.

Procedures and Confidentiality

The following questionnaire will require approximately 10-15 minutes to complete. All information provided will remain as private and confidential. The information given will only be reported as group data with no identifying information and only use for academic purpose.

Participation

All the information gathered will remain anonymous and confidential. Your information will not be disclosed to any unauthorised person and would be accessible only by group members. Participant in this study is voluntary, you are free to withdraw with consent and discontinue participation in anytime without prejudice. Your responses will be coded numerically in the research assignment for the research interpretation. Your cooperation would be greatly appreciated.

We are recruiting undergraduate students in Malaysia. If you choose to participate in this project, please answer all the questions as honestly as possible and return the completed questionnaire promptly.

→

Personal Data Protection Statement

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

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:
-For assessment of any application to UTAR
-For processing any benefits and services
-For communication purposes
-For advertorial and news
-For general administration and record purposes
-For enhancing the value of education
-For educational and related purposes consequential to UTAR
-For the purpose of our corporate governance
-For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. You may access and update your personal data by writing to us at:

Jaclyn Goh Shi Xin
jaclyngsx047@1utar.my
Janice Chan Cheng Yee
janicec88@1utar.my
Koh Qin Xuan
kohqx8686@1utar.my

→

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Consent Form

I understand that

I will be asked to complete a questionnaire about social appearance anxiety (SAA), fear of missing out (FoMO), and neuroticism as predictors of social media addiction (SMA) among undergraduate students in Malaysia.

- ◯ Yes
- ◯ No

→

Powered by Qualtrics

My participation is voluntary, I can choose not to participate in part or all of the project, and I can withdraw at any stage without being penalized or disadvantaged in any way.

- ◯ Yes
- ◯ No

→

Powered by Qualtrics

I may ask at any time for my data to be withdrawn from the project.

- ◯ Yes
- ◯ No

→

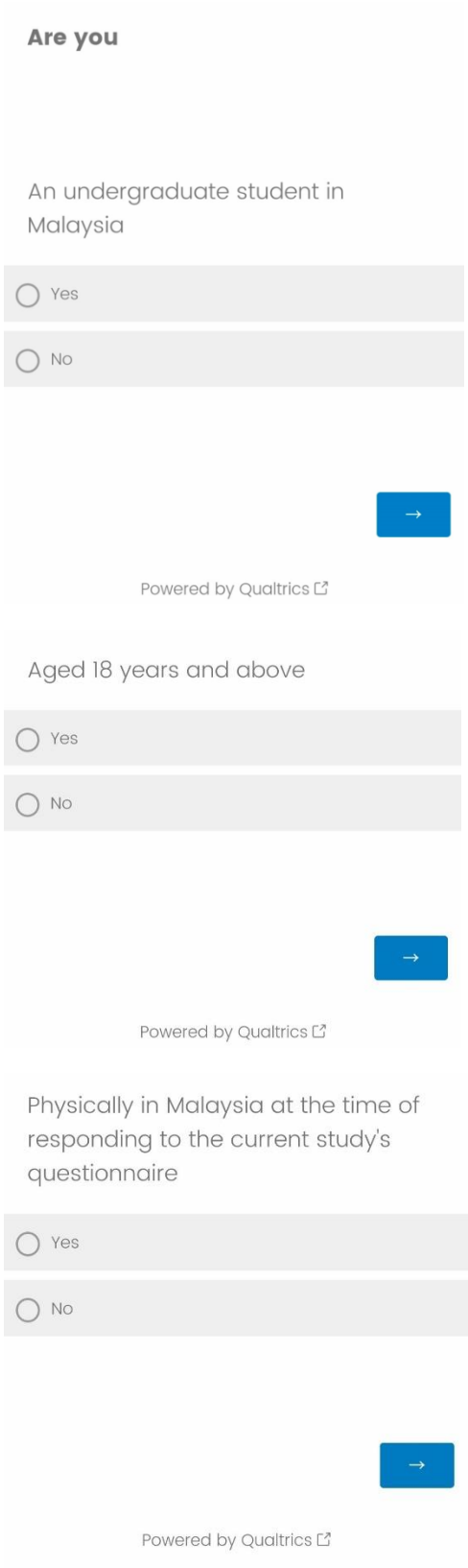
Powered by Qualtrics

Do you acknowledge the risks and liabilities associated with the current study and accepts the requirement for informed consent

- ◯ I have been notified, and I hereby understood, consented and agreed per UTAR above notice.
- ◯ I disagree, my personal data will not be processed.

→

Powered by Qualtrics


Are you
An undergraduate student in Malaysia
Yes
No
→
Powered by Qualtrics
Aged 18 years and above
Yes
No
→
Powered by Qualtrics
Physically in Malaysia at the time of responding to the current study's questionnaire
Yes
No
→
Powered by Qualtrics

Demographic

Age

Gender

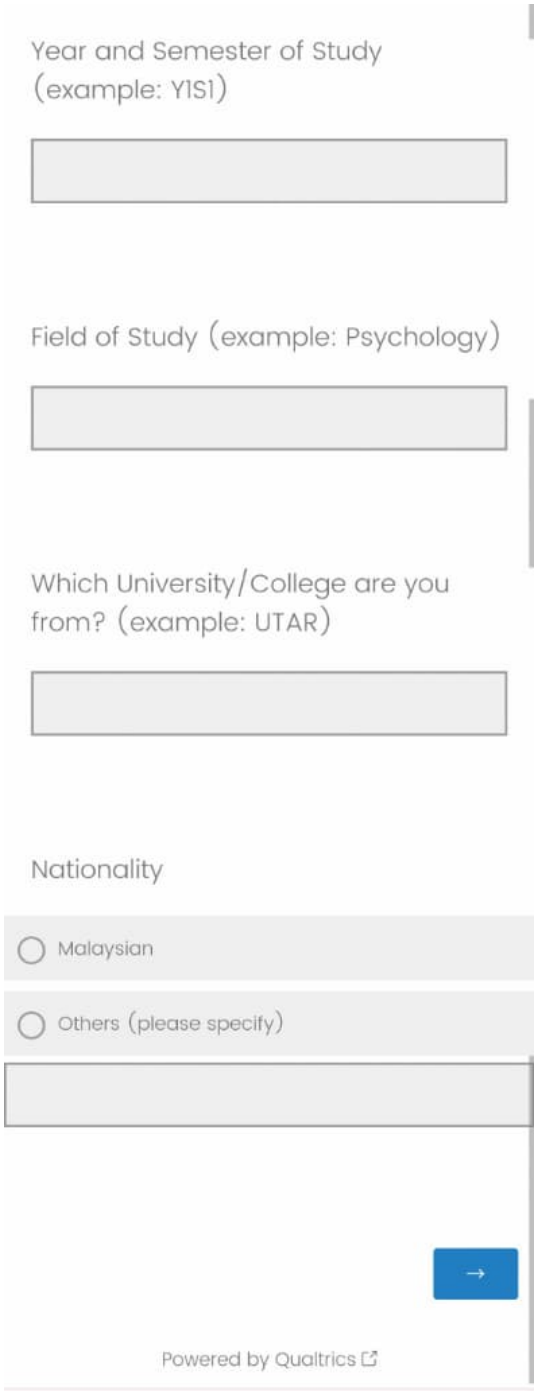
- Male
- Female
- Non-binary / third gender
- Prefer not to say

Ethnicity

- Malay
- Chinese
- Indian
- Others (please specify)

Religion

- Muslim
- Buddhist
- Hindu
- Christian
- Others (please specify)


Year and Semester of Study (example: Y1S1)
Field of Study (example: Psychology)
Which University/College are you from? (example: UTAR)
Nationality
Malaysian
Others (please specify)
→
Powered by Qualtrics

Social Appearance Anxiety Scale (SAAS)

Instructions: The following 16 items measures social appearance anxiety levels. Please choose the number that best describes how you feel.

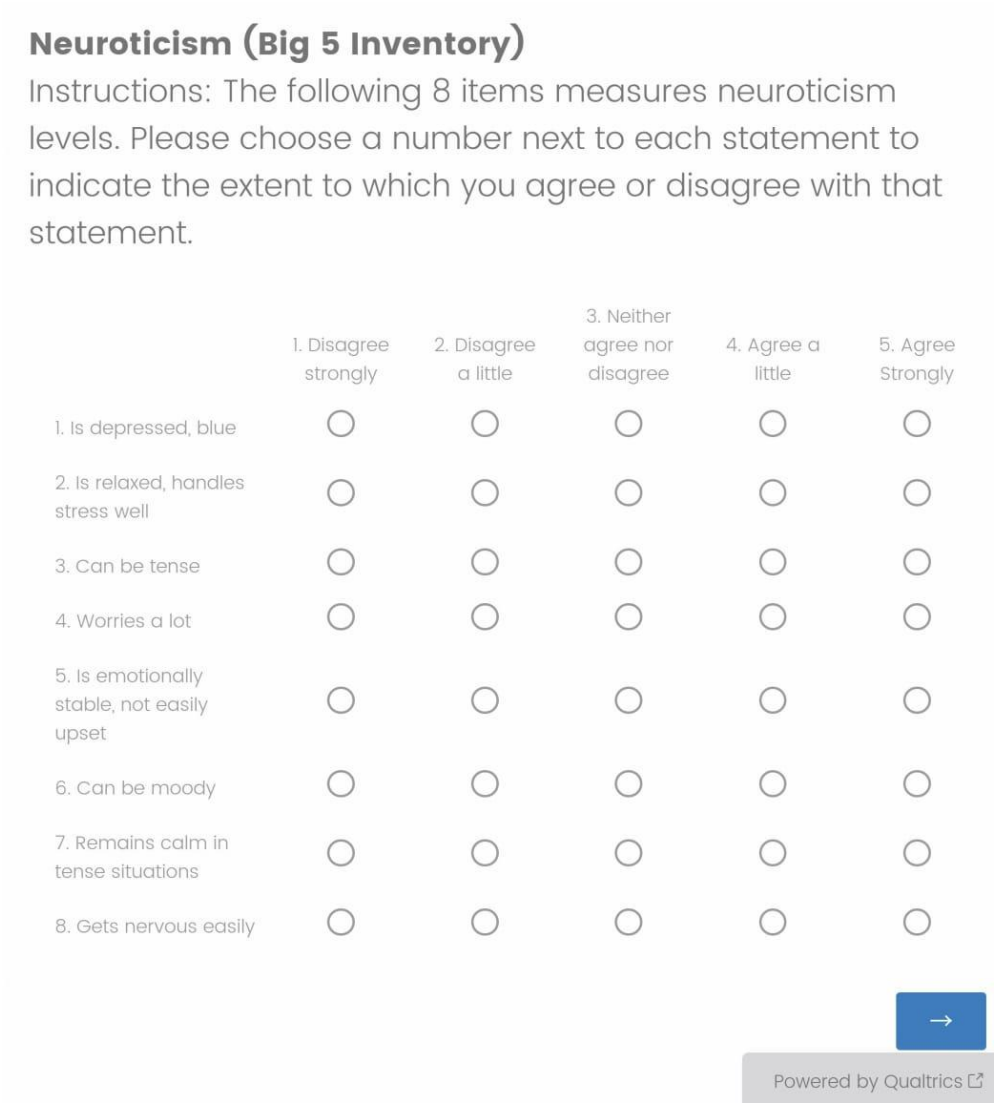
	1- Not at all	2- A little	3- Moderately	4- Very much	5- Extremely
1. I feel comfortable with the way I appear to others.	○	○	○	○	○
2. I feel nervous when having my picture taken.	○	○	○	○	○
3. I get tense when it is obvious people are looking at me.	○	○	○	○	○
4. I am concerned people would not like me because of the way I look.	○	○	○	○	○
5. I worry that others talk about flaws in my appearance when I am not around.	○	○	○	○	○
6. I am concerned people will find me unappealing because of my appearance.	○	○	○	○	○
7. I am afraid that people find me unattractive.	○	○	○	○	○
8. I worry that my appearance will make life more difficult for me.	○	○	○	○	○
9. I am concerned that I have missed out on opportunities because of my appearance.	○	○	○	○	○
10. I get nervous when talking to people because of the way I look.	○	○	○	○	○
11. I feel anxious when other people say something about my appearance.	○	○	○	○	○
12. I am frequently afraid I would not meet others' standards of how I should look.	○	○	○	○	○
13. I worry people will judge the way I look negatively.	○	○	○	○	○
14. I am uncomfortable when I think others are noticing flaws in my appearance.	○	○	○	○	○
15. I worry that a romantic partner will/would leave me because of my appearance.	○	○	○	○	○
16. I am concerned that people think I am not good looking.	○	○	○	○	○

Fear of Missing Out Scale (FoMOs)

Instructions: Below is a collection of statements about your everyday experience. Using the scale provided please indicate how true each statement is of your general experiences. Please answer according to what really reflects your experiences rather than what you think your experiences should be. Please treat each item separately from every other item.

	1. Not at all true of me	2. Slightly true of me	3. Moderately true of me	4. Very true of me	5. Extremely true of me
1. I fear others have more rewarding experiences than me.	○	○	○	○	○
2. I fear my friends have more rewarding experiences than me.	○	○	○	○	○
3. I get worried when I find out my friends are having fun without me.	○	○	○	○	○
4. I get anxious when I don't know what my friends are up to.	○	○	○	○	○
5. It is important that I understand my friends "in jokes."	○	○	○	○	○
6. Sometimes, I wonder if I spend too much time keeping up with what is going on.	○	○	○	○	○
7. It bothers me when I miss an opportunity to meet up with friends.	○	○	○	○	○
8. When I have a good time it is important for me to share the details online (e.g. updating status).	○	○	○	○	○
9. When I miss out on a planned get-together it bothers me.	○	○	○	○	○
10. When I go on vacation, I continue to keep tabs on what my friends are doing.	○	○	○	○	○

→



Neuroticism (Big 5 Inventory)

Instructions: The following 8 items measures neuroticism levels. Please choose a number next to each statement to indicate the extent to which you agree or disagree with that statement.

	1. Disagree strongly	2. Disagree a little	3. Neither agree nor disagree	4. Agree a little	5. Agree Strongly
1. Is depressed, blue	○	○	○	○	○
2. Is relaxed, handles stress well	○	○	○	○	○
3. Can be tense	○	○	○	○	○
4. Worries a lot	○	○	○	○	○
5. Is emotionally stable, not easily upset	○	○	○	○	○
6. Can be moody	○	○	○	○	○
7. Remains calm in tense situations	○	○	○	○	○
8. Gets nervous easily	○	○	○	○	○

→

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Bergen Social Media Addiction Scale (BSMAS)

Instructions: The following 6 items measures your relationship with social media. Please choose the number that best describes how true each statement is of your general experiences.

	1. very rarely	2. rarely	3. sometimes	4. often	5. very often
1. You spend a lot of time thinking about social media or planning how to use it.	○	○	○	○	○
2. You feel an urge to use social media more and more.	○	○	○	○	○
3. You use social media in order to forget about personal problems.	○	○	○	○	○
4. You have tried to cut down on the use of social media without success.	○	○	○	○	○
5. You become restless or troubled if you are prohibited from using social media.	○	○	○	○	○
6. You use social media so much that it has had a negative impact on your job/studies.	○	○	○	○	○

→

Powered by Qualtrics

Appendix B: Ethical Approval for Research Project

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

Re: U/SERC/78-361/2024

18 September 2024

Mr Tay Kok Wai
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 Mr Tay,

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 Expedited Review.

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Social Appearance Anxiety, Fear of Missing Out, and Neuroticism as Predictors of Social Media Addiction (SMA) Among Undergraduate Students in Malaysia	1. Jaclyn Goh Shi Xin 2. Janice Chan Cheng Yee 3. Koh Qin Xuan	Ms Teoh Xi Yao	18 September 2024 – 17 September 2025

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

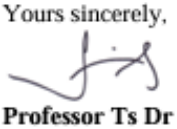
(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(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

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia
Tel: (605) 468 8888 Fax: (605) 466 1313
Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia
Tel: (603) 9086 0288 Fax: (603) 9019 8868
Website: www.utar.edu.my

Appendix C: Calculation of Sample Size

Predictor 1: **Social appearance anxiety**

r = 0.54 (Üngüren & Tekin, 2023)

$$f_1^2 = \frac{r^2}{1 - r^2}$$

$$= \frac{(0.54)^2}{1-(0.54)^2}$$

$$= 0.412$$

Table 2. Correlation matrix, convergent and discriminant validity value.

	1	2	3	4	5	α	CR	AVE	HTMT				
									1	2	3	4	5
1. SOCDIS	[0.88]					0.97	0.97	0.78	-				
2. SCMAD	0.43***	[0.85]				0.96	0.96	0.71	0.43				
3. SAANX	0.32***	0.54***	[0.88]			0.98	0.98	0.78	0.32	0.54			
4. SLFEFF	−0.18***	−0.21***	−0.39***	[0.80]		0.95	0.95	0.65	0.18	0.20	0.40		
5. CARINT	−0.17***	−0.26***	−0.42***	0.69***	[0.84]	0.94	0.94	0.71	0.17	0.26	0.43	0.71	–
6. PHYACT	0.06	−.046**	−0.30**	0.14**	0.17**	–	–	–	–	–	–	–	–

SCDIS: Social Disconnectedness, SOCMAD: Social Media Addiction, SAANX: Social Appearance Anxiety, SLFEFF: Self-efficacy, CARINT: Career Intentions, PHYACT: Physical Activity, α: Cronbach alfa, CR: Construct Reliability; AVE: Average variance extracted, [] = The square root values of AVE, ***p < 0.01.

Üngüren, E., & Tekin, Ö. A. (2023). The effects of social disconnectedness, social media addiction, and social appearance anxiety on tourism students' career intentions: The moderating role of self-efficacy and physical activity. Journal of Hospitality, Leisure, Sport & Tourism Education, 33, 100463. https://www.sciencedirect.com/science/article/abs/pii/S1473837623000473

Predictor 2: **Fear of missing out (FoMO)**

r = 0.443 (Brailovskaia & Margraf, 2024)

$$f_2^2 = \frac{r^2}{1 - r^2}$$

$$= \frac{(0.443)^2}{1-(0.443)^2}$$

$$= 0.244$$

Table 2. Zero-order bivariate correlations between FoMO, SM flow (overall and subscales), addictive SMU, and mindfulness.

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) FoMO	.379**	.236**	.193**	.344**	.228**	.307**	.443**	-.240**
(2) SM Flow		.656**	.613**	.744**	.757**	.726**	.604**	-.014
(3) SM Flow: 'Curiosity'			.560**	.334**	.278**	.223**	.267**	.066*
(4) SM Flow: 'Enjoyment'				.294**	.294**	.140**	.184**	.103*
(5) SM Flow: 'Time-Distortion'					.485**	.459**	.608**	-.039
(6) SM Flow: 'Focused Attention'						.572**	.422**	-.005
(7) SM Flow: 'Telepresence'							.569**	-.132**
(8) Addictive SMU								-.142**
(9) Mindfulness								

Notes. N = 905; FoMO = Fear of Missing Out; SM = Social Media; SMU = Social Media Use; correlations of the SM flow scales are included for the Discussion section; $^{**}p < .001$, $^{*}p < .05$.

Brailovskaia, J., & Margraf, J. (2024). From fear of missing out (FoMO) to addictive social media use: The role of social media flow and mindfulness. *Computers in Human Behavior, 150,* 107984. https://www.sciencedirect.com/science/article/abs/pii/S0747563223003357

Predictor 3: **Neuroticism**

$r = -0.076$ (Mercan & Uysal, 2023)

$$f_3^2 = \frac{r^2}{1 - r^2}$$

$$= \frac{(-0.076)^2}{1-(-0.076)^2}$$

$$= 0.00581$$

Table 1. The analysis on the correlation of short-form five factor personality inventory and its sub-dimensions with social media addiction scale and its sub-dimensions (Pearson test) $N = 244$.

Scales and sub-dimensions		1.	1.1.	1.2.	1.3.	1.4.	1.5.	2.	2.1.	2.2.
1. Short form five-factor personality inventory	r	1								
1.1. Extraversion	r	0.591**	1							
	p	0.000								
1.2. Agreeableness	r	0.715**	0.275**	1						
	p	0.000	0.000							
1.3. Conscientiousness	r	0.707**	0.202**	0.470**	1					
	p	0.000	0.002	0.000						
1.4. Neuroticism	r	0.664**	0.307**	0.256**	0.263**	1				
	p	0.000	0.000	0.000	0.000					
1.5. Openness to improvement	r	0.752**	0.355**	0.495**	0.480**	0.308**	1			
	p	0.000	0.000	0.000	0.000	0.000				
2. Social media addiction	r	0.170**	−0.028	0.169**	0.324**	−0.076	0.214**	1		
	p	0.008	0.664	0.008	0.000	0.238	0.001			

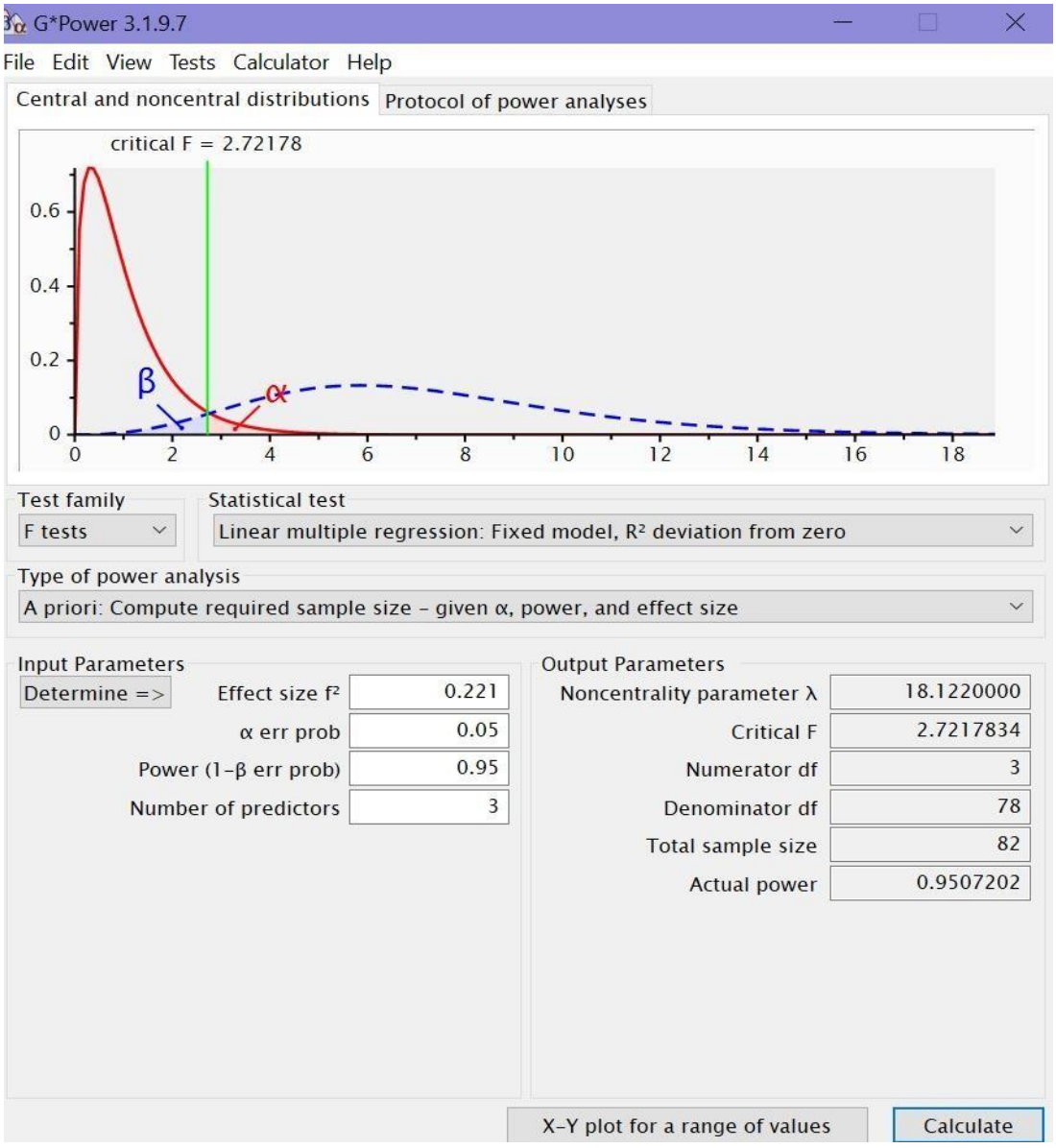
Mercan, N., & Uysal, B. (2023). The relationship of social media addiction with interpersonalproblem-solving and personality traits in university students. *Archives of Psychiatric Nursing, 43,* 50–56. https://www.sciencedirect.com/science/article/abs/pii/S0883941722001741

Effect size:

$$f^2 = \frac{0.412 + 0.244 + 0.00581}{3}$$

$$= 0.221$$

Sample size = 82 participants



Appendix D: Inter-item Reliabilities

Cronbach's Alpha for:

SAAS = 0.934

Reliability Statistics

Cronbach's Alpha	N of Items
.934	16

FoMOs = 0.867

Reliability Statistics

Cronbach's Alpha	N of Items
.867	10

BFI (Neuroticism) = 0.707

Reliability Statistics

Cronbach's Alpha	N of Items
.707	8

BSMAS = 0.804

Reliability Statistics

Cronbach's Alpha	N of Items
.804	6

Appendix E: Descriptive Statistics

Statistics

		Sum_SAAS	Sum_FoMO	Sum_N	Sum_BSMAS
N	Valid	161	161	161	161
	Missing	0	0	0	0
Mean		38.78	24.42	25.55	16.07
Std. Deviation		13.031	8.031	4.541	4.857
Minimum		17	10	12	6
Maximum		71	46	35	30
Percentiles	25	27.00	18.00	23.00	12.00
	50	36.00	24.00	26.00	16.00
	75	49.50	30.00	29.00	19.00

Appendix F: Multivariate Outliers

Casewise Diagnostics Table

Casewise Diagnostics[a]

Case Number	Std. Residual	Sum_BSMAS	Predicted Value	Residual
1	2.081	30	21.75	8.248
14	-3.122	10	22.37	-12.373
45	-2.035	10	18.07	-8.066
72	-2.103	8	16.33	-8.334
80	2.432	24	14.36	9.639
88	2.395	24	14.51	9.492
93	2.345	23	13.71	9.293
105	2.717	26	15.23	10.771
142	2.407	22	12.46	9.539

a. Dependent Variable: Sum_BSMAS

Case Summaries Table

Case Summaries[a]

			Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
Group_ID	0	1	2	2.44898	.00436	.01531
		2	3	2.10206	.00046	.01314
		3	4	.65476	.00140	.00409
		4	5	.11851	.00007	.00074
		5	6	1.67878	.00003	.01049
		6	7	3.45228	.01574	.02158
		7	8	2.52678	.00094	.01579
		8	9	7.37467	.00075	.04609
		9	10	1.10193	.00244	.00689
		10	11	.60060	.00084	.00375
		11	12	1.02452	.00682	.00640
		12	13	2.89543	.00447	.01810
		13	15	6.11750	.00085	.03823
		14	16	.20948	.00002	.00131
		15	17	1.36120	.00046	.00851
		16	18	.19048	.00026	.00119
		17	19	4.47336	.01006	.02796
		18	20	2.85233	.00527	.01783
		19	21	.74317	.00021	.00464
		20	22	2.66730	.00136	.01667
		21	23	1.78920	.00022	.01118
		22	24	.30581	.00079	.00191
		23	25	.49761	.00003	.00311

24	26	3.53891	.00004	.02212
25	27	3.34815	.00024	.02093
26	28	.72442	.00103	.00453
27	29	.67737	.00241	.00423
28	30	2.41727	.00058	.01511
29	31	.17410	.00051	.00109
30	32	1.84764	.00144	.01155
31	33	5.50083	.02513	.03438
32	34	5.01128	.00005	.03132
33	35	.86543	.00022	.00541
34	36	3.19638	.00946	.01998
35	37	.17884	.00003	.00112
36	38	4.66744	.00240	.02917
37	39	3.06259	.01182	.01914
38	40	2.76103	.00742	.01726
39	41	3.57960	.00140	.02237
40	42	1.14170	.00024	.00714
41	43	6.28607	.04462	.03929
42	44	.37003	.00094	.00231
43	46	1.52738	.01119	.00955
44	47	1.43928	.00261	.00900
45	48	3.21859	.00141	.02012
46	49	5.56600	.01874	.03479
47	50	.03662	.00002	.00023
48	51	3.66800	.00008	.02293
49	52	6.17307	.01112	.03858
50	53	2.08495	.00001	.01303

51	54	3.20805	.00094	.02005
52	55	.73750	.00093	.00461
53	56	4.05773	.00916	.02536
54	57	2.39678	.00749	.01498
55	58	2.27984	.00000	.01425
56	59	3.61081	.01187	.02257
57	60	1.69359	.00032	.01058
58	61	2.79389	.01344	.01746
59	62	2.09538	.00058	.01310
60	63	2.92970	.00000	.01831
61	64	1.49958	.00035	.00937
62	65	1.53537	.00338	.00960
63	66	9.34311	.00004	.05839
64	67	5.98835	.01908	.03743
65	68	1.00676	.00156	.00629
66	69	4.18476	.00009	.02615
67	70	1.88173	.00004	.01176
68	71	1.09365	.00079	.00684
69	73	1.24229	.00160	.00776
70	74	3.43112	.00008	.02144
71	75	.57801	.00001	.00361
72	76	3.13297	.00237	.01958
73	77	1.00464	.00037	.00628
74	78	1.31881	.00000	.00824
75	79	2.74276	.00448	.01714
76	81	5.41578	.00099	.03385
77	82	.65885	.00054	.00412

78	83	2.13895	.00021	.01337
79	84	3.21304	.01457	.02008
80	85	2.01652	.00607	.01260
81	86	5.36203	.01093	.03351
82	87	5.12845	.01144	.03205
83	89	6.64129	.00859	.04151
84	90	8.05953	.04859	.05037
85	91	1.81235	.00215	.01133
86	92	2.82400	.00382	.01765
87	94	3.86246	.00024	.02414
88	95	2.19498	.00000	.01372
89	96	1.86308	.00581	.01164
90	97	11.43390	.00196	.07146
91	98	1.81922	.00157	.01137
92	99	1.37152	.00885	.00857
93	100	4.10861	.00049	.02568
94	101	11.81211	.00054	.07383
95	102	.58185	.00002	.00364
96	103	2.06560	.00072	.01291
97	104	.93703	.00050	.00586
98	106	6.73255	.00103	.04208
99	107	4.15332	.01920	.02596
100	108	1.17111	.00261	.00732

	101	109	3.34039	.00941	.02088
	102	110	.97849	.00060	.00612
	103	111	3.59440	.00000	.02246
	104	112	2.55860	.00082	.01599
	105	113	1.06602	.00022	.00666
	106	114	6.70450	.01101	.04190
	107	115	2.42659	.00436	.01517
	108	116	5.86613	.00876	.03666
	109	117	.53481	.00006	.00334
	110	118	1.37115	.00249	.00857
	111	119	1.07253	.00151	.00670
	112	120	5.87132	.00157	.03670
	113	121	6.20236	.03082	.03876
	114	122	2.19331	.00001	.01371
	115	123	1.22390	.00016	.00765
	116	124	2.51451	.00544	.01572
	117	125	.16411	.00056	.00103
	118	126	9.89309	.01127	.06183
	119	127	3.35614	.00715	.02098
	120	128	3.12077	.00215	.01950
	121	129	3.23759	.02250	.02023
	122	130	.08981	.00617	.00056
	123	131	5.42230	.00693	.03389
	124	132	4.07213	.00095	.02545
	125	133	3.80815	.01427	.02380
	126	134	2.46734	.00292	.01542
	127	135	6.20031	.00250	.03875

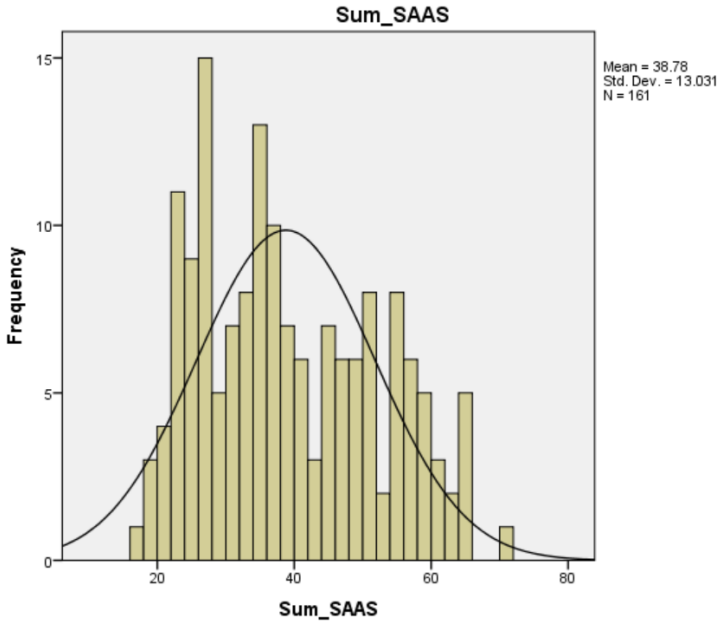
	128		136	4.15224	.00059	.02595
	129		137	3.97804	.00746	.02486
	130		138	2.42646	.00080	.01517
	131		139	4.07559	.00058	.02547
	132		140	1.21715	.00076	.00761
	133		141	2.77083	.00591	.01732
	134		143	1.10083	.00067	.00688
	135		144	3.08909	.01076	.01931
	136		145	7.01614	.00079	.04385
	137		146	1.86969	.00254	.01169
	138		147	.82717	.00000	.00517
	139		148	1.65121	.00688	.01032
	140		149	.34853	.00736	.00218
	141		150	.98709	.00621	.00617
	142		151	4.45847	.00335	.02787
	143		152	1.19424	.00603	.00746
	144		153	1.14726	.00040	.00717
	145		154	3.61661	.00178	.02260
	146		155	2.08718	.00002	.01304
	147		156	.75838	.00017	.00474
	148		157	6.30425	.00500	.03940
	149		158	3.33979	.01804	.02087
	150		159	3.74883	.01294	.02343
	151		160	3.42190	.01081	.02139
	152		161	9.78800	.05053	.06118
	Total	N		152	152	152
1	1		1	8.60536	.07350	.05378
	2		14	6.45784	.12480	.04036
	3		45	.52932	.01004	.00331
	4		72	1.10706	.01490	.00692
	5		80	9.37921	.10961	.05862
	6		88	1.87841	.02669	.01174
	7		93	1.00738	.01763	.00630
	8		105	.20239	.01401	.00126
	9		142	2.69227	.03495	.01683
	Total	N		9	9	9
Total	N			161	161	161

a. Limited to first 200 cases.

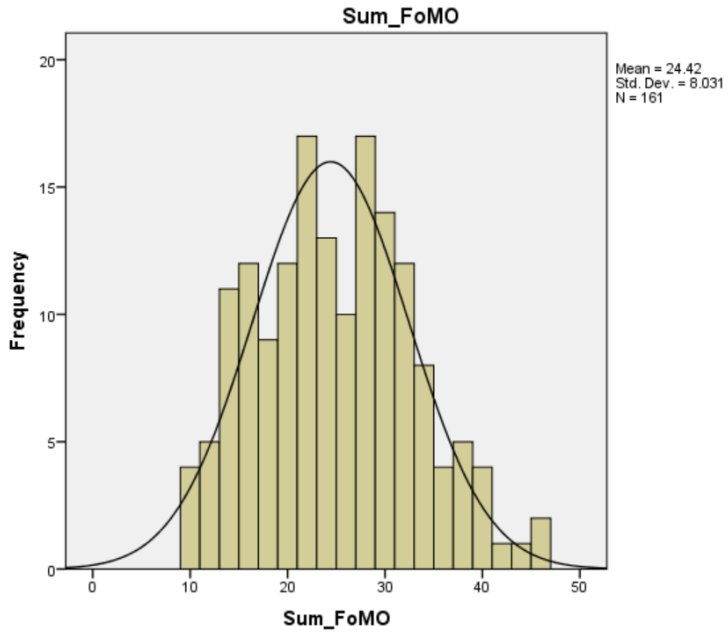
Appendix G: Assumptions of Normality

Histogram

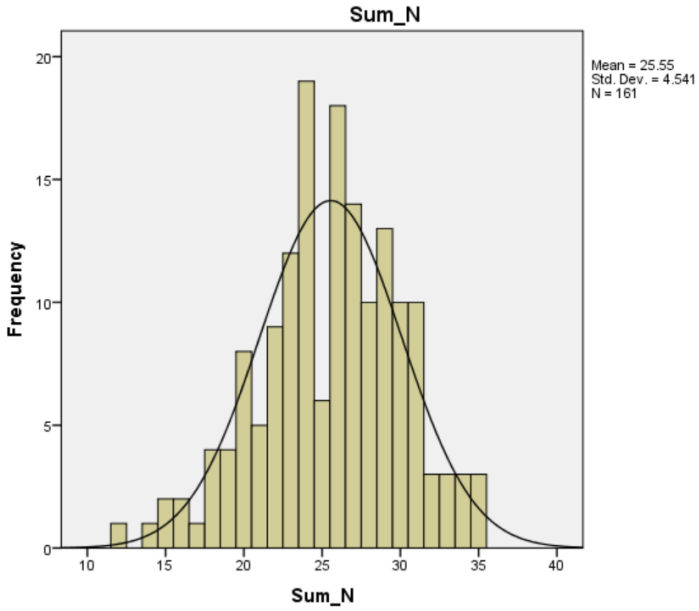
SAAS



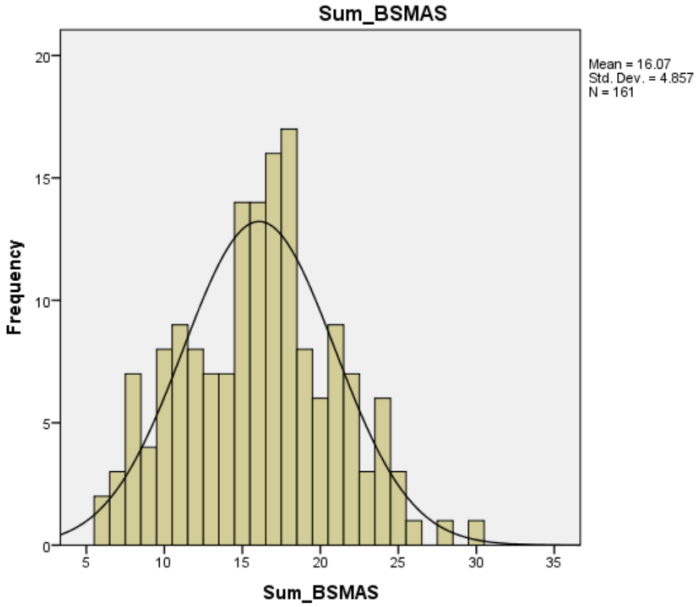
FoMOs



BFI (Neuroticism)



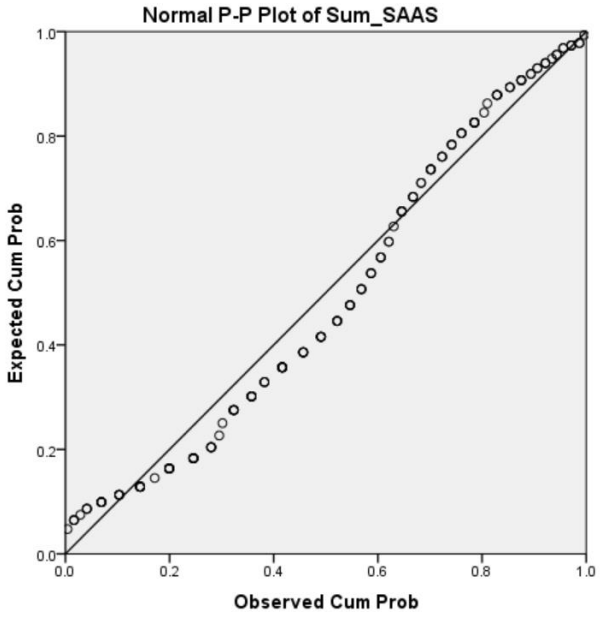
BSMAS



P-P Plot

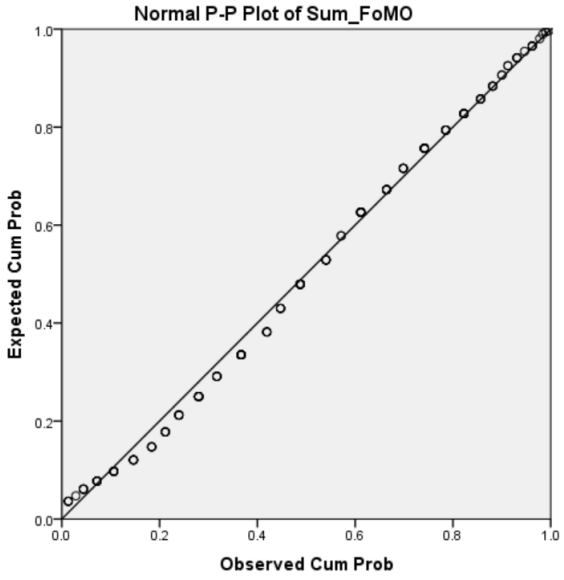
SAAS

Sum_SAAS



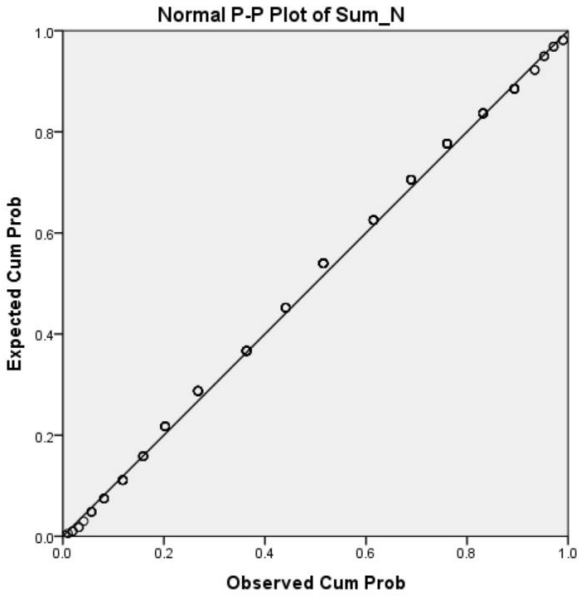
FoMOs

Sum_FoMO



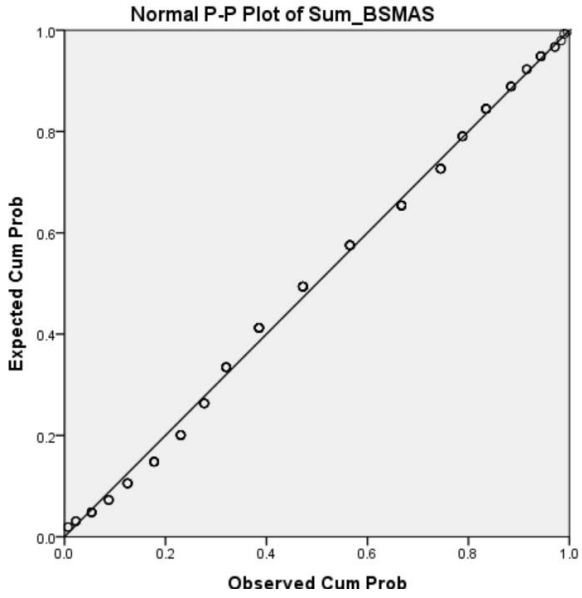
BFI (Neuroticism)

Sum_N



BSMAS

Sum_BSMAS



Skewness and Kurtosis

Frequencies

Statistics

		Sum_SAAS	Sum_FoMO	Sum_N	Sum_BSMAS
N	Valid	161	161	161	161
	Missing	0	0	0	0
Mean		38.78	24.42	25.55	16.07
Median		36.00	24.00	26.00	16.00
Mode		24[a]	21	24	18
Skewness		.383	.256	-.301	.085
Std. Error of Skewness		.191	.191	.191	.191
Kurtosis		-.913	-.506	-.021	-.331
Std. Error of Kurtosis		.380	.380	.380	.380
Range		54	36	23	24
Minimum		17	10	12	6
Maximum		71	46	35	30

a. Multiple modes exist. The smallest value is shown

Kolmogorov-Smirnov Test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sum_SAAS	.094	161	.002	.954	161	.000
Sum_FoMO	.068	161	.063	.982	161	.033
Sum_N	.080	161	.013	.987	161	.131
Sum_BSMAS	.071	161	.047	.987	161	.133

a. Lilliefors Significance Correction

Appendix H: Assumptions of Multiple Linear Regression

Independence of Error

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.589[a]	.347	.334	3.964	2.133

a. Predictors: (Constant), Sum_N, Sum_FoMO, Sum_SAAS

b. Dependent Variable: Sum_BSMAS

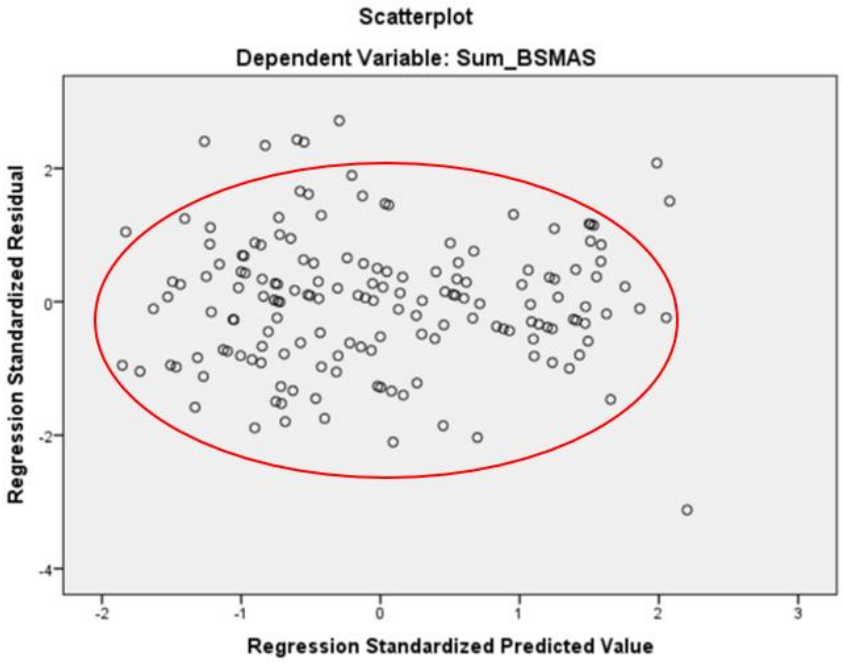
Multicollinearity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.724	1.902		5.638	.000		
	Sum_SAAS	.167	.034	.447	4.867	.000	.493	2.028
	Sum_FoMO	.124	.055	.206	2.280	.024	.512	1.955
	Sum_N	-.162	.072	-.152	-2.271	.025	.931	1.074

a. Dependent Variable: Sum_BSMAS

Residual, linearity, and homoscedasticity



Appendix I: Multiple Linear Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.589[a]	.347	.334	3.964	2.133

a. Predictors: (Constant), Sum_N, Sum_FoMO, Sum_SAAS

b. Dependent Variable: Sum_BSMAS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1308.436	3	436.145	27.760	.000[b]
	Residual	2466.670	157	15.711		
	Total	3775.106	160			

a. Dependent Variable: Sum_BSMAS

b. Predictors: (Constant), Sum_N, Sum_FoMO, Sum_SAAS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.724	1.902		5.638	.000		
	Sum_SAAS	.167	.034	.447	4.867	.000	.493	2.028
	Sum_FoMO	.124	.055	.206	2.280	.024	.512	1.955
	Sum_N	-.162	.072	-.152	-2.271	.025	.931	1.074

a. Dependent Variable: Sum_BSMAS