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SOCIAL MEDIA ADDICTION (SMA), INTERNET GAMING DISORDER (IGD), AND

ONLINE SHOPPING ADDICTION (OSA) AS PREDICTORS OF PSYCHOLOGICAL

WELL-BEING (PWB)

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Social Media Addiction (SMA), Internet Gaming Disorder (IGD), and Online Shopping

Addiction (OSA) as Predictors of Psychological Well-Being (PWB)

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This research project is submitted in partial fulfillment of the requirements for the Bachelor

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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 acknowledgment has been given in the bibliography and references to ALL sources be they printed, electronic, or personal.

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The research paper attached here to, entitled "Social Media Addiction (SMA), Internet Gaming Disorder (IGD), and Online Shopping Addiction as Predictors of Psychological Well-Being (PWB)", prepare and submitted by Ng Jing Rou, Sim Jing Xuan Vadelyn, and Vivian Goh Zhi Xuan in partial fulfilment of requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

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Abstract

The widespread use of the Internet in Malaysia, especially among young adults, has led to concerns about Internet addiction's impact on psychological well-being (PWB). High rates of social media engagement, online shopping, and gaming have been linked to poor PWB. This study aims to investigate how social media addiction (SMA), Internet gaming disorder (IGD), and online shopping addiction (OSA) predict PWB among young adults in Malaysia, addressing gaps in understanding and contributing to interventions for this demographic. Utilizing a quantitative approach, an online survey gathered data from 107 participants, aged 18 to 26, engaging in social media, online gaming, and shopping for at least one year. The study hypothesized that SMA, IGD, and OSA negatively predict PWB. Contrary to expectations, SMA and OSA were not significant predictors of PWB, indicating a more nuanced relationship than previously assumed. Interestingly, while SMA showed a non-significant positive relationship, IGD negatively predicted PWB, aligning with existing literature on the adverse effects of excessive gaming. This study used the Uses and Gratifications Theory (UGT) to investigate the impact of social media, Internet gaming, and online shopping on the PWB of young adults in Malaysia. The study identified gaps in the UGT's ability to explain addictive behaviours and recommended expanding the theory to include concepts of digital addiction. It emphasized the need for tailored interventions and public awareness campaigns to address excessive gaming and called for collaborative efforts between mental health professionals and policymakers to mitigate its negative impact on mental health.

Keywords: social media addiction (SMA), Internet gaming disorder (IGD), online shopping addiction (OSA), psychological well-being (PWB), young adults, Malaysia

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List of Abbreviations

PWB	psychological well-being
SMA	social media addiction
IGD	Internet gaming disorder
OSA	online shopping addiction
UGT	uses and gratifications theory
BSMAS	Bergen Social Media Addiction Scale
IGD9-SF	Internet Gaming Disorder 9 items Short Form
BSAS	Bergen Shopping Addiction Scale
DSM-5	Diagnostic and Statistical Manual of Mental Disorders - Fifth edition
WHO	World Health Organization
APA	American Psychiatric Association
DSM	Diagnostic and Statistical Manual of Mental Disorders
ICD	International Classification of Disease
ICD-10	International Classification of Diseases, Tenth Edition
COVID-19	Coronovirus Disease 2019
FoMO	fear of missing out
QR	Quick Response
MMORPG	massively multiplayer online role-playing games

SERC	Scientific and Ethical Review Committee
UTAR	Universiti Tunku Abdul Rahman
SPSS	Statistical Package for Social Science
K-S	Kolmogorov-Smirnov
P-P	Probability-Probability
MLR	Multiple Linear Regression
VIF	Variance Inflation Factor
CBT	cognitive-behavioural therapy
PT	person-centered therapy

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Chapter I

Introduction

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Background of Study

With the rapid advancement of technology, the widespread adoption of the Internet has profoundly altered our lifestyle, bringing unprecedented convenience. However, this convenience is accompanied by potential risks to psychological well-being (PWB). Excessive reliance on screens and immersion in activities like social media, online gaming, and online shopping not only lead to attention deficits but also have adverse effects on self-esteem and emotional health (Durrani et al., 2022; Ostic et al., 2021). Internet-related addiction often manifests as uncontrollable Internet use, impacting individuals' daily lives and careers. This digital dependence not only compromises sleep quality but may also trigger symptoms of anxiety and depression (Zhang et al., 2023). Simultaneously, overuse of social media can contribute to self-comparison and social anxiety, exacerbating psychological stress. Therefore, maintaining PWB in the digital age is crucial. Individuals need to seek balance, ensuring that Internet use doesn't disrupt real-life activities. Adopting proactive mental health measures, such as regular digital detox, setting usage limits, and cultivating healthy offline social and leisure habits, becomes essential for navigating the challenges posed by Internet-related addiction and preserving overall psychological health (Naslund et al., 2020).

Furthermore, Ostic et al. (2021) underscore the significant role social media addiction (SMA) plays as a precursor to PWB issues in young adults. The pervasive and compulsive engagement with social media has demonstrated a correlation with detrimental outcomes, such as heightened stress, anxiety, and depression. The continuous comparison fuelled by social platforms, coupled with the fear of missing out and the relentless pressure to maintain

an idealized online persona, all contribute to these adverse effects, as noted by Zhang et al. (2023). This intricate interplay between SMA and negative mental health outcomes suggests that a pattern of excessive online engagement can serve as an alarming indicator of challenges in PWB among young individuals. Recognizing and addressing these digital habits become imperative in the broader context of mental health, emphasizing the need for interventions and strategies that promote a healthier relationship with social media to mitigate potential adverse effects on well-being (Sharma & Sharma, 2018).

Internet gaming disorder (IGD) is recognized as a significant predictor of PWB in young adults. Excessive and problematic involvement in online gaming has been linked to a range of detrimental consequences, notably heightened levels of stress, anxiety, and depression, as indicated by Kaya et al. (2023). The immersive nature of gaming, combined with the potential for social isolation and neglect of real-world responsibilities, poses a substantial risk to PWB, as highlighted by Kuss (2021). The captivating world of online gaming can lead to a disconnect from reality, affecting social relationships and contributing to mental health challenges. Addressing IGD becomes imperative in fostering a healthier balance between online activities and overall mental well-being for young adults. This involves not only recognizing the potential negative impacts but also implementing interventions and strategies that promote responsible and moderate gaming habits, encouraging a more holistic approach to digital engagement for improved psychological health (Preyde & Adams, 2008).

According to Rose and Dhandayudham (2014), online shopping addiction (OSA) is a significant predictor of PWB issues among young adults. Excessive and compulsive involvement in online shopping has been linked to adverse outcomes, including heightened

stress, financial strain, and a diminished sense of self-control (Günüç & Keskin, 2016). The convenience and easy accessibility of online shopping platforms play a role in fostering addictive behaviours, impacting the overall PWB of individuals, as noted by Rupp (2022). The continuous allure of online shopping, coupled with the potential for impulsive and excessive spending, can lead to financial stress and a sense of loss of control. Recognizing and addressing OSA becomes crucial in cultivating a healthier relationship with consumption and, consequently, promoting PWB in young adults. This involves not only acknowledging the negative consequences but also implementing strategies to encourage responsible and mindful online shopping habits, aiming for a balanced approach that enhances overall mental health and financial well-being (Nyrhinen et al., 2023).

Problem Statement

In the digital age, online platforms have become more widely accepted and anticipated. In Malaysia, individual Internet usage increased to 96.8% in 2021 from 89.6% in 2020 (Department of Statistics Malaysia, 2022). Approximately 28 million Malaysians were engaged as users on social media (International Trade Administration, 2021), 66.6% engaged in online shopping, and 35.7% of Internet users in Malaysia are online gamers (Malaysian Communications and Multimedia Commission, 2023). Malaysia has been the largest online gaming market in Southeast Asia with 20.1 million gamers spending $673 million in 2019 (Bashir, 2020). The pervasive use of the Internet has raised concern that a growing number of individuals encounter the negative consequences of being addicted to the Internet in their everyday routines which brings negative impacts on their well-being. In today's world, the Internet has the capacity to gradually alter our thought patterns and engender addiction, influencing our PWB. This addiction encompasses various forms, such as SMA, IGD, and OSA.

In addition, research by Nordin (2019) indicated that psychological issues were more prevalent within the younger demographic in contrast to the age cohorts. Specifically, the incidence of psychological problems among young adults is 32.1% surpassing that observed in older adults of 24.8%. The phase of young adulthood is commonly marked by transitions and swift advancements across various aspects of life such as employment, education, living situations, as well as interpersonal and romantic relationships (Plenty et al., 2021). During these transitional phases, young adults face an elevated vulnerability to mental health issues, as well as challenges related to addictions (Patrick et al., 2019). A meta-analysis (Jurewicz, 2015) has mentioned that mental health issues persist among the younger population, with a recent report highlighting mental health as a predominant concern among young adults.

Multiple studies have emphasized that excessive online use is associated with poor PWB (Sharma & Sharma, 2018; Swar & Hameed, 2017). Researchers usually fall into one of two positions, some argue that Internet use can enhance PWB (Choi & Noh, 2019) by facilitating social interaction and interpersonal development (Huang, 2010), but the focus of the present study is on excessive Internet use and Internet-based addiction, which are SMA, OSA, and IGD. According to Alavi et al. (2011), excessive Internet usage can elevate psychological arousal and contribute to depression, low family relationships, and anxiety.

From a global perspective, 210 million people worldwide are thought to be addicted to social media and the Internet (Jessica, 2023). However, the present study aims to focus on Malaysia, Said et al. (2022) reported a 47.9% prevalence of high-risk smartphone addiction among university students in Malaysia. Another local study indicated that students with lower levels of PWB may be prone to SMA, driven by efforts to fulfill social needs (Ponnusamy et al., 2020). However, due to the participants in the study by Said et al. (2022) only being

university students in a public university, it could not generalize to all young adults in Malaysia. This present study aims to examine whether PWB could be predicted by SMA among young adults in Malaysia. The age group is specified among young adults as they are experiencing transitions in their life (Plenty et al., 2021), leading them to be more vulnerable towards SMA. According to Chegeni et al. (2021), the primary cause of SMA was deficiency in life skills including challenges in socialization, difficulties in resilience, and lack of problem-solving skills. Challenges in socialization lead to starting dependency on social media as escapism tools (Falgoust et al., 2022), lack of resilience contributes to the sustained persistence of dependence which tends to engage more in social media, and lack of problem-solving skills causing inability to quit social media, thus leads to SMA (Chegeni et al., 2021). Furthermore, the relationship between higher social media usage and lower PWB suggests that spending more time online may have adverse effects on mental health (Twenge & Campbell, 2019).

In an era marked by the digital revolution, online shopping has evolved into a pervasive activity that offers convenience, choice, and accessibility to consumers. However, there is a growing concern in this retail revolution which is the phenomenon of OSA. Günüç and Keskin (2016) mentioned that online compulsive shopping may not only lead to excessive Internet use but also result in harm to overall well-being which includes PWB. Moreover, research by Durrani et al. (2022) indicates OSA reduces life satisfaction, a component of PWB. However, this research only examines life satisfaction as the dependent variable but other components of PWB were not included. Life satisfaction is a facet of PWB, but PWB encompasses a broader range of mental health factors (Mehmood & Shaukat, 2014). However, there is an absence of local studies examining OSA, studies found were conducted in Turkey (Günüç & Keskin, 2016) and Pakistan (Durrani et al., 2022).

Conducting a study about OSA and PWB among the young adult population in Malaysia suggests a significant research gap in this area. Addressing this gap may contribute to a better understanding of this issue and could lead to more effective interventions.

Furthermore, IGD, marked by excessive gaming leading to impaired functioning, can significantly impact a person's mental health and overall PWB. A meta-analysis conducted in Southeast Asia indicates the prevalence of IGD stood at 10.1% (Chia et al., 2020). This shows that Malaysians are at a high prevalence rate of potential issues related to excessive gaming. Additionally, a Malaysian study found that higher frequency and duration of gameplay are associated with lower levels of PWB (Sabri & Yunus, 2021). However, the study only examined on Muslim participants only, unable to generalize it to a Malaysian multiracial context. In addition, most of the studies examining IGD focus on the general community (Gomez et al., 2022; Moore et al., 2021; Sabri & Yunus, 2021), university students (Durrani et al., 2022), and youth (T'ng & Pau, 2020), whereas this present study aims to focus on the specific age cohort of young adults, encompassing both university students and those who have engaged in the workforce. This focus helps to explore the challenges and understand more of the demographic, bridging the gap between academics and professionals.

Ruzyanei et al. (2021) revealed that individuals in the lower age group from age 19 to 21 faced a heightened risk of developing IGD compared to other age groups. This is due to factors such as lack of parental guidance and easier access to the Internet, leading to increased engagement in online gaming. Furthermore, Ruzyanei et al. (2021) also identify negative escapism as a crucial perpetuating factor for IGD as it operates as a psychological defense mechanism utilized by individuals employing maladaptive coping strategies. In this

present study, the focus is directed towards young adults specifically individuals in the age range of 18 to 26 years old. Acknowledging the dynamics of Internet addiction, SMA, OSA, and IGD affecting PWB may differ for this age group compared to the general public, adolescents, or undergraduate students.

The impact of various addictions extends beyond individual well-being, giving rise to broader societal issues. Despite extensive research done in looking at each component individually, there is still a knowledge gap concerning the relationship between SMA, IGD, and OSA in predicting PWB. Additionally, research on each component reveals gaps in understanding their respective roles in influencing PWB.

Therefore, the present study seeks to explain this gap by investigating the predictive roles of SMA, IGD, and OSA towards PWB. It also provides more understanding of the psychological and societal factors influencing PWB among young adults in Malaysia by investigating these relationships.

Research Objective

RO1: To examine the predictive effects of social media addiction (SMA), Internet gaming disorder (IGD), and online shopping addiction (OSA) on psychological well-being (PWB) among young adults in Malaysia.

Research Question

RQ1: Do social media addiction (SMA), Internet gaming disorder (IGD), and online shopping addiction (OSA) negatively predict psychological well-being (PWB) among young adults in Malaysia?

Hypotheses

H1: Social media addiction (SMA) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

H2: Internet gaming disorder (IGD) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

H3: Online shopping addiction (OSA) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

Significance of Study

Theoretical significance

The significance of this study lies in its capacity to illuminate the complex relationship between online behaviours and PWB in the context of the Uses and Gratifications Theory (UGT). UGT was formulated by a collective of researchers (Katz et al., 1973). Their shared focus was to comprehend the influence of media on individuals' lives. As UGT continues to be the most prevalent theory in the field of media effects research (Potter, 2012), it has become the main reason it was implemented in this study to gain a deeper understanding of how media affects an individual. In addition, by applying UGT to the context of online behaviours and PWB, this study broadens the application of UGT, which was traditionally focused on traditional media consumption. It shows the theory's adaptability and applicability in understanding motivations and gratifications in these modern days. UGT outlines a set of five assumptions regarding how people use and interact with media, which are (1) needs and motivations, (2) expectancy and intentions, (3) media exposure, (4) gratifications obtained, and (5) psychological and behavioural outcomes. Consistent research has shown that

gratitude is a predictor of overall life satisfaction (Unanue et al., 2022). Individuals who have effectively met their psychological needs tend to report higher levels of well-being in their interpersonal relationships and lower instances of psychological issues.

This study offers a comprehensive understanding of the motivations behind SMA, IGD, and OSA. It explores how individuals seek gratification from these behaviours and how these motivations may relate to their PWB. This study holds significant importance as it can provide insights into methods for fostering healthier online engagement, digital media use, and the prevention of potential negative consequences.

In addition, this study of using UGT as a theory plays a crucial role in closing the research gaps. The geographical context of Malaysia provides a unique dimension to UGT for understanding the Internet use patterns within Malaysia's multicultural communities. Cultural differences can significantly impact how an individual perceives and engages in the Internet. Moreover, focusing specifically on young adults holds theoretical significance due to the critical development stage of young adulthood. During this period, individuals often form media habits that can influence their behaviour negatively in the long term. By focusing on this age cohort, this study aims to explore the patterns that might differ from older or younger cohorts, providing deeper understanding into the interplay between media consumption and PWB during this life stage.

UGT is indeed a core premise that audiences are active participants in the media consumption process. They consciously choose and use media to meet their specific needs, desires, and motivations. This theory places emphasis on the active role of individuals in selecting and interacting with media content to fulfill their gratifications. Moreover,

Kircaburun et al. (2018) mentioned that there is insufficient research on the problematic usage of social media grounded in the UGT. Therefore, it is very important to understand how UGT explores the user motivations, preferences, and behaviours on SMA, IGD, and OSA as it offers important insights in addressing the research gaps identified.

In establishing the theoretical foundation for this study, it is important to understand the role of the selected key variables, SMA, IGD, and OSA together with the widely recognized framework of UGT. These variables, each representing a different aspect of media use, fit into the concept of UGT. By integrating these key variables, this study aims to explore the interplay between individual motivations, media engagement, and the specific domains of social media, online shopping, and Internet gaming, and how it affects one's PWB.

Practical significance

The practical significance of this study is substantial, as it can directly impact individuals and society in these few ways. There is a variety of research studies (Sabri and Yunus, 2021; Günüç and Keskin, 2016) have shown that online behaviours such as SMA, IGD, and OSA contribute an impact on an individual's PWB. By understanding the motivations behind these online behaviours, personalized interventions, and support systems can be developed to better address those problems. For example, mental health professionals and addiction counsellors can use these insights to create and tailor suitable interventions or treatment programs for individuals who are struggling with these addictive behaviours.

Simultaneously, agencies like the government, online platforms, educational institutions, and relevant organizations can apply the findings to create awareness and spread

it to the public. This can be done through developing curricula and campaigns that educate the public about the potential negative impacts of excessive online use. Furthermore, policymakers play an important role in influencing the regulatory, financial, and educational aspects of digital behaviours, which can directly impact PWB in today's digital world. This is because policymakers help set guidelines or design interventions to promote more responsible online behaviour and improve PWB. Policymakers have the right and authority to enforce laws and regulations related to digital behaviours like online privacy, cyberbullying, and screen time limits. Every decision has significant practical importance in this research field as they have the power to shape the landscape in which individuals engage with digital technologies.

This study aligns with UGT which focuses on the motivation behind media usage. This theory provides a solid foundation for understanding why an individual engages in such online behaviours and how it affects one's PWB. This study is conducted to connect the gap between practice and theory, providing insights that help in promoting a more balanced use of digital media together with enhancing individuals' overall PWB in an increasingly digital world.

Conceptual Definitions

Social Media Addiction (SMA)

SMA refers to an excessive and compulsive use of social media platforms, leading to negative impacts on one's mental health, relationships, and overall well-being (Wigmore, 2019). It involves a loss of control, preoccupation with social media, and continued use despite awareness of its adverse effects (Hilliard, 2019).

Internet Gaming Disorder (IGD)

IGD is characterized by persistent and recurrent engagement in online games, leading to significant impairment in various areas of functioning. Common features include loss of control, prioritizing gaming over other activities, and continued gaming despite negative consequences (Nasution et al., 2019). It's recognized as a behavioural addiction, and its conceptual definitions often consider factors like withdrawal symptoms, tolerance, and unsuccessful attempts to cut down on gaming.

Online Shopping Addiction (OSA)

OSA also known as compulsive buying disorder refers to a behavioural pattern where individuals excessively engage in online shopping, leading to negative consequences in various aspects of their lives (Nyrhinen et al., 2023). It involves an inability to control the urge to make unnecessary purchases, resulting in financial strain, impaired functioning, and emotional distress.

Psychological Well-Being (PWB)

PWB encompasses an individual's overall mental state, characterized by emotional resilience, positive social relationships, clarity of thought, a sense of purpose, autonomy, healthy self-esteem, resilience in the face of challenges, engagement in fulfilling activities, and an optimistic outlook on life (Robertson, 2023). It represents a holistic concept that goes beyond the absence of mental health issues, emphasizing the presence of positive elements contributing to a fulfilling and satisfying existence. PWB reflects a balance across emotional, social, cognitive, and existential dimensions, highlighting the importance of subjective experiences and positive functioning in various aspects of an individual's life (IResearchNet, 2016).

Operational Definitions

Social Media Addiction (SMA)

The Bergen Social Media Addiction Scale (BSMAS) which was developed by Andreassen et al. (2012) is applied in this study to measure the seriousness of an individual's experience of SMA symptoms. The scale consists of a total of 6 items with a 5-point Likert scale, which ranges from 1 for "very rarely" to 5 for "very often". The total score of BSMAS is to sum up all scores of the 6 items, which range from 6 to 30. The higher the scores, the greater severity of experience of social media addiction symptoms.

Internet Gaming Disorder (IGD)

The Internet Gaming Disorder 9 items Short Form (IGD9-SF) which was developed by Pontes and Griffiths (2015) is applied in this study. This scale is to measure the seriousness of the IGD symptoms. It consists of a total of 9 items with a 5-point Likert scale ranging from 1 indicating "never" to 5 indicating "very often". The total score of the scale is to sum up all scores of the 9 items ranging from 9 to 45. The higher the scores, the higher the level of seriousness of the IGD symptoms.

Online Shopping Addiction (OSA)

The Bergen Shopping Addiction Scale (BSAS) was developed by Andreassen et al. (2015) and is applied in this study to measure shopping addiction based on seven behavioural criteria, which are salience, mood modification, conflict, tolerance, relapse, withdrawal, and problems in the last 12 months. The scale consists of a total of 7 items with a 5-point Likert scale ranging from 1 for "completely disagree" to 5 for "completely agree". The higher the scores, the higher the level of shopping addiction.

Psychological Well-Being (PWB)

The Flourishing Scale is applied in this study and this scale was developed by Diener et al. (2009) to measure important parts of human functioning including positive relationships, feelings of competence, and life meaning and purpose. The scale consists of 8 items with a 7-point Likert scale that ranges from 1 indicating "strongly disagree" to 7 indicating "strongly agree". The total score on the scale ranges from 8 to 56. The higher scores mean the individual views themselves very positively in different parts of human functioning.

Chapter II

Literature Reviews

Conceptualizing on Psychological Well-Being (PWB)

In general, PWB includes various aspects of positive functioning (Ryff, 1989; Ryff, 2018; Ryff & Singer, 2008). PWB means an individual's formation of mindsets to develop themselves in order to be able to feel happy. In this context, an individual should be able to delay his pain, he should be able to do that and struggle even though PWB hurts (Çardak, 2013). The lower level of PWB indicates some characteristics such as lower self-esteem, higher depression, and anxiety (Blaine & Brenchley, 2020).

PWB is a multifaceted concept involving optimal psychological functioning and experience, and there are two types of PWB, which are: (1) hedonic well-being, and (2) eudaimonic well-being (Tang et al., 2019). Firstly, hedonic well-being usually refers to subjective feelings of pleasure and happiness, involving three different constructs which are high positive affect, low negative affect, and high life satisfaction (Robertson, 2023). According to Carruthers & Hood (2004), individuals can experience happiness when both positive affect and life satisfaction are concurrently high.

Secondly, eudaimonic well-being refers to the purposeful dimension of PWB. Psychologist Carol Ryff (1989) has introduced a comprehensive model that encapsulates Eudaimonic well-being into six key dimensions of PWB which are: (1) self-acceptance, (2) environmental mastery, (3) positive relationships, (4) personal growth, (5) purpose in life, and (6) autonomy (Ryff, 2014). PWB is rooted in various factors including personal growth, self-acceptance, environmental mastery, positive relationships, self-determination, and a

sense of purpose in life (Carruthers & Hood, 2004). These elements collectively provide a comprehensive understanding of individuals' mental and emotional well-being.

Conceptualizing on Social Media Addiction (SMA)

Social media functions as a global communication platform for instant connection, information sharing, networking, entertainment, self-expression, promotion, community building, education, and real-time interaction. It enables users to communicate without constraints of time or location, and social media facilitates diverse online sharing and discussion. Social media is categorized into a few types like social networking such as Facebook and Instagram, professional networking such as Linkedin, video sharing such as YouTube and TikTok, and microblogging such as Twitter and Knead (Balakrishnan & Griffiths, 2017).

In today's digital era, the negative impact of SMA remains a huge concern to the public. SMA involves repetitive and compulsive bahaviour patterns, such as excessive time spent on social media platforms, frequent checking, and inability to control the usage of social media. Thus, persistent engagement beyond intended limits occurs, disruption in daily activities, and difficulty in reducing or controlling usage of social media use. While SMA is not currently recognized in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), it is considered a significant issue impacting individuals' lives, signalling a noteworthy problem within the realm of behavioural addiction (Aslan & Tolan, 2022).

Conceptualizing on Internet Gaming Disorder (IGD)

IGD, in both the World Health Organization's (WHO) framework and the DSM-5 by the American Psychiatric Association (APA) (APA, 2013), is the persistent and distressing pattern of Internet gaming, significantly impairing one's daily functioning over a span of 12 months. According to the WHO, gaming disorder is characterized by impaired control over gaming, prioritizing it over other activities, and continuation or escalation of gaming despite negative consequences (Poznyak, 2018). This aligns with DSM-5's comprehensive criteria that delve into specific aspects of this disorder (APA, 2013).

DSM-5's nine criteria for diagnosing IGD offer a nuanced understanding of its multifaceted nature. These criteria include (1) preoccupation with Internet games, (2) withdrawal symptoms like irritability or anxiety when gaming is restricted, (3) an escalating tolerance leading to increased hours spent gaming, (4) loss of self-control in gaming participation, (5) neglect of prior interests and hobbies, (6) persistent excessive use despite awareness of psychosocial problems, (7) dishonesty about the extent of gaming, (8) utilizing games as a means of escapism from negative emotions, and (9) a discernible negative impact on significant aspects of life, such as relationships, employment, or educational opportunities (APA, 2013). The convergence of WHO's acknowledgment and DSM-5's criteria underscores the global recognition and significance of IGD as a mental health concern (Poznyak, 2018). This dual perspective emphasizes the necessity of promoting a balanced approach to gaming, ensuring mental well-being in an era where digital engagement plays an increasingly prevalent role in our lives (APA, 2013; Poznyak, 2018).

Conceptualizing on Online Shopping Addiction (OSA)

OSA is defined as an online shopping behaviour that is excessive, compulsive, and pathological which can bring negative consequences to economic, social, and emotional (Li et al., 2023). Additionally, OSA is recognized as a behavioural addiction in those individuals who have a stronger and excessive engagement in online shopping can lead to financial, social, and emotional issues (Nyrhinen et al., 2023). Compulsive online shopping is defined as excessive shopping caused by uncontrollable shopping motivation that spends more time and effort on it which leads to impairment in other important life domains (Uzarska et al., 2021).

However, according to Nyrhinen et al. (2023), OSA is still not recognized as an official disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD). DSM-5 only acknowledges it as a behavioural addiction that is categorized in the "Disorder of Impulse Control Not Otherwise Specified" due to a lack of sufficient data (APA, 2013). However, compulsive shopping is classified as an impulse control disorder in the International Classification of Diseases, Tenth Edition (ICD-10) (Nyrhinen et al., 2023). Griffiths (2005) mentioned that there are six components in OSA, which are: (1) salience, (2) euphoria, (3) tolerance, (4) withdrawal symptoms, (5) conflict, and (6) relapse.

SMA and PWB

Multiple studies have indicated that SMA is negatively associated with PWB (Aslan & Tolan, 2022; Huang et al., 2023; Schivinski et al., 2020). According to Ostic et al. (2021), there is a growing concern surrounding the negative effects linked to SMA. The use of social media has been associated with various negative outcomes, including an increase in feelings

of anxiety (Vannucci et al., 2017), elevated depression (Dhir et al., 2018), higher loneliness levels (Kim & Lee, 2023), sleep problem (Aslan & Tolan, 2022), social isolation and smartphone addiction (Ostic et al., 2021). These factors contributed to a negative effect on an individual's PWB.

Within the existing literature, there is evidence linking SMA to adverse effects on body image. Social media platforms often showcase curated, idealized versions of people's lives, and continuous exposure to such content can lead to social comparison. This was supported by Glazzard and Stones (2019) indicate that the exposure of users to 'ideal' body images on social media platforms, coupled with their bodies, has been associated with reducing self and body esteem. These unrealistic expectations portrayed on social media may contribute to feelings of self-consciousness, low self-esteem, and pursuit of perfection, potentially leading to anxiety disorders (Aslan & Tolan, 2022). Furthermore, social media often serves as a coping mechanism for individuals to escape from real-life stressors or temporarily distract individuals from stressful environments. This escape may provide temporary relief but excessive reliance on social media for coping resulted in negative consequences such as psychological exhaustion and information overload, ultimately compromising the PWB (Eijnden et al., 2016; Schivinski et al., 2020; Sun et al., 2023).

In addition, to support the association between SMA and poor PWB, two meta-analyses showing consistent findings suggest that SMA is associated with heightened levels of psychological distress which is depression and anxiety (Keles et al., 2019; Marino et al., 2018).

IGD and PWB

According to Shouman et al. (2023), IGD is proved as a significant predictor of PWB. The temporal and immersive nature of online gaming can lead to a profound neglect of real-life responsibilities (King & Delfabbro, 2020). Individuals struggling with IGD may find themselves engrossed in virtual worlds for extended periods, jeopardizing their daily functioning. This neglect can contribute to heightened stress levels, as the boundary between the virtual and real becomes blurred, impacting various facets of life, including academic or professional obligations (Han et al., 2016).

Moreover, the social dynamics embedded within online gaming communities play a private role. While these communities can offer a sense of camaraderie and belonging, they can also shape an individual's social interactions and integration (Szolin et al., 2022). For some, the online gaming realm becomes a primary source of social engagement, potentially leading to a diminished presence in offline social circles (Sioni et al., 2017). This shift in social dynamics can influence an individual's overall mental well-being, affecting their perception of social support and connection (Sioni et al., 2017).

The addictive nature of gaming further amplifies the impact on PWB. IGD is characterized by a persistent and escalating pattern of gaming despite negative consequences (Beard & Wickham, 2016). This addictive behaviour may result in a neglect of other crucial aspects of life, such as work or academic responsibilities, interpersonal relationships, and physical health (Kuss & Griffiths, 2012). The all-encompassing nature of gaming addiction can contribute to a sense of imbalance and distress, further influencing an individual's mental health negatively (Kaptsis et al., 2016).

OSA and PWB

That is an association between OSA and PWB. This was explained by Yassin (2021),
the financial dimension is crucial. Excessive online shopping can lead to financial strain as
impulsive purchases and a lack of budgetary control may result in economic instability. The
accumulation of debt and the perpetual cycle of spending to alleviate stress or derive pleasure
from acquiring goods can create a tangible burden, negatively impacting an individual's
mental well-being (Yassin, 2021).

Secondly, prolonged engagement in online shopping, often done in isolation, can
contribute to social withdrawal. The allure of virtual retail therapy may replace traditional
social interactions, potentially leading to feelings of loneliness and isolation. The absence of
meaningful face-to-face connections can have repercussions on mental health, as human
connections are integral to emotional well-being (Erjavec & Manfreda, 2021).

Furthermore, the pursuit of happiness through material possessions acquired via
online shopping may foster a distorted sense of fulfillment (Haupt, 2022). This hedonic
adaptation, where the joy derived from new purchases diminishes rapidly, can contribute to a
perpetual cycle of seeking gratification through continuous buying. This cycle not only
strains financial resources but can also impact self-esteem and overall life satisfaction (Haupt,
2022).

Theoretical Framework

The UGT developed by Katz and Blumler (1974) has been applied in this study to
explain the usage of social media, Internet gaming, and online shopping among young adults
in Malaysia. Based on the UGT, individuals actively select and use media to gratify and

satisfy certain needs and desires, and different media have different gratifications (Vinney, 2019). According to the UGT, individuals select media to achieve certain gratifications or satisfaction by consuming the media (López et al., 2017). Katz et al. (1973) highlighted that different media can meet different gratifications such as information needs, social interaction, and entertainment based on the UGT. According to Vinney (2019), there are five assumptions of media usage in UGT, which are: (1) goal-driven, (2) media is chosen to satisfy and gratify needs and desires based on expectations, (3) media can influence behaviour through social and psychological factors, (4) media compete with other sources to achieve gratification or satisfaction, and (5) individuals are in control of media.

Additionally, Yang et al. (2023) mentioned that there are four categories of gratifications of media consumption, which are: (1) diversion which is the desire to escape from real-life stressors, (2) personal relationships which is the desire for companionship, (3) personal identities which is the desire for self-reference, and (4) surveillance which is the desire to seek for information. Not only that, there are five needs of media consumption that were developed by Katz et al. (1973), which are: (1) cognitive needs which is the desire for information seeking and sharing, (2) affective needs which is the desire for emotional satisfaction and pleasure experience, (3) personal identity needs which is the desire to enhance personal identities, (4) social integrative needs which is the desire for social connection and interaction, and (5) tension-free needs which is the desire for escapism from real-life stressors. Thus, the selected media in this study are social media, Internet gaming, and online shopping, and these selected media can fulfill the five needs stated above to motivate individuals to use them.

Firstly, there are a variety of social media platforms in this digital world such as Facebook, Twitter, YouTube, WhatsApp, and others. According to Falgoust et al. (2022), there are ten motivations of social media usage in the UGT, which are: (1) social interaction, (2) information seeking, (3) time passage, (4) entertainment, (5) relaxation, (6) communication tool, (7) convenience, (8) expression of opinion or ideas, (9) information sharing, and (10) knowledge about others. These motivations can help in achieving the five needs under the UGT, which are (1) cognitive needs by providing information for individuals to seek and share using social media such as Google, (2) affective needs by providing platforms such as Facebook for individuals to express their opinion, thoughts, or ideas, (3) personal identity needs by curating individuals' profiles and content to enhance their personal identity in social media such as Instagram, (4) social integrative needs by providing platforms such as WhatsApp for individuals to interact and communicate with others, and (5) tension-free needs by providing platforms such as YouTube to entertain and pass free time quickly. Individuals can use social media to enhance social connection with posts, likes, comments, and shares of the posts in the social media (Phua et al., 2017). According to López et al. (2017), the need for information, social interaction, and entertainment motivates individuals to use social media. These motivations can help individuals to achieve their desires or needs by using social media.

However, these needs will motivate individuals to continue using social media and become more dependent on using social media which can lead to SMA that will affect individuals' PWB. They will tend to spend more time using social media than expected when they view social media as escapism tools from real-life stressors that can lead to SMA (Falgoust et al., 2022). Addictiveness in social media will cause impairment in PWB. For

example, individuals who are addicted to using social media will feel lonely and depressed and have low life satisfaction and low self-esteem (Zsila & Reyes, 2023).

Secondly, the second selected media in this study is Internet gaming. According to Abbasi et al. (2021), there are three components of Internet gaming based on the UGT, which are: (1) achievement, (2) immersion or enjoyment, and (3) social interaction. According to T'ng and Pau (2020), cognitive needs can be achieved through gamers' achievement motivation; affective needs and tension-free needs can be achieved by immersion of gamers; social integrative needs can be achieved through socialization with others in the gaming world; and personal identity needs can be achieved through identification and customization of characters or avatars in the gaming world.

However, individuals use Internet games as an escapism tool to cope with stress, depression, and negative emotions that will cause them to immerse themselves in Internet games and suppress themselves from reality (Hussain et al., 2021). This is because they tend to spend more time playing Internet games, especially loyal and committed gamers (Abbasi et al., 2021). If individuals keep playing Internet games, it will increase the risk of Internet gaming addiction (Zhu et al., 2021). Being highly addicted to Internet gaming until impairment in daily functioning will lead to IGD that can affect their physical health and PWB such as aggression, depression, anxiety, and so on (Abbasi et al., 2021).

Thirdly, the third selected media in this study is online shopping. Online shopping is necessary for our daily and become the main choice to purchase something because of convenience, stimulation, bargaining, social interaction, money-saving, idea-seeking, and variety of products (Huang & Zhou, 2018). According to Lim and Ting (2012), online

shopping attitudes are influenced by entertainment gratification, informativeness gratification, and web irritation. There are three motivations that can increase online purchasing intentions, which are: (1) social which is the desire to get positive reviews of products from peers, (2) remuneration which is the desire to get rewards such as gifts, discounts, free delivery fees, and others from online retailers, and (3) empowerment which is the desire to get chance in expressing consumers feedbacks for improvement (Feng et al., 2022).

However, according to Nyrhinen et al. (2023), compulsive online shopping has increased during the COVID-19 pandemic which increases the risk of OSA among young people. This is because online shopping enables individuals to escape from real-life stressors and challenges, and temporarily forget the stressors by engaging in online shopping and unconsciously consume excessively (Li et al., 2023). OSA will cause financial issues and psychological issues such as stress, anxiety, worry, discomfort, depression, low life satisfaction, loneliness, frustration, and other negative emotions (Durrani et al., 2023).

Conceptual Framework

In the present study, SMA, IGD, and OSA serve as three predictors of PWB. This study hypothesizes these three predictors, which are SMA, IGD, and OSA negatively predict PWB among young adults in Malaysia. This indicates that the higher level of SMA, IGD, and OSA will lower the PWB of an individual. Hence, this present study aims to examine the predictive effects of the SMA, IGD, and OSA on the PWB using the UGT.

UGT has been supported and used wisely in numerous studies related to social media (Hossain, 2019; Ifinedo, 2016; López et al., 2017; Phua et al., 2017), Internet gaming (Abbasi

et al., 2021; T'ng & Pau, 2020; Wu et al., 2010; Yang et al., 2023), and online shopping (Feng et al., 2022; Lim & Ting, 2012; Sharma & Crossler, 2014). Hence, UGT has been applied as the theoretical framework in the present study to examine the predictive effects of SMA, IGD, and OSA on PWB among young adults in Malaysia.

According to the UGT, there are five assumptions of media usage, which are: (1) goal-driven, (2) media is chosen to satisfy and gratify needs and desires based on expectations, (3) media can influence behaviour through social and psychological factors, (4) media compete with other sources to achieve gratification or satisfaction, and (5) individuals are in control of media (Vinney, 2019). Additionally, there are five needs of media usage based on the UGT, which are: (1) cognitive needs, (2) affective needs, (3) personal identity needs, (4) social integrative needs, and (5) tension-free needs (Katz et al., 1973). Cognitive needs are the desire to get information and knowledge; affective needs are the desire to get emotional satisfaction or pleasure experience; personal identity needs are the desire to improve personal identity, status, and credibility; social integrative needs are the desire to get the social connection, and tension-free needs are the desires to escape from real-life stressors and be relax (Kasirye, 2022).

SMA is perceived to have a negative predictive effect on PWB. Falgoust et al. (2022) highlighted that there are ten motivations of social media usage in the UGT, which are: (1) social interaction, (2) information seeking, (3) time passage, (4) entertainment, (5) relaxation, (6) communication tool, (7) convenience, (8) expression of opinion or ideas, (9) information sharing, and (10) knowledge about others that can help in achieving the five needs under the UGT. Whiting and Williams (2013) conducted a study to examine the importance of the UGT to social media. According to the outcomes of the study by Whiting and Williams (2013),

there is 80 percent of participants use social media for information-seeking and self-education purposes, and 40 percent of participants use social media for information-sharing purposes that can help them fulfill cognitive needs. Secondly, affective needs can also be achieved because there is 56 percent of participants use social media to express their ideas, opinions, and thoughts with likes, comments, and shares on posts, and 64 percent of participants use social media for entertainment purposes that can bring to pleasure experiences on using social media in the study by Whiting and Williams (2013).

Thirdly, individuals curate their profiles and content to enhance their identity in social media which can achieve their personal identity needs. Fourthly, there is 88 percent of the participants use social media such as Facebook for social interaction purposes to keep in touch with others and meet new friends, 32 percent of participants use social media for the purpose of surveillance or knowledge about others which is to watch what others are doing and try to connect with others, and 56 percent of participants use social media as a communication tool to talk with others that can help them to achieve social integrative needs (Whiting & Williams, 2013). Fifthly, there is 76 percent of participants use social media to pass or occupy their free time, 60 percent of participants use social media to relax, and over 16 percent of participants use social media to escape from real-world stressors (Whiting & Williams, 2013).

However, excessive use of social media will lead to addiction that will affect the PWB negatively, which are loneliness, fear of missing out (FoMO), lower self-esteem (Zsila & Reyes, 2023), depression (Aslan & Tolan, 2022; Ostic et al., 2021; Zsila & Reyes, 2023), anxiety, loneliness, social isolation (Ostic et al., 2021), lower happiness, shorter sleep duration (Aslan & Tolan, 2022), stress, lower sleep quality (Aslan & Tolan, 2022; Yue et al.,

2021), and lower engagement in hobbies and exercise (Yue et al., 2021). Therefore, SMA is perceived as a threat to well-being (Yue et al., 2021). The risk of SMA will increase when individuals view social media as escapism tools from real-life stressors because they tend to spend more time using social media than expected (Falgoust et al., 2022). Additionally, social media can also lead to anxiety and fear that will lower the PWB due to misinformation and rumours on social media because individuals always seek information online to handle uncertainties and ambiguities (Yue et al., 2021) which will cause cognitive overload. Not only that, PWB will be negatively affected by social media use because social media reduces engagement in social activities in the real world and the time to spend with others such as friends and family members (Aslan & Tolan, 2022). Therefore, SMA is hypothesized to predict PWB negatively in the present study.

Furthermore, IGD is also perceived to have a negative predictive effect on PWB. According to Bonny and Castaneda (2022), there are six motivations for playing Internet games, which are: (1) arousal, (2) challenges, (3) competition, (4) diversion, (5) fantasy, and (6) social interaction, and these motivations can achieve the five needs under the UGT. Cognitive needs can be achieved through arousal motivation by stimulating players' mental and cognition, and challenge motivation by challenging themselves to achieve certain goals that are difficult to achieve; affective needs can be achieved through fantasy motivation by doing something illegal and impossible to do in the real world in the gaming world to express their emotions; personal identity needs can be fulfilled by customizing their avatars in the gaming world; social integrative needs can be achieved through competition motivation by competing with others, and social interaction motivation by interacting with other players in the gaming; and tension-free needs can be fulfilled through diversion motivation by helping them escape from real-life stressors and be more relaxed (Bonny & Castaneda, 2022).

However, Internet games are viewed as an escapism tool to escape from negative emotions and stressors causing individuals to immerse themselves in Internet games and suppress themselves from reality (Hussain et al., 2021), and this will increase the risk of Internet gaming addiction (Zhu et al., 2021) and lead to IGD. Additionally, there is a negative association between the severity of IGD and PWB, which indicates that greater severity of IGD, lowers the PWB of an individual (Shouman et al., 2023). For example, depression, anxiety (Teng et al., 2020; Kaya et al., 2023) loneliness, lower self-esteem, lower life purpose, lower self-acceptance (Shouman et al., 2023), lower life satisfaction (Teng et al., 2020; Shouman et al., 2023), stress, suicidal thoughts, aggressive behaviours, lower life quality, sleep deprivation, social phobia, social anxiety, social and psychological isolation, and psychoticism (Kaya et al., 2023). Hence, IGD is hypothesized to predict negatively on PWB in the present study.

Moreover, OSA is also perceived as a negative predictor of PWB. According to Sharma and Crossler (2014), there are six motivations for online shopping behaviour, which are: (1) social presence, (2) familiarity, (3) perceived enjoyment, (4) cool and new trends, (5) information quality, and (6) subjective norms. These motivations can help to fulfill the five needs under the UGT. Information quality motivation can help to achieve cognitive needs by seeking and collecting accurate information about products such as deals, reviews, and others that satisfy their requirement; perceived enjoyment motivation can help to achieve affective needs by interacting with others that bring fun and pleasure experiences in online shopping, and tension-free needs to escape from real-world stressors; subjective norms motivation can help to achieve personal identity needs by sharing their preferences and purchase history to curate a personalized items collection, and social integrative needs by conforming to social norms to get social recognition by following the newer trend (Sharma & Crossler, 2014).

However, individuals view online shopping as an escapism tool to escape from real-life stressors and challenges, and temporarily forget the stressors by engaging in online shopping and unconsciously consuming excessively (Li et al., 2023), and this will increase the risk of OSA. OSA will lead to lower life satisfaction, lack of love (Durrani et al., 2022), loneliness (Durrani et al., 2022; Uzarska et al., 2021), lower self-regulation (Durrani et al., 2022; Rose & Dhandayudham, 2014), negative emotions, lower self-esteem (Durrani et al., 2022; Rose & Dhandayudham, 2014; Uzarska et al., 2021), irrational, lower personal control, emotional instability, materialistic (Rose & Dhandayudham, 2014), stress, feelings of guilt, lower self-efficacy, social anxiety, lower life quality, lower sleep quality (Uzarska et al., 2021) that will affect PWB of an individual. Therefore, in the present study, OSA is hypothesized to predict negatively on PWB.

Figure 2.1

Conceptual framework
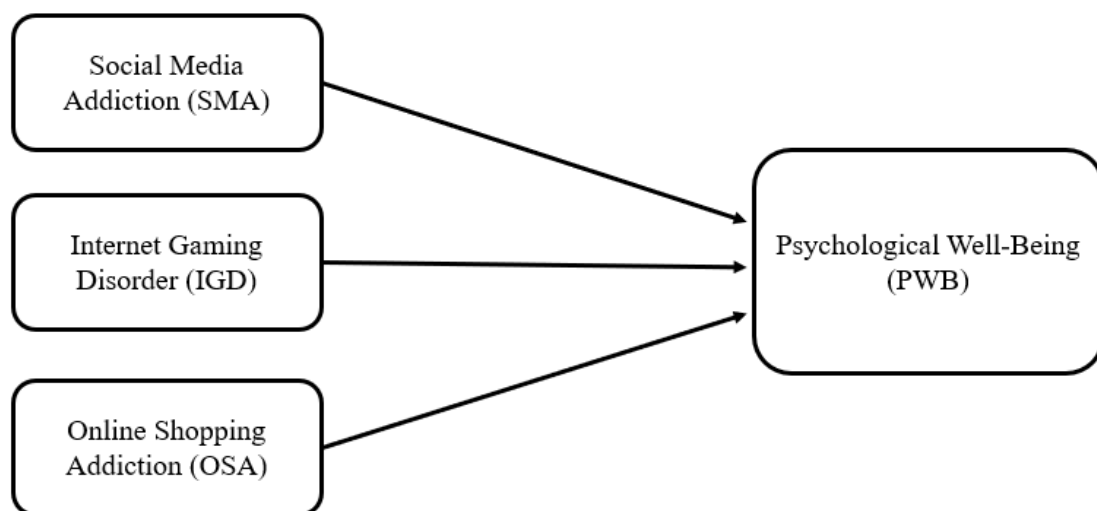
Chapter III

Methodology

Research Design

Data collection, analysis, and interpretation in this study were conducted using an online survey. The research design in this study employed a quantitative research approach. Quantitative design was referred to as the systematic planning and structuring of research or experiments that involved the collection and analysis of numerical data. Scientific studies commonly used it to measure and quantify relationships, patterns, or phenomena (Bhandari, 2020a). Prior to examining SMA, IGD, and OSA as major predictors of PWB, a quantitative design was helpful and followed the study premise.

To identify patterns, correlations, and trends, quantitative research entailed gathering and evaluating numerical data, as stated by Creswell and Creswell (2018). It was objective, systematic, and based on statistical techniques. Common quantitative methods included content analysis, experiments, and surveys. This approach enabled researchers to identify patterns, relationships, and trends with a higher degree of certainty, fostering a more robust foundation for drawing conclusions and making informed decisions (Verhoef & Casebeer, 1997).

Prior to testing the hypotheses, descriptive information about the respondents' SMA, IGD, and OSA was gathered using the PWB survey. Structured tools were utilized to assess participants' views, actions, and emotions concerning the variables and hypotheses outlined in the survey design. The instruments that were used in the current study's survey mostly assessed the respondents' SMA, IGD, and OSA. Similar to this, the cross-sectional design

was used to collect data from a population at one particular moment in time. It gave an overview by simultaneously gathering data from several people or groups (Setia, 2016).

Sampling Method

The non-probability sampling methods, which were the snowball sampling method and the purposive sampling method were used in the present study. Non-probability sampling was used in this study as it was not possible to guarantee that every participant could be randomly selected for the study (Nikolopoulou, 2022a). The non-probability sampling method was deemed suitable for use in studies that specifically addressed the research requirements, as the representativeness of the respondents was important for the analysis and discussion of the findings (Fleetwood, 2018). Prior to the criteria necessary for the present study, the participants were incapable of selecting individuals from the population randomly.

In the current study, the snowball sampling method was applied to select participants from a specific population that was difficult to access or define. Initially, a small group of participants who met the criteria of the study was selected. Then, these participants were asked to refer to others who also met the criteria, leading to a "snowball effect" as the sample size grew (Nikolopoulou, 2022b). This approach was particularly valuable when studying populations that were rare, hidden, or challenging to reach using traditional sampling methods. The snowball sampling method was able to access hard-to-reach populations (Kirchherr & Charles, 2018).

Furthermore, the purposive sampling method was also applied in this study. A purposeful selection of respondents based on inclusion and exclusion criteria was carried out using a purposive sampling technique to guarantee the representativeness of the sample and

the accuracy of the results. The inclusive criteria of the participants in this study were: (1) Malaysian, (2) aged between 18 and 26 years old, a stage of transition in life when young people were typically expected to start their businesses, get married, and start families, become financially independent, and take on responsible roles as active and contributing members of the community (Bonnie et al., 2015), and (3) had at least one year's experience engaging in social media, online gaming, and online shopping.

Sample Size

In this study, to decide the required number of participants, G*Power version 3.1.9.7 has been utilized. G*Power is a statistical power analysis software that was developed by Faul et al. (2007) and designed to assist researchers in determining the statistical power of their studies. In the present study, G*power aided in the determination of the minimum sample size required for data collection. This software can ensure that the present study was adequately powered to detect meaningful effects and draw reliable conclusions.

The effect size for each predictor has been calculated using the formula, $f^2 = \frac{R^2}{1-(R^2)}$. The average effect size was .17, the probability of alpha error was .05 and the statistical power was .95. The predictors included were SMA, OSA, and IGD with correlation coefficient scores of -0.316, 0.37, and 0.434. The total sample size that was generated by the final calculation of G*Power was 106 (see Appendix A).

Location

For this study, the selected study site was within Malaysia. Data has been gathered from various states across the country, and participants were required to present in Malaysia during the data collection period. The survey was distributed through multiple sources,

including Microsoft Teams, WhatsApp, WeChat, Instagram, Facebook, and physical Quick Response (QR) codes.

Participants

There were three inclusive requirements for participants in this study, which were: (1) Malaysians, (2) aged between 18 to 26, (all occupations are acceptable including students), and (3) at least a year's experience engaging in social media, online gaming, and online shopping. All social media were acceptable such as WeChat, Facebook, Twitter, and Instagram. Online gaming included first-person shooters (Prison Escape, Alien Rage), strategy games (Age of Empires IV, Crusader Kings III, Company of Heroes), and massively multiplayer online role-playing games (MMORPG) (Guild Wars 2, World of Warcraft). Online shopping can be through any platform such as Shopee, Lazada, or online any official website (YSL, Channel). Participants had to engage in three aspects, those who online fulfilled one or two aspects were not able to be the participants. Those who did not fulfill the inclusive requirements have been excluded from the current study.

Research Instruments

Bergen Social Media Addiction Scale (BSMAS)

Andreassen et al. (2012) developed the BSMAS to measure the seriousness of an individual's experience of SMA symptoms. The scale consisted of a total of six items such as "You spend a lot of time thinking about social media or planning how to use it.", "You use social media in order to forget about personal problems.", "You become restless or troubled if you are prohibited from using social media.", and others (see Appendix B). Each item represented a core element of addictive behaviours, which were: (1) salience, (2) tolerance, (3) mood modification, (4) conflict, (5) withdrawal, and (6) relapse. These items were rated

using a 5-point Likert scale (1 = "very rarely", 2 = "rarely", 3 = "sometimes", 4 = "often", 5 = "very often"). The total score of BSMAS was to sum up all scores of the six items ranging from 6 to 30. Regarding the interpretation of scores, greater scores indicate a higher severity of SMA symptoms experienced. The scale demonstrated good internal consistency with a Cronbach's alpha (α) of .767. (see Appendix E).

Internet Gaming Disorder 9 items Short Form (IGD9-SF)

The IGD9-SF Pontes and Griffiths (2015) was developed to measure the seriousness of the IGD symptoms in the last 12 months. There was a total of nine items included in this scale such as "Do you feel irritability, anxiety or even sadness when you try to either reduce or stop your gaming activity?", "Have you continued your gaming activity despite knowing it was causing problems between you and other people?", "Do you play in order to temporarily escape or relieve a negative mood (e.g., helplessness, guilt, anxiety)?", and others (see Appendix B). These items were rated with a 5-point Likert scale (1 = "never", 2 = "rarely", 3 = "sometimes", 4 = "often", 5 = "very often"). The scale's total score was to sum up all scores of the nine items ranging from 9 to 45. For the scoring interpretation, the higher the scores, the higher the level of seriousness of the IGD symptoms. The scale exhibited strong internal consistency, as evidenced by a Cronbach's alpha (α) of .912 (see Appendix E).

Bergen Shopping Addiction Scale (BSAS)

Andreassen et al. (2015) developed the BSAS to measure shopping addiction based on seven behavioural criteria, which are salience, mood modification, conflict, tolerance, relapse, withdrawal, and problems in the last 12 months. The scale consisted of a total of 7 items such as "Thought about shopping/buying thing all the time.", "Shopped/bought so much that it negatively affects my daily obligations (e.g., school and work).", "Feel bad if I

for some reason am prevented from shopping/buying things.", and others (see Appendix B).
These items were rated by using a 5-point Likert scale (1 = "completely disagree", 2 =
"disagree", 3 = "neither disagree nor agree", 4 = "agree", 5 = "completely agree"). In terms
of scoring interpretation, elevated scores correspond to increased levels of shopping
addiction. The scale demonstrated good internal consistency, as reflected by a Cronbach's
alpha (α) of .881 (see Appendix E).

Flourishing Scale

Diener et al. (2009) developed the Flourishing Scale to measure the important parts of
human functioning including positive relationships, feelings of competence, and life meaning
and purpose. The scale consisted of a total of eight items such as "I lead a purposeful and
meaningful life.", "My social relationships are supportive and rewarding.", "I am competent
and capable in the activities that are important to me.", and others (see Appendix B). These
items were rated with a 7-point Likert scale (1 = "strong disagree", 2 = "disagree", 3 =
"slightly disagree", 4 = "mixed or neither disagree nor agree", 5 = "slightly agree", 6 =
"agree", 7 = "strongly agree"). The scale's total score was to sum up all scores of the eight
items ranging from 8 to 56. For the scoring interpretation, the higher scores reflected that the
individual perceived his or her different parts of human functioning in a very positive way.
The scale exhibited strong internal consistency, with a Cronbach's alpha (α) of .901,
indicating good reliability (see Appendix E).

Procedure

Before commencing data collection, ethical approval was sought by submitting an
application to the Scientific and Ethical Review Committee (SERC) at Universiti Tunku
Abdul Rahman (UTAR) (see Appendix H). This step was undertaken to ensure that the

present study adhered to the established ethical standards and guidelines, prioritizing participant welfare and data protection throughout the research process. The informed consent sheet was an essential component of the online survey, as it was included to ensure adherence to ethical standards in research settings. It helped to ensure that participants fully understood the purpose and risks of their involvement and respected their rights to make informed decisions about their participation. In addition, this also helped in promoting transparency and ethical conduct.

Non-probability sampling methods were implemented for various practical and strategic reasons. First, this method provided a more resource-efficient approach especially when facing difficulties in budget, time, or access to the targeted population. They provided a faster and more cost-effective alternative compared to the extensive resources that were required for probability sampling. Moreover, when the present study focused on specific subgroups with unique characteristics or when time constraints were a significant consideration, non-probability sampling methods had more advantages.

In this study, several instruments were utilized to measure both independent and dependent variables. The BSMAS was employed to assess SMA, while the BSAS was used for OSA. Additionally, the IGD9-SF gauged the presence of IGD. Prior to measure the dependent variable, namely PWB, the Flourishing Scale was administered. These instruments were chosen based on their established validity and reliability, ensuring that the data collected was suitable for the present study's objectives.

The survey administration process involved utilizing Qualtrics, where the mentioned scales BSMAS, BSAS, IGD9-SF, and Flourishing Scale were included in the survey (see

Appendix C). Participants were asked to provide their demographic information within the survey to collect relevant background information. Before participation, individuals were presented with a request for informed consent, seeking their approval for the utilization of their data in the current study. The survey was distributed through various platforms such as WhatsApp, WeChat, Instagram, Facebook, Microsoft Teams, and physical QR code. These multiple approaches aimed to increase accessibility and participation.

Pilot study

A pilot study with a small sample size has been conducted to assess data collection instruments, refine sample recruitment strategies, and test various research techniques (Hassan et al., 2006). This preparation was essential before scaling up to a larger sample size as it played an important role in identifying potential issues, refining methodologies, and ensuring feasibility before committing to the actual study. It also helped in validating the research tools, assessing data collection processes, and improving the overall quality of the research by addressing unforeseen challenges. In this pilot study of the present study, 30 participants were recruited for the survey. The Cronbach's Alpha reliability of the instruments was tested after the completion of data collection, resulting in > .80 reliability for IGD9-SF, BSAS, and Flourishing Scale, while > .78 reliability for BSMAS (see Appendix D).

Data Analysis

The current study utilized the Statistical Package for the Social Sciences (SPSS) version 29 for data analysis. Reliability analyses for all variables of the pilot study were conducted. Additionally, the reliability of the variables in the actual study was examined by using Cronbach's alpha coefficient to determine the consistency of the constructs. There were

three ranges for Cronbach's alpha (α) coefficient value mentioned by George and Mallery (2003), which were: (1) between .70 and .79 indicating "fair", (2) between .80 and .89 indicating "good", and (3) .90 and above indicating "perfect". In the present study, the outcome variable was PWB, while the predictor variables were SMA, IGD, and OSA.

Normality Assumptions

In the present study, normality assumptions were assessed using various methods, including Kolmogorov-Smirnov (K-S) test, the skewness and kurtosis, probability-probability (P-P) plot, and histogram analyses.

Kolmogorov-Smirnov (K-S) Test. According to Trochim and Donnelly (2006), the K-S test compared the collected data with the normal probability distribution to ensure the distribution was continuous. In the K-S test, the *p*-value must be greater than .05 indicating that the sample distribution had no significant differences with the normal distribution.

Skewness and Kurtosis. Skewness was used to measure the symmetry of the probability distribution, while kurtosis was used to examine the peak height of the probability distribution (Mishra et al., 2019). Skewness and kurtosis values within the range of -2 to +2 were considered acceptable in this study. (George & Mallery, 2010).

Probability-Probability (P-P) Plot. According to Ramachandran and Tsokos (2015), the P-P plot was defined as a graphical representation of how an observed cumulative data set fitted with the expected cumulative data set. P-P plots displaying data points approximately aligned along the straight and linear line of expected cumulative data suggested that the observed data followed a normal distribution.

Histogram. According to Mishra et al. (2019), the histogram was defined as a graphical tool to display the distribution of frequency to identify the normal distribution of the sample data. The bell-shaped histogram with only one peak and symmetrically distributed reflected the normal distribution of the sample data.

Descriptive Statistics

Descriptive statistics was the statistical analysis that summarized and organized the demographic variables of the participants in a data set by measuring the frequency, central tendency, and variability (Bhandari, 2020b). In this study, analyses were conducted to assess the frequencies, means, and standard deviations of demographic variables including age, ethnicity, country, gender, education level, and occupation, as well as the frequency and duration of engagement in social media, Internet gaming, and online shopping.

Multiple Linear Regression (MLR) Assumptions

In this study, MLR assumption was employed to investigate the predictive effects of SMA, IGD, and OSA on PWB. A significance value of .05 was utilized as the threshold for all statistical analyses. Assumptions such as independence of error, multicollinearity, normality of residuals, linearity, and homoscedasticity were assessed to ensure the validity of MLR. Additionally, the multivariate outliers and influential cases were examined by using Cook's distance, Mahalanobis distance, and centered leverage value.

Independence of Error. Independence of error was defined as errors that were independent and did not have a relationship with each other (Ernst & Albers, 2017). The independence of error in the study was assessed using the Durbin-Watson test (Chen, 2016). The acceptable range of Durbin-Watson was from 1.5 to 2.5, and a value that was closer to 2

indicated congruence to the assumptions which meant a low correlation between errors (Alvandpur et al., 2020).

Multicollinearity. Multicollinearity occurred when two or more independent variables were highly correlated (Glen, 2015). Multicollinearity in the study was evaluated using the values of tolerance and variance inflation factor (VIF). According to Pallant (2007), the tolerance value should not be less than .10, while the VIF value should not be greater than 10.

Normality of Residuals, Linearity, and Homoscedasticity. The normality of residuals, linearity, and homoscedasticity was assessed by examining scatterplots of the residuals. According to Osborne and Waters (2019), linearity was defined as the linear relationship between the independent variables and the outcome variable, while homoscedasticity happened when the variance of residuals was in the same values as the independent variables. The plots of residuals that were distributed normally, randomly, and equally along the zero on the X-axis and Y-axis on the scatterplot indicated no violation of the assumptions of the normality of residuals, linearity, and homoscedasticity (Osborne & Waters, 2019).

Multivariate Outliers and Influential Cases. Outliers in the study were identified using Cook's distance, Mahalanobis distance, and centered leverage value. An outlier was flagged when the Cook's distance value of the case exceeded 1 (Cook & Weisberg, 1982), the Mahalanobis distance values were considered acceptable if they were lower than 15 for a sample size of 100 and 25 for a sample size of 500 (Barnett & Lewis, 1994), and the

Leverage's value after multiplying two, $2 \times \left[\frac{(k+1)}{n}\right]$, was smaller than the values (Dhakal, 2017).

Chapter IV

Result

Data Cleaning

Data was cleaned to improve the quality of data through the elimination of data that were erroneous, invalid, and inconsistent, thereby ensuring a more accurate representation of the target group (Ridzuan et al., 2019). Initially, 140 responses were collected in this study.

Disqualified Data

There were few disqualified data found in the present study. The inclusive criteria for participants in this study were defined as follows: (1) being Malaysian, (2) being between 18 and 26 years old, and (3) having engaged in social media, Internet gaming, and online shopping for at least one year. The responses that did not meet the inclusive criteria were considered irrelevant data. Therefore, six sets of responses that did not fulfill the inclusive criteria of targeted participants in the present study were removed from the present study, including one response from a non-Malaysian and five responses that out of the age range were removed from the present study. Additionally, eight responses that did not agree with the informed consent part were also removed from the present study due to ethical issues. Thus, there were 126 sets of responses remained in the present study after removing the irrelevant data.

Missing Data

Datasets with lower than 90% completion of data were highly biased (Jakobsen et al., 2017). Therefore, 19 responses with more than 10% incomplete sections on the scales were excluded from this study. As a result, 107 sets of responses were retained for further analysis.

Normality Assumptions

The normality assumptions in the present study were assessed using various methods, including skewness and kurtosis analysis, the K-S test, P-P plots, and histograms.

Skewness and Kurtosis

According to George and Mallery (2010), the acceptable ranges for skewness and kurtosis value were ± 2, which was within -2 and 2. As shown in Table 4.1, the values of skewness and kurtosis for SMA, IGD, OSA, and PWB were within the acceptable range which was between -2 and +2 indicating that there was no violation found in skewness and kurtosis for all variables in the present study.

Table 4.1

Skewness and Kurtosis

Variable	Skewness	Kurtosis
SMA	.100	.436
IGD	.622	.088
OSA	-.230	-.622
PWB	-.096	-.477

Kolmogorov-Smirnov (K-S) Test

According to Trochim and Donnelly (2006), the *p*-value in the K-S test must be greater than .05 indicating that the sample distribution has no significant differences with the normal distribution. There were two violations found in two variables which were OSA, $D(107) = .14, p < .001$, and PWB, $D(107) = .09, p = .027$, as the significant values of OSA and PWB were lower than .05. There was no violation for another two variables which were

SMA, $D(107) = .08$, $p = .060$, and IGD, $D(107) = .09$, $p = .051$, as the significant values of SMA and IGD were higher than .05 (see Appendix F).

Probability-Probability (P-P) Plot

Based on the presentation of P-P plots for SMA, IGD, OSA, and PWB, no violations were observed for these variables. The plots of each variable exhibited a scattered distribution approximately along the straight line of expected cumulative data. This suggests that the data in the present study followed a normal distribution (Ramachandran & Tsokos, 2015) (see Appendix F).

Histogram

As presented in the histograms of each variable, there was no violation found for all variables which were SMA, IGD, OSA, and PWB because all the histograms of each variable were displayed in the bell-shaped distribution, indicating that data of the present study were normally distributed (Mishra et al., 2019) (see Appendix F).

Summary of Normality Assumptions

In summary, there were no violations of normality found in skewness and kurtosis, histograms, and P-P plots. However, two variables, OSA and PWB, violated the normality in the K-S test. However, the assumptions of normality in the present study were met because the majority of the indicators showed no violations of normality.

Descriptive Statistics

After removing the participants who did not fulfill the inclusive criteria in the process of data screening and cleaning, there was a total of 107 sets of responses retained in the present study. According to Table 4.2, the range of the participants' age for this study was between 18 to 26 years old ($M = 21.94$, $SD = 1.816$). Predominantly, females ($n = 76$, 71%) were more than males ($n = 31$, 29%) in the present study. All participants were Malaysian ($n = 107$, 100%) and had at least one year of engagement in social media, Internet gaming, and online shopping ($n = 107$, 100%).

As indicated in Table 4.2, a significant disparity was observed among participants in certain demographic variables, such as race, current condition (e.g., studying or working), education level, and occupation. Predominantly, the participants were Chinese ($n = 95$, 88.8%), studying ($n = 78$, 72.9%), education level under Bachelor's degree ($n = 70$, 65.4%), and student ($n = 79$, 73.8%).

As presented in Table 4.2, for participants' duration spent on social media, Internet gaming, and online shopping, it was found that the majority of participants spent 3 hours and above on social media per day ($n = 68$, 63.6%), less than 1 hour on Internet gaming in a week ($n = 39$, 36.4%), and 1 hour to 2 hours on online shopping in a week ($n = 43$, 40.2%).

Table 4.2

Descriptive statistics

Demographic Variables	*n*	*%*	*M*	*SD*
Age			21.94	1.816
Malaysian			1.00	.000
Yes	107	100.0		
No	0	0		
Gender			1.71	.456
Male	31	29.0		
Female	76	71.0		
Race			1.18	.529
Chinese	95	88.8		
Malay	5	4.7		
Indian	7	6.5		
Are you studying or working?			1.27	.447
Studying	78	72.9		
Working	29	27.1		
Education level			4.55	.815
Primary school	2	1.9		
Secondary school	13	12.1		
Pre-U/Foundation studies	19	17.8		
Bachelor degree	70	65.4		
Master's degree/PhD	3	2.8		
Occupation			1.60	1.098
Student	79	73.8		

Table 4.2

Descriptive statistics (continued)

Demographic Variables	*n*	*%*	*M*	*SD*
Unemployed	4	3.7		
Employed for wages	14	13.1		
Self-employed	9	8.4		
Other	1	.9		
Engagement in social media (at least 1 year)			1.00	.000
Yes	107	100.0		
No	0	0		
Engagement in Internet gaming (at least 1 year)			1.00	.000
Yes	107	100.0		
No	0	0		
Engagement in online shopping (at least 1 year)			1.00	.000
Yes	107	100.0		
No	0	0		
Duration spent on social media (per day)			3.43	.825
Less than 1 hour	1	.9		
1 hour to 2 hours	20	18.7		
2 hours to 3 hours	18	16.8		
3 hours and above	68	63.6		
Duration spent on Internet gaming (per week)			2.32	1.233
Less than 1 hour	39	36.4		
1 hour to 2 hours	25	23.4		
2 hours to 3 hours	13	12.1		

Table 4.2

Descriptive statistics (continued)

Demographic Variables	*n*	*%*	*M*	*SD*
3 hours and above	30	28.0		
Duration spent on online shopping (per week)			1.96	.971
Less than 1 hour	40	37.4		
1 hour to 2 hours	43	40.2		
2 hours to 3 hours	12	11.2		
3 hours and above	12	11.2		

Note. N = 107.

Multiple Linear Regression (MLR) Assumptions

In the present study, MLR assumptions were thoroughly evaluated, including the independence of error, multicollinearity, normality of residuals, linearity, and homoscedasticity. Furthermore, multivariate outliers and influential cases were examined using Mahalanobis distance, Cook's distance, and centered leverage value.

Independence of data

One of the assumptions for conducting MLR analysis was all responses from the participants must be independent from other participants (Berry, 1993). Indeed, the assumption of independence of participants' data was met in the present study, as data collection commenced because each participant's data remained independent of others throughout the study.

Types of Variables

In the present study, the assumption that all variables used in the MLR analysis were continuous was met, as all variables used were continuous variables.

Independence of Errors

According to Alvandpur et al. (2020), the range of Durbin-Watson was accepted if it falls between 1.5 and 2.5, and a value that was closer to 2 indicates higher congruence. The Durbin-Watson value for this study was 2.074 which was between the acceptable range from 1.5 to 2.5, and it was closer to 2 (see Appendix G). Therefore, no violation of the assumption of independence of errors was found in this study. This indicates a higher congruence of data and a lower correlation between errors.

Multicollinearity

In the present study, multicollinearity assumptions were assessed using tolerance and VIF values for each independent variable. The tolerance value must be greater than .10 while the VIF value must be lower than 10 (Pallant, 2007). As a result, all tolerance values for predictor variables exceeded .10, and all VIF values were below 10. Therefore, no violations of multicollinearity assumptions were detected (see Appendix G).

Normality of Residuals, Linearity, and Homoscedasticity

The normality of residuals, linearity, and homoscedasticity in the present study were examined by using the scatterplot. According to Osborne and Waters (2019), the assumptions of the normality of residuals, linearity, and homoscedasticity were met if the plots of residuals were distributed normally, randomly, and equally along the zero line on the scatterplot. As shown in Figure 4.1, it was found that the residuals were distributed

approximately normally, randomly, and equally along the zero line on the scatterplot, indicating that the assumptions of normality of residuals, linearity, and homoscedasticity were met. The outlier which was case 79 was examined in the next section to determine whether it was a multivariate outlier that should be removed from this study.

Figure 4.1

Scatterplot
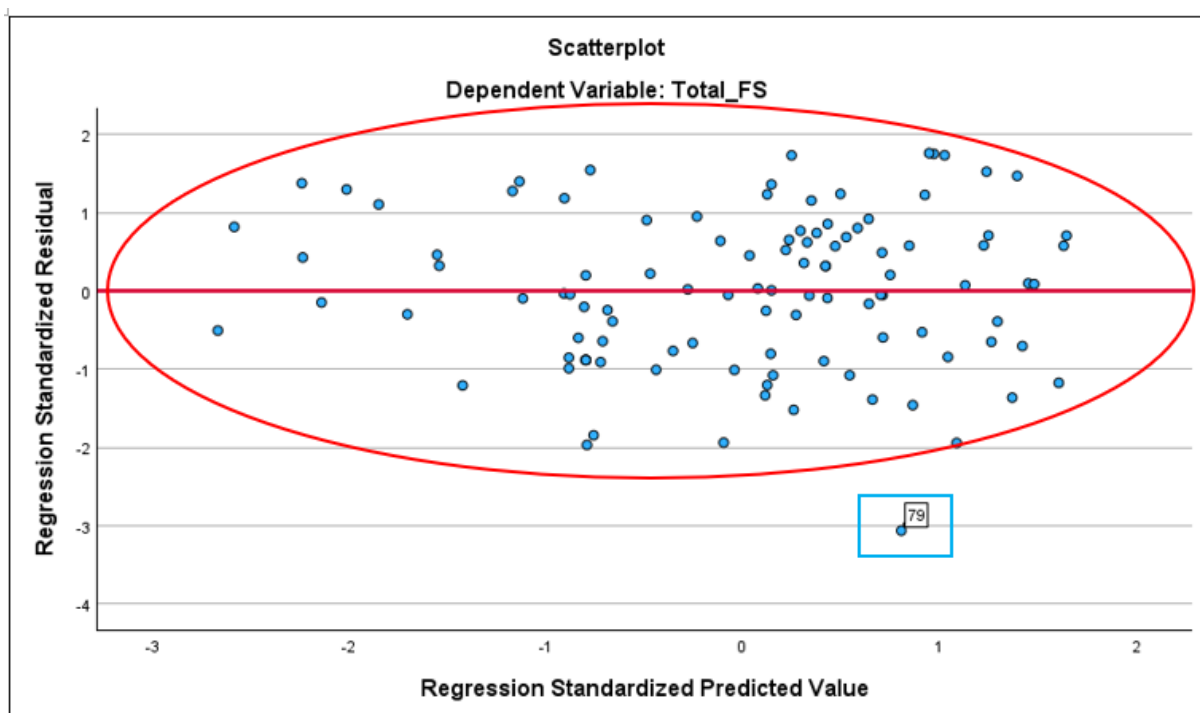
Multivariate Outliers and Influential Cases

In the present study, multivariate outliers and influential cases were assessed using Mahalanobis distance, Cook's distance, and centered leverage value. Outlier was identified according to the following criteria: (1) Mahalanobis distance values lower than 15 for a sample size of 100 and 25 for a sample size of 500 (Barnett & Lewis, 1994), (2) Cook's distance value was greater than 1 (Cook & Weisberg, 1982), and (3) leverage's value after multiplying two, $2 \times \left[\frac{(k+1)}{n}\right]$, was smaller than the values (Dhakal, 2017). By using the

casewise analysis with a standard deviation of two, there was one case that was potentially a multivariate outlier in the present study which was case 79 because the standard residual was greater than 2 standard deviations (see Appendix G).

The value of Mahalanobis distance for case 79 was 3.62704 which was lower than 25 (see Appendix G). Therefore, there was no violation of Mahalanobis distance. Additionally, the value of Cook's distance for case 79 was .11173 which was lower than 1 (see Appendix G). Therefore, there was also no violation of Cook's distance. Plus, the centered leverage value after multiplying two for this study was .07477, which was calculated from the equation of $2 \times \left[\frac{(3+1)}{107}\right]$. The centered leverage value for case 79 was .03422 which was lower than .07477 (see Appendix G). Therefore, there was also no violation of centered leverage value. In conclusion, no multivariate outlier was found in the present study and no cases should be removed from this study.

Multiple Linear Regression (MLR) Analysis

In this study, the MLR analysis was conducted to examine the predictive roles of SMA, IGD, and OSA on PWB among young adults in Malaysia. Preliminary analyses were conducted to ensure no violation of the assumptions of independence of errors, multicollinearity, normality of residuals, linearity, homoscedasticity, and multivariate outliers. The model was statistically significant, $F(3, 103) = 4.247$, $p = .007$, and accounted for 8.4% of the variance (see Appendix G). As a result, IGD ($\beta = -.318$, $p = .005$), but not SMA ($\beta = .058$, $p = .611$) and OSA ($\beta = -.098$, $p = .334$), significantly predicted PWB among young adults in Malaysia (see Appendix G).

Summary of Findings

Table 4.3

Summary of Findings

Hypotheses	Decision
H1 : SMA negatively predicts PWB among young adults in Malaysia.	Not supported
H2 : IGD negatively predicts PWB among young adults in Malaysia.	Supported
H3 : OSA negatively predicts PWB among young adults in Malaysia.	Not supported

In conclusion, as presented in Table 4.3, hypothesis 2 was supported in the present study, while hypotheses 1 and 3 were not supported in the present study. The findings indicated that IGD was a significant predictor of PWB, but not SMA and OSA.

Chapter V

Discussion and Conclusion

H1: Social media addiction (SMA) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

In this study, the aim was to investigate whether SMA predicts PWB among young adults in Malaysia. The hypothesis posited that SMA would negatively predict PWB. However, contrary to the discussion, the result does not support the first hypothesis of this study. Results showed it was non-significant and it does not act as a predictor for PWB. The findings of this study challenge the widely held assumption that SMA is invariably linked to poor PWB. While previous research has often highlighted the negative consequence of excessive social media use (Alavi et al., 2011; Ostic et al., 2021; Sharma & Sharma, 2018; Swar & Hameed, 2017; Zsila & Reyes, 2023), specifically among young adults, our results suggest a more nuanced relationship. It shows that SMA may not be a significant predictor of PWB in the context of our sample which is among the young adults in Malaysia.

One of the potential explanations for this finding is the influence of cultural and contextual factors. Malaysia, similar to many other Asian countries, has unique cultural norms and values regarding social interactions and technology use. The role of social media in Malaysian society may differ from Western cultures, this will bring a different impact on PWB. This was proven as Malaysian is a collectivist culture that individuals tend to favour utilizing social media to cultivate and strengthen relationships, thereby facilitating the exchange of social support and information sharing among peers (Jackson & Wang, 2013; Siew et al., 2022). While excessive use or addiction to social media could bring negative consequences, it is also possible that moderate and purposeful engagement with social media

platforms contributes to social connectedness, self-expression, and emotional support, thereby enhancing PWB (Naslund et al., 2020; Ostic et al., 2021). Positive interactions and support received through social media platforms can enhance feelings of connectedness and well-being, particularly for individuals who may lack strong offline social ties (Yue et al., 2023).

The measurement of SMA and PWB score ranges from 6 to 30, the higher the score, the higher the risk of problematic social media use (Balamurugan, 2024). The article stipulated that a score of 24 or higher on the BSMAS is deemed the optimal clinical threshold for diagnosing SMA. However, the collected data indicate a mean score of 18.5, which falls below the optimal clinical threshold for diagnosing SMA. Furthermore, social media platforms are constantly changing and developing, and have increasingly integrated into various aspects of daily life, including business and work-related activities. The blurring of boundaries between personal and professional areas on the use of social media platforms may lead to unique stressors and challenges for individuals, particularly in terms of managing digital identities, maintaining work-life balance, and navigating online social dynamics.

Furthermore, individuals might differ when it comes to experiencing negative psychological effects from social media use. Personality traits such as extraversion and neuroticism have been shown to influence how individuals engage with and respond to social media platforms (Drążkowski et al., 2022). Individuals with higher levels of extraversion could experience more satisfaction and social support from online interactions (Harris et al., 2017), while individuals with higher levels of neuroticism could be more susceptible to negative outcomes such as anxiety and depression (Weed & Kwon, 2019). Thus, coping mechanisms play an important role in moderating the impact of social media use on PWB.

Individuals with effective coping skills, like seeking social support offline or actively participating in offline activities to release stress, could be better equipped to manage the potential negative consequences of excessive social media use (Varela et al., 2023).

H2: Internet gaming disorder (IGD) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

The result of this study supported our second hypothesis that IGD has been found to significantly and negatively predict PWB among young adults in Malaysia. This finding is consistent with previous research (Teng et al., 2020; Ruzyanei et al., 2021; Moore et al., 2021; Sabri & Yunus, 2021). Our results suggested that excessive engagement in Internet gaming activities might have negative effects (Brunborg et al., 2014) on an individual's PWB.

One of the possible explanations for this relationship is that excessive and uncontrolled gaming behaviour will lead an individual to neglect other important areas of life, such as social relationships, academics, occupational responsibilities, and physical health. This neglect might lead to increased levels of stress, anxiety, and depression among individuals with IGD (Lemmens et al., 2011). The immersive quality of online gaming environments has the potential to intensify sensations of loneliness and social isolation, especially when individuals apply gaming as an escapism tool to escape from stressors in the real world (Kuss & Griffiths, 2012). There are research works examining the role of Internet gaming as a maladaptive coping mechanism for individuals experiencing stress, trauma, or negative life events (Bowditch et al., 2024). Escaping into the virtual world through gaming may provide temporary relief from real-life challenges but ultimately perpetuate a cycle of

avoidance and withdrawal, increasing feelings of helplessness, loneliness, and emotional dysregulation (Király et al., 2015).

Besides, cultural factors could be one of the factors that shape the prevalence and consequences of IGD in Malaysia. This is mentioned due to the rapid proliferation of Internet access and the popularity of Internet gaming platforms in Malaysian society contributes to a higher rate of IGD among young adults (Mohamed et al., 2023). In addition, societal norms and expectations related to academic and occupational success might intensify the negative impact of IGD on PWB as it acts as an external stressor toward an individual (Naskar et al., 2016). This may lead the individuals to experience guilt or shame associated with their gaming behaviour.

Furthermore, online gaming environments facilitate social comparison processes and impact individuals' self-esteem and sense of identity (Esteves et al., 2021). Engaging in multiplayer games often involves comparing oneself to others based on the game achievement, skill levels, and virtual possessions, which can increase feelings of inadequacy, envy, and low self-worth, particularly among individuals who are prone to social comparison and validation-seeking bahaviours (Cheng & Li, 2014).

H3: Online shopping addiction (OSA) negatively predicts psychological well-being (PWB) among young adults in Malaysia.

The result shown in this study indicates OSA is a non-significant negative predictor for PWB. The result shown is not significant and more research should be done to confirm this area of validation. This finding prompts a thorough examination of several factors that may have contributed to the observed outcome.

One possible explanation for the non-significant relationship between OSA and PWB could be the cultural context of Malaysia. While previous research conducted in Western countries has demonstrated the significant negative impact of OSA on PWB (Durrani et al., 2022; Günüç & Keskin, 2016; Otero-López & Villardefrancos, 2014; Uzarska et al., 2023), it is reasonable that cultural norms and value in Malaysia influence individuals' perceptions and experiences of OSA behaviour. Malaysian cultures emphasize collectivism, social harmony, and family ties (Sumari et al., 2019), which may buffer the negative effects of excessive online shopping on PWB. Thus, in Malaysian daily life, it is observed that individuals who engage in excessive online shopping often tend to sell their purchased items at a discounted price to friends or family members who express interest in or require the products.

Another reason for the non-significant findings in our study is the measurement of OSA and PWB. Although attempts were made to employ valid and reliable measurement instruments, there is a possibility that the tools utilized in this study did not fully encompass the complexity of OSA on PWB among young adults in Malaysia. OSA includes many different areas, including compulsive buying behaviour, preoccupation with online shopping, and financial consequences (Granero et al., 2016). Thus, PWB involves multiple facets such as emotional well-being, life satisfaction, and self-esteem (Ryff, 2014). Therefore, future research could employ more comprehensive measures that capture the nuances of OSA and PWB to provide a more nuanced understanding of their relationship.

Implications

Theoretical Implication

In this study, the UGT, originally developed by Katz and Blumler (1974), was employed to investigate the predictions of SMA, IGD, and OSA on PWB among young adults in Malaysia. According to López et al. (2017), individuals are not passive consumers of media but active agents who select, interpret, and utilize media to satisfy their specific needs and gratifications.

The present study showed several gaps within the existing theoretical framework, specifically in the context of UGT. Although it offers valuable insights into individuals' motivations for media consumption, it may not fully capture the complexities of addictive behaviours such as SMA, IGD, and OSA. Specifically, this study highlights a gap in understanding the differential impact of these addictive behaviours on PWB among young adults in Malaysia. UGT acknowledges gratifications among media use but it may overlook the negative effects of excessive engagement with these platforms on well-being outcomes.

Building upon the foundation of UGT, this finding suggests that there is a need to extend the theoretical framework of UGT to account for the addictive nature of social media use, Internet gaming, and online shopping behaviour together with their implications for PWB. This could be done by integrating concepts from addiction psychology and other theories such as self-determination theory or transactional models of stress and coping. Researchers can work on it to develop a more comprehensive understanding of the underlying mechanisms causing the problematic Internet use and the impacts on an individual's PWB. Therefore, reframing UGT within a broader context by including digital

addiction and digital well-being may provide a more comprehensive understanding of the interplay between media usage patterns and well-being outcomes.

This finding leads to advancing theoretical understanding by explaining SMA, IGD, and OSA as predictors of PWB among young adults in Malaysia. Previous research has predominantly focused on gratification derived from online activities (López et al., 2017; Lu & Lin, 2022) while this study highlights the importance of involving the negative effects of excessive use of online behaviours on individuals' PWB. By confirming the hypothesis that only IGD negatively predicts PWB, these findings challenge the assumption that all forms of online addiction have a consistent negative impact on an individual's PWB. Thus, this nuanced understanding highlights the need for tailored interventions and prevention strategies that can address the specific risk factors related to various online addictive behaviours. Hence, by addressing these theoretical implications, future research can further clarify the complex interplay between media use, addictive behaviours, and PWB in the digital age.

Practical Implication

The findings of this study carry several practical implications for addressing IGD and its negative impact on PWB among young adults in Malaysia. First of all, there is a need for mental health professionals and clinicians to integrate screening for IGD into routine assessments, particularly when working with young adults presenting with symptoms of psychological distress. This can be done by using validated screening tools to help identify those individuals who are at risk of developing IGD and also allowing early intervention (Pontes & Griffiths, 2015).

In addition, it should be used in psychoeducation and increase awareness among the public about this issue. Public health campaigns and educational programs should raise awareness about the signs, symptoms, and consequences of IGD among young adults, parents, educators, and healthcare providers. These campaign helps to provide accurate information about the potential risks associated with excessive gaming and promoting responsible gaming habits can empower individuals to make informed choices about their gaming behaviour (King et al., 2013).

Furthermore, evidence-based interventions could be tailored to the needs of individuals with IGD and should be made accessible to young adults in Malaysia. For example, cognitive-behavioural therapy (CBT), motivational interviewing, person-centered therapy (PT), and mindfulness-based interventions are effective in reducing problematic gaming behaviour and also help in improving the PWB of an individual (King et al., 2013). Thus, policymakers should take note of regulatory measures that aim to minimize the risk of IGD. These should be implemented at the national and regional levels as they could include age restrictions on access to online gaming platforms, enforcement of gaming time limits, and regulations requiring game developers to incorporate features that promote healthy gaming habits like build-in breaks and parental control (Rutledge, 2023). Policy initiatives should also prioritize the provision of mental health services and resources for individuals experiencing gaming-related problems.

Moreover, multidisciplinary collaboration among healthcare professionals, educators, policymakers, and community stakeholders is essential in developing comprehensive strategies to prevent and address IGD effectively. By implementing these practical

implications, all parties can work together to reduce the negative impact of IGD on the PWB of young adults in Malaysia and promote healthier gaming behaviours and lifestyles.

Limitations

This research has several areas for improvement that could impact the precision and applicability of its findings. Firstly, the chosen sample size may not adequately represent the diversity among young adults in Malaysia. This was mentioned as the limited size may fail to encompass the varied characteristics and experiences of the entire young adult populace, potentially leading to an incomplete portrayal of the overall demographic. In addition, regarding the representativeness of the sample, specific groups might have been omitted from the study, potentially leading to misinterpretations of the overall scenario.

Secondly, the study is based on self-reported measures, which may introduce biases like social desirability or memory lapses. Participants' reliance on memory might result in inaccurate or false information being provided (Rosenman et al., 2011). Moreover, the subjective nature of self-reporting might distort the findings, as participants might provide responses influenced by social expectations or self-awareness.

Thirdly, the study's cross-sectional design means it only captures data at one specific moment, precluding the establishment of causal relationships between variables. While this design can describe relationships between different variables, it cannot determine causality. Consequently, the study cannot definitively prove causal connections between addictive behaviours and PWB, only indicating correlations (Solem, 2015).

Finally, despite employing established scales to measure various variables, these scales might not comprehensively cover all aspects of the concepts under scrutiny. Thus, the findings might not fully represent the intricate relationship between addictive behaviours and PWB. Additionally, the present study overlooks significant variables that could impact PWB, such as socioeconomic status, family dynamics, and mental health history.

Recommendations

Ensuring a diverse sample is essential to make research findings more widely applicable and capture Malaysian young adults' diverse experiences (Shea et al., 2022). By including participants from various demographic backgrounds such as different regions, ethnicities, and socioeconomic statuses, researchers can gain a deeper understanding of how addictive behaviours impact different segments of society. This approach allows for a nuanced understanding of the cultural and societal factors influencing addictive behaviours and their effects on mental well-being (Shea et al., 2022).

A mixed-methods approach, combining quantitative measures with qualitative interviews or observations, offers a holistic understanding of addictive behaviours and their impact on PWB. While quantitative data provide statistical insights into prevalence and correlations, qualitative data offer rich contextual information and insights into the underlying mechanisms driving addictive behaviours (George, 2021). This approach allows researchers to explore individual experiences and perceptions more comprehensively, resulting in more nuanced and insightful findings.

Longitudinal studies are vital for understanding the long-term effects of addictive behaviours on the mental well-being of Malaysian young adults (Caruana et al., 2015). By

observing changes over time, researchers can establish causal links between addictive behaviours, like excessive social media use or compulsive online shopping, and mental health. These studies provide a comprehensive view of how behaviours evolve and affect mental health, offering insights crucial for crafting effective interventions and preventive measures (Caruana et al., 2015).

Intervention development based on research findings is crucial for addressing the negative impacts of addictive behaviours on the mental well-being of Malaysian young adults. Tailored interventions and prevention programs can help individuals develop coping strategies and resilience against addictive behaviours, promoting healthier outcomes. These interventions may include educational programs, counselling services, or community-based support initiatives aimed at fostering healthy behaviours and enhancing mental well-being.

Further research should explore additional factors, such as cultural influences and social support networks, that may affect the mental well-being of Malaysian young adults. By understanding these factors, researchers can develop more tailored interventions that address the specific needs and challenges Malaysian young adults face. Additionally, exploring potential protective factors that mitigate the negative effects of addictive behaviours on mental well-being can inform the development of resilience-building interventions, ultimately promoting healthier outcomes for Malaysian young adults.

Conclusion

This study offered a critical examination of the predictive effects of SMA, IGD, and OSA on PWB among young adults in Malaysia, shedding light on the complexities of digital addictions. Contrary to traditional views that painted all digital addictions negatively, the

findings unveiled a nuanced picture. While IGD emerged as a predictor of reduced PWB, aligning with previous concerns, SMA and OSA exhibited no significant impact on PWB. This nuanced perspective suggested that these digital behaviours may, in certain contexts, have bolstered well-being by fostering social connections and emotional support, particularly within Malaysia's unique cultural milieu.

The study underscored the importance of considering cultural nuances when assessing the effects of digital addiction on mental health and advocating for tailored interventions to address harmful digital behaviours. While acknowledging limitations in sample size and study design, it underscored the need for further research employing diverse methodologies and larger samples to fully grasp the multifaceted impacts of digital engagement on well-being. This research underscored the evolving interplay between digital technology use and mental health, emphasizing the necessity for cultural sensitivity in tackling digital addictions.

The present study probed the predictive effects of SMA, IGD, and OSA on PWB among Malaysian young adults, drawing on the UGT. Employing measurement tools such as the BSMAS, IGD9-SF, BSAS, and Flourishing Scale, the present study delved into the motivations behind these addictive behaviours and their mental health implications. The findings not only contributed theoretically by extending the application of UGT to digital media consumption but also provided practical insights for personalized interventions, educational initiatives, and regulatory measures aimed at fostering responsible online behaviour and enhancing PWB.

Additionally, this study adopted a quantitative approach to explore the intricate connections between SMA, IGD, OSA, and PWB among Malaysian young adults. Data

collection through an online survey and non-probability sampling methods, coupled with descriptive statistics and MLR analysis, unveiled the complex relationship between digital behaviours and PWB. These insights underscored the imperative for tailored interventions and further cross-cultural research to foster a balanced relationship with digital technology and enhance overall well-being.

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Appendices

Appendix A

Sample Size Calculation

Social media addiction (SMA) with psychological well-being (PWB)

Table 5. Correlation coefficients between university students' social media addiction and social appearance anxiety, automatic thoughts and psychological well-being

	1	2	3	4
1. Social Media Addiction	-	.324**	.468**	-.316**
2. Social Appearance Anxiety		-	.382**	-.293**
3. Automatic Thoughts			-	-.647**
4. Psychological Well-Being				-

Note. *p < .05; **p < .01.

$$f^2 = \frac{(-0.316)^2}{1 - (-0.316^2)} = \frac{0.0999}{0.9001} = 0.11$$

Internet gaming disorder (IGD) with psychological well-being (PWB)

Table 7. Means, Standard Deviation, and Inter-correlation for Psychological Well-being and Internet Gaming Disorder (n=221)

Variables	M	SD	PWB	IGD
Psychological well-being	68.28	21.358		.4344**
Internet gaming disorder	26.83	8.019	.4344**	

**p < .000

$$f^2 = \frac{(0.4344)^2}{1 - (0.4344^2)} = \frac{0.1887}{0.8113} = 0.23$$

Online shopping addiction (OSA) with psychological well-being (PWB)

Table 1. Two-tailed Spearman correlation coefficients *r*.

	PBS	Age	Gender	School	Partnership	GAD-7	PHQ-9
Age	−0.15						
Gender	−0.01	0.11					
School	−0.05	0.03	−0.20*				
Partnership	0.19*	−0.10	−0.01	0.19*			
GAD-7	0.41**	−0.06	0.13	−0.18	−0.09		
PHQ-9	0.42**	−0.06	0.02	−0.19*	−0.25**	0.79**	
s-IATshop	0.56**	−0.25**	0.06	0.02	0.11	0.27**	0.37**

Note. n = 115 (listwise deletion of missing data).

Partnership: no partner = 0, having a partner = 1; PBS = Pathological Buying Screener, GAD-7 = 7-item Generalized Anxiety Disorder Questionnaire, PHQ-9 = Patient Health Questionnaire module for depression, s-IATshop = short version of the Internet Addiction Test modified for Internet-shopping.

$$f^2 = \frac{(0.37)^2}{1 - (0.37^2)} = \frac{0.1369}{0.8631} = 0.16$$
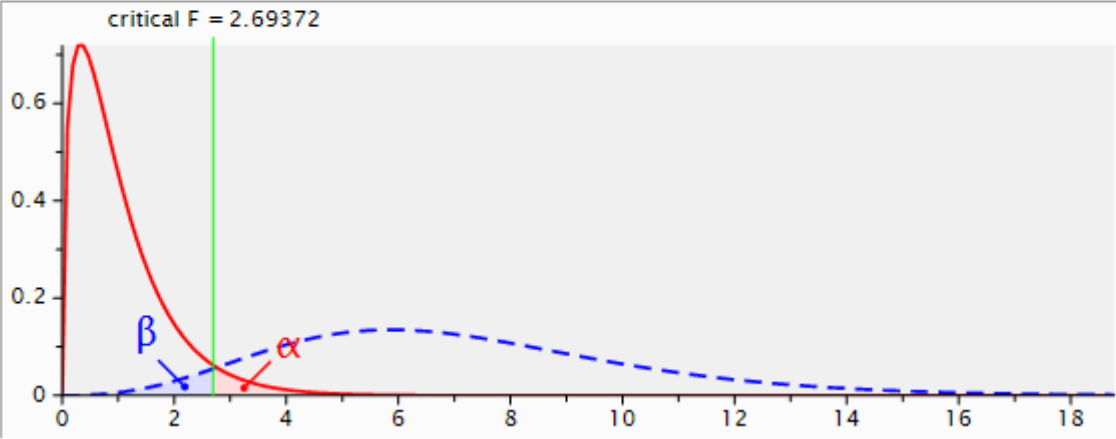
G*Power

$$f^2 = \frac{0.11 + 0.23 + 0.16}{3} = \frac{0.5}{3} = 0.17$$

Appendix B

Questionnaires

Bergen Social Media Addiction Scale (BSMAS)

Here are six statements to consider. For each, answer: (1) very rarely, (2) rarely, (3) sometimes, (4) often, or (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.

Internet Gaming Disorder 9 items Short Form (IGD9-SF)

Internet Gaming Disorder Scale–Short-Form (IGDS9-SF) (Pontes & Griffiths, 2015)

Instructions: These questions will ask you about your gaming activity during the past year (i.e., last 12 months). By gaming activity we understand any gaming-related activity that has been played either from a computer/laptop or from a gaming console or any other kind of device (e.g., mobile phone, tablet, etc.) both online and/or offline.

	Never	Rarely	Sometimes	Often	Very Often
1. Do you feel preoccupied with your gaming behavior? (Some examples: Do you think about previous gaming activity or anticipate the next gaming session? Do you think gaming has become the dominant activity in your daily life?)	○	○	○	○	○
2. Do you feel more irritability, anxiety or even sadness when you try to either reduce or stop your gaming activity?	○	○	○	○	○
3. Do you feel the need to spend increasing amount of time engaged gaming in order to achieve satisfaction or pleasure?	○	○	○	○	○
4. Do you systematically fail when trying to control or cease your gaming activity?	○	○	○	○	○
5. Have you lost interests in previous hobbies and other entertainment activities as a result of your engagement with the game?	○	○	○	○	○
6. Have you continued your gaming activity despite knowing it was causing problems between you and other people?	○	○	○	○	○
7. Have you deceived any of your family members, therapists or others because the amount of your gaming activity?	○	○	○	○	○
8. Do you play in order to temporarily escape or relieve a negative mood (e.g., helplessness, guilt, anxiety)?	○	○	○	○	○
9. Have you jeopardized or lost an important relationship, job or an educational or career opportunity because of your gaming activity?	○	○	○	○	○

Bergen Shopping Addiction Scale (BSAS)

Item	Wording
BSAS1	Thought about shopping/buying thing all the time
BSAS2	Shopped/bought things in order to change my mood
BSAS3	Shopped/bought so much that it negatively affects my daily obligations (e.g., school and work)
BSAS4	Felt you have to shop/buy more and more to obtain the same satisfaction as before
BSAS5	Have decided to shop/buy less, but not have been able to do so
BSAS6	Felt bad if I for some reason am prevented from shopping/buying things
BSAS7	Shopped/bought so much that it has impaired my well-being

Flourishing Scale

The Flourishing Scale

The Flourishing Scale is a brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism. The scale provides a single psychological well-being score.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research, 39,* 247-266.

Below are 8 statements with which you may agree or disagree. Using the 1–7 scale below, indicate your agreement with each item by indicating that response for each statement.

1. Strongly disagree
2. Disagree
3. Slightly disagree
4. Mixed or neither agree nor disagree
5. Slightly agree
6. Agree
7. Strongly agree

I lead a purposeful and meaningful life.
My social relationships are supportive and rewarding.
I am engaged and interested in my daily activities
I actively contribute to the happiness and well-being of others
I am competent and capable in the activities that are important to me
I am a good person and live a good life
I am optimistic about my future
People respect me

Scoring: Add the responses, varying from 1 to 7, for all eight items. The possible range of scores is from 8 (lowest possible) to 56 (highest PWB possible). A high score represents a person with many psychological resources and strengths.

Appendix C

Qualtrics Survey

Wholly owned by UTAR Education Foundation

Dear participants,

We are undergraduate students who are currently pursuing a Bachelor of Social Science (Honours) in Psychology at Universiti Tunku Abdul Rahman, Kampar. We are currently working on my assignment of UAPZ 3013 Final Year Project I. I would like to invite you to participate in this research study by helping me to complete this survey.

To participate in this survey, you are required to fulfill the following **CRITERIA**:-
(a) Malaysian
(b) 18 to 26 years old
(c) At least one year experience engaging in social media, Internet gaming, and online shopping

This questionnaires consist of 4 scales:-
1: Bergen Social Media Addiction Scale (BSMAS) - 6 items
2: Internet Gaming Disorder 9-item Short Form (IGDS-SF9) - 9 items
3: Bergen Shopping Addiction Scale (BSAS) - 7 items
4: Flourishing Scale - 8 items

This questionnaire will take about 10 - 20 minutes to complete.

For further inquiries, please do not hesitate to email us:-
Vivian Goh Zhi Xuan (viviangoh41@1utar.my)
Ng Jing Rou (jingroung@1utar.my)
Sim Jing Xuan Vadelyn (vadelynsim@1utar.my)

Your contribution is highly appreciated. Thank you.

→

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Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman

PERSONAL DATA PROTECTION NOTICE

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. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

a) Name
b) Identity card
c) Place of Birth
d) Address
e) Education History
f) Employment History
g) Medical History
h) Blood type
i) Race
j) Religion
k) Photo
l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

a) For assessment of any application to UTAR
b) For processing any benefits and services
c) For communication purposes
d) For advertorial and news
e) For general administration and record purposes
f) For enhancing the value of education
g) For educational and related purposes consequential to UTAR
h) For replying any responds to complaints and enquiries
i) For the purpose of our corporate governance
j) For the purposes of conducting research/ collaboration

3. 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.

4. 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.

5. 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.

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

8. You may access and update your personal data by writing to us at **EMAIL** below:
Vivian Goh Zhi Xuan (viviangoh41@1utar.my)
Ng Jing Rou (jingroung@1utar.my)
Sim Jing Xuan Vadelyn (vadelynsim@1utar.my)

Acknowledgment of Notice

○ I have been notified and that I hereby understood, consented and agreed per UTAR above notice.

○ I disagree, my personal data will not be processed.

→

Your Age

[   ]

Malaysian

○ Yes

○ No

Your Gender

○ Male

○ Female

Your Ethnicity

○ Chinese

○ Malay

○ Indian

○ Others (Please specify)

[   ]

Education Level

○ Did not have studies

○ Primary School

○ Secondary School

○ Pre-U / Foundation Studies

○ Bachelor Degree

○ Master Degree / PhD

Your occupation

○ Student

○ Out of work and looking for work

○ Employed for wages

○ Self-employed

○ Retired

○ Others (Please specify)

Do you engage in social media?

◯ Yes

◯ No

Do you engage in Internet games?

◯ Yes

◯ No

Do you engage in online shopping?

◯ Yes

◯ No

How many hours do you spend in social media in a day?

◯ Less than 1 hour

◯ 1 hour to 2 hours

◯ 2 hours to 3 hours

◯ 3 hours and above

How many hours do you spend in Internet gaming in a week?

- ○ Less than 1 hour
- ○ 1 hour to 2 hours
- ○ 2 hours to 3 hours
- ○ 3 hours and above

How many hours do you spend in online shopping in a week?

- ○ Less than 1 hour
- ○ 1 hour to 2 hours
- ○ 2 hours to 3 hours
- ○ 3 hours and above

→

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Bergen Social Media Addiction Scale (BSMAS)

The following questions are measuring seriousness of an individual's experience of social media addiction symptoms. Please rate the 6 items below with the rating scale from 1 (Very Rarely) to 8 (Very Often).

	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.	○	○	○	○	○

→

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Internet Gaming Disorder 9 items Short Form (IGD9-SF)

The questions will ask you about your gaming activity during the past year (i.e., last 12 months) to measure the the seriousness of the IGD symptoms. By gaming activity we understand any gaming-related activity that has been played either from a computer/laptop or from a gaming console or any other kind of device (e.g., mobile phone, tablet, etc.) both online and/or offline. Please rate the 9 items below with the rating scale from 1 (Never) to 5 (Very Often).

	1 = Never	2 = Rarely	3 = Sometimes	4 = Often	5 = Very Often
1. Do you feel preoccupied with your gaming behaviour? (e.g., Do you think about previous gaming activity or anticipate the next gaming? Do you think gaming has become the dominant activity in your daily life?	○	○	○	○	○
2. Do you feel more irritability, anxiety or even sadness when you try to either reduce or stop your gaming activity?	○	○	○	○	○
3. Do you feel the need to spend increasing amount of time engaged gaming in order to achieve satisfaction or pleasure?	○	○	○	○	○
4. Do you systematically fail when trying to control or cease your gaming activity?	○	○	○	○	○
5. Have you lost interests in previous hobbies and other entertainment activities as a result of your engagement with the game?	○	○	○	○	○
6. Have you continued your gaming activity despite knowing it was causing problems between you and other people?	○	○	○	○	○
7. Have you deceived any of your family members, therapists or others because the amount of your gaming activity?	○	○	○	○	○
8. Do you play in order to temporarily escape or relieve a negative mood (e.g., helplessness, guilt, anxiety)?	○	○	○	○	○
9. Have you jeopardized or lost an important relationship, job or an educational or career opportunity because of your gaming activity?	○	○	○	○	○

Bergen Shopping Addiction Scale (BSAS)

The following questions are measuring the shopping addiction based on seven behavioural criteria, which are salience, mood modification, conflict, tolerance, relapse, withdrawal, and problems in the last 12 months. Please rate the 7 items below with the rating scale from 1 (Completely Disagree) to 5 (Completely Agree).

	1 = Completely Disagree	2 = Disagree	3 = Neither Disagree Nor Agree	4 = Agree	5 = Completely Agree
1. Thought about shopping/buying thing all the time.	○	○	○	○	○
2. Shopped/bought things in order to change my mood.	○	○	○	○	○
3. Shopped/bought so much that it negatively affects my daily obligations (e.g., school and work).	○	○	○	○	○
4. Felt you have to shop/buy more and more to obtain the same satisfaction as before.	○	○	○	○	○
5. Have decided to shop/buy less, but not have been able to do so.	○	○	○	○	○
6. Felt bad if I for some reason am prevented from shopping/buying things.	○	○	○	○	○
7. Shopped/bought so much that it has impaired my well-being.	○	○	○	○	○

→

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Flourishing Scale

The following questions are measuring the important parts of human functioning including positive relationships, feelings of competence, and life meaning and purpose. Please rate the 8 items below with the rating scale from 1 (Strongly Disagree) to 7 (Strongly Agree).

	1 = Strong Disagree	2 = Disagree	3 = Slightly Disagree	4 = Mixed or Neither Agree Nor Disagree	5 = Slightly Agree	6 = Agree	7 = Strongly Agree
1. I lead a purposeful and meaningful life.	○	○	○	○	○	○	○
2. My social relationships are supportive and rewarding.	○	○	○	○	○	○	○
3. I am engaged and interested in my daily activities.	○	○	○	○	○	○	○
4. I actively contribute to the happiness and well-being of others.	○	○	○	○	○	○	○
5. I am competent and capable in the activities that are important to me.	○	○	○	○	○	○	○
6. I am a good person and live a good life.	○	○	○	○	○	○	○
7. I am optimistic about my future.	○	○	○	○	○	○	○
8. People respect me.	○	○	○	○	○	○	○

→

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We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix D

Reliability Analysis for Pilot Study

Bergen Social Media Addiction Scale (BSMAS)

Reliability Statistics

Cronbach's Alpha	N of Items
.784	6

Internet Gaming Disorder 9 items Short Form (IGD9-SF)

Reliability Statistics

Cronbach's Alpha	N of Items
.912	9

Bergen Shopping Addiction Scale (BSAS)

Reliability Statistics

Cronbach's Alpha	N of Items
.893	7

Flourishing Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.865	8

Appendix E

Reliability Analysis for Actual Study

Bergen Social Media Addiction Scale (BSMAS)

Reliability Statistics

Cronbach's Alpha	N of Items
.767	6

Internet Gaming Disorder 9 items Short Form

Reliability Statistics

Cronbach's Alpha	N of Items
.912	9

Bergen Shopping Addiction Scale (BSAS)

Reliability Statistics

Cronbach's Alpha	N of Items
.881	7

Flourishing Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.901	8

Appendix F

Normality Assumptions Checking

Kolmogorov-Smirnov (K-S) Test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total_BSMAS	.084	107	.060	.977	107	.065
Total_IGDS_SF9	.086	107	.051	.953	107	<.001
Total_BSAS	.144	107	<.001	.966	107	.008
Total_FS	.092	107	.027	.984	107	.226

a. Lilliefors Significance Correction

Probability-Probability (P-P) Plot

Normal P-P Plot of Total_BSMAS

Normal P-P Plot of Total_IGDS_SF9

Normal P-P Plot of Total_BSAS

Normal P-P Plot of Total_FS

Histogram

Histogram

Mean = 16.51
Std. Dev. = 4.618
N = 107

Histogram

Mean = 20.84
Std. Dev. = 8.053
N = 107

Histogram

Mean = 18.5
Std. Dev. = 6.114
N = 107

Histogram

Mean = 40.58
Std. Dev. = 7.723
N = 107
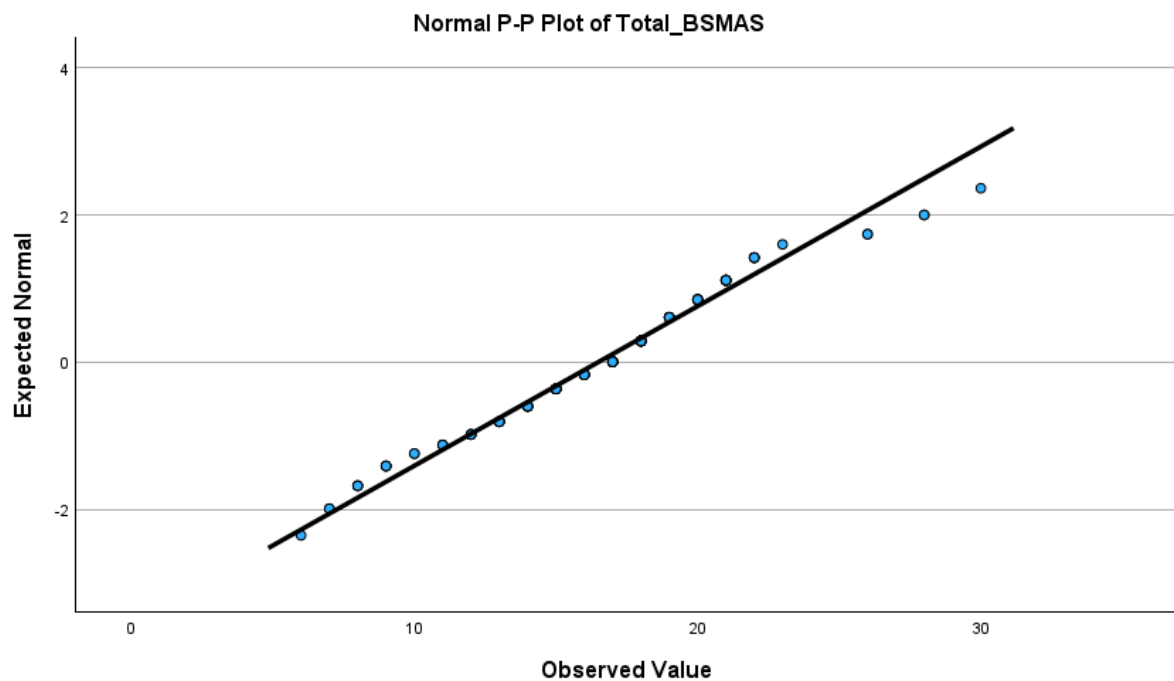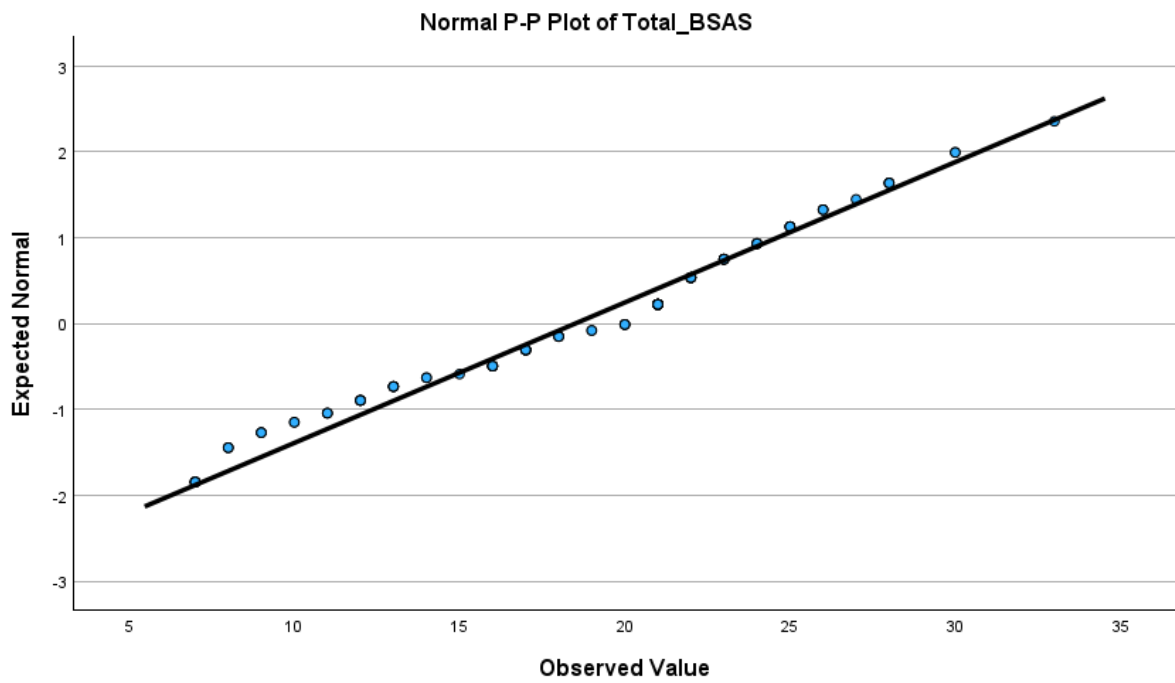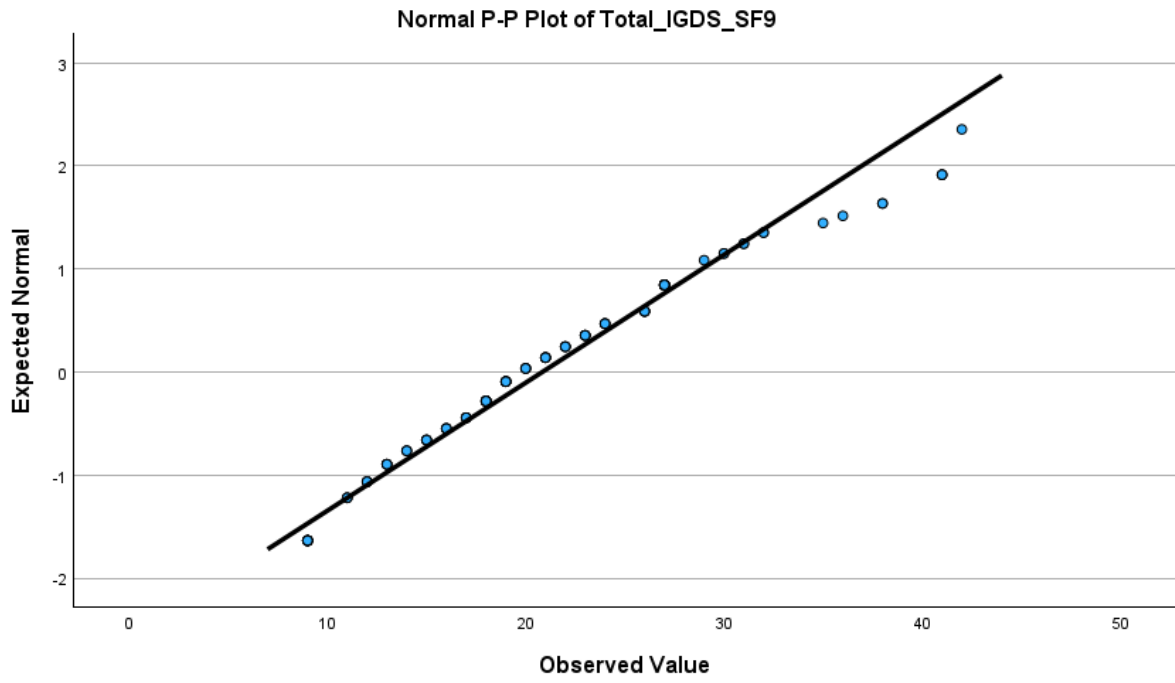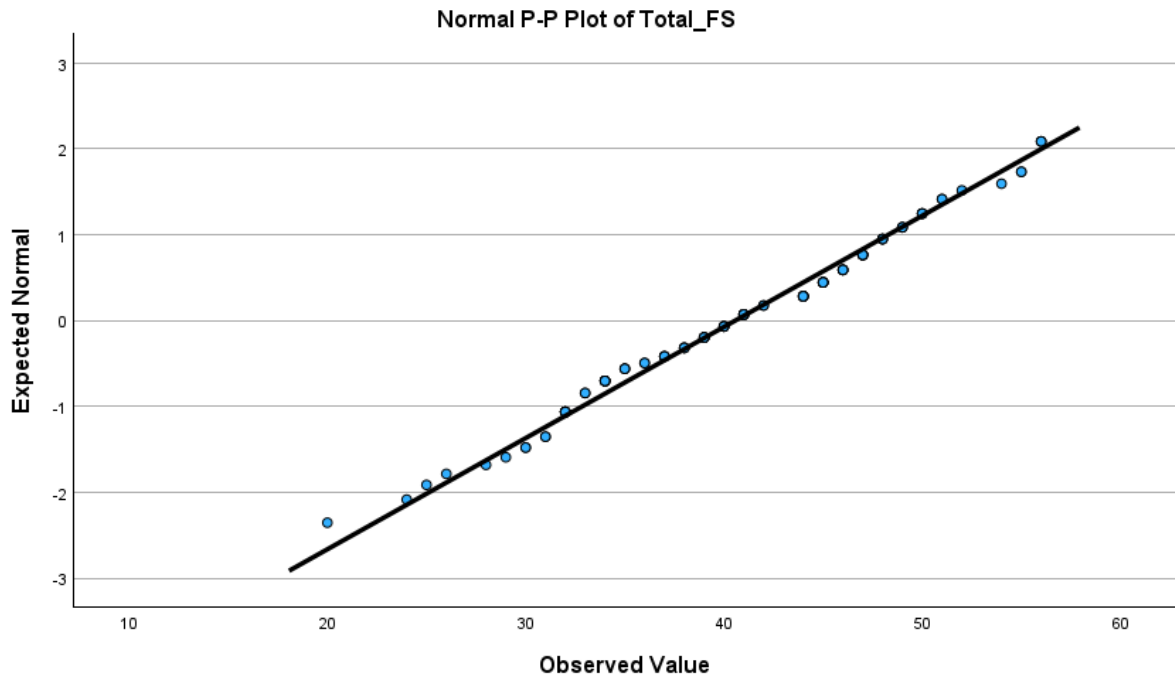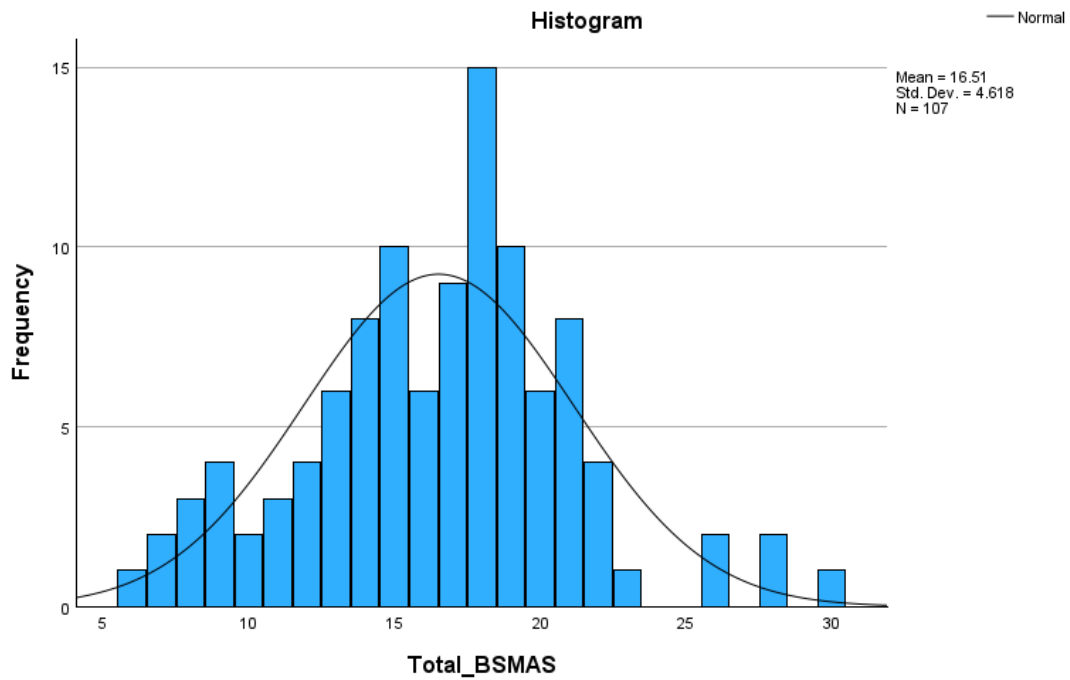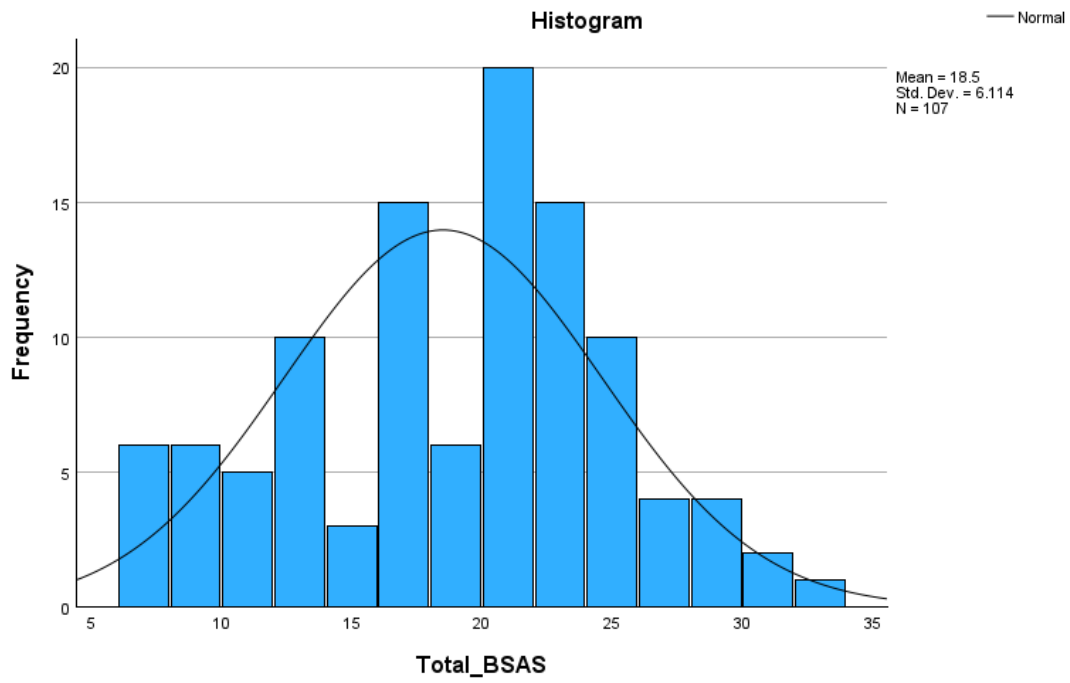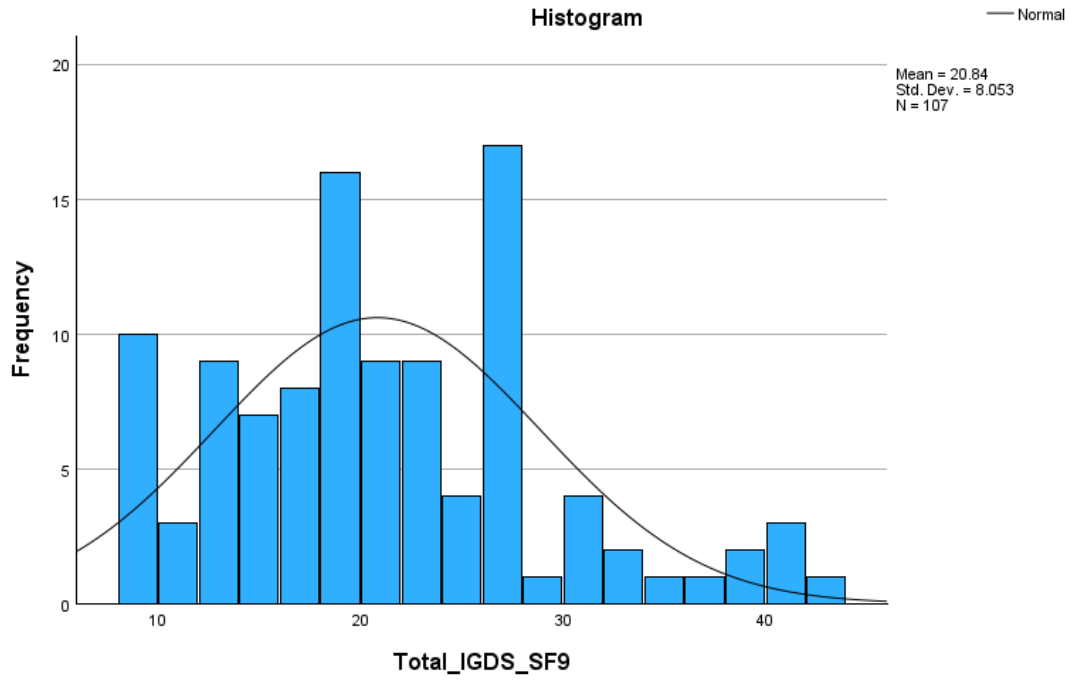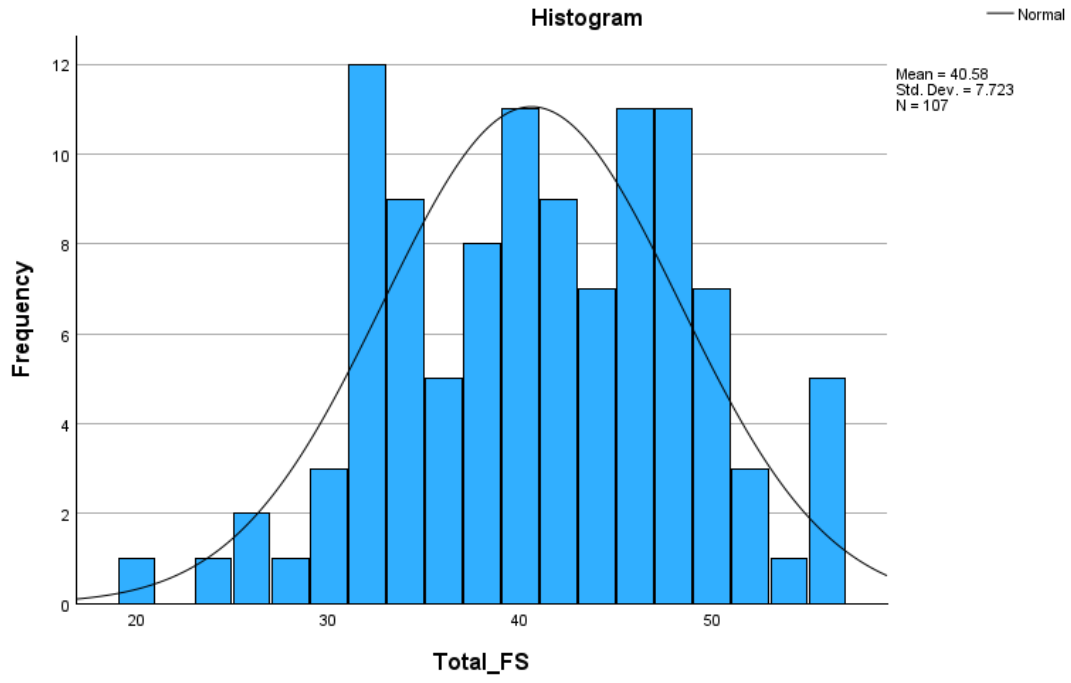
Appendix G

Multiple Linear Regression (MLR) Assumptions

Durbin-Watson

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.332[a]	.110	.084	7.391	2.074

a. Predictors: (Constant), Total_BSAS, Total_IGDS_SF9, Total_BSMAS

b. Dependent Variable: Total_FS

Variance Inflation Factor (VIF) Values and Tolerance Values

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1 (Constant)	47.627	3.009		15.826	<.001		
Total_BSMAS	.097	.189	.058	.511	.611	.674	1.483
Total_IGD9_SF	-.305	.107	-.318	-2.853	.005	.694	1.441
Total_BSAS	-.123	.127	-.098	-.970	.334	.853	1.173

a. Dependent Variable: Total_FS

Multivariate Outliers and Influential Cases

Casewise Diagnostics[a]

Case Number	Std. Residual	Total_FS	Predicted Value	Residual
79	-3.063	20	42.64	-22.641

a. Dependent Variable: Total_FS

Case Summaries[a]

	Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
1	1	8.68320	.02226	.08192
2	2	2.68439	.01816	.02532
3	3	12.73014	.00383	.12010
4	4	1.05334	.00366	.00994
5	5	5.26114	.05101	.04963
6	6	9.46736	.00004	.08931
7	7	2.21487	.02486	.02089
8	8	1.56244	.00001	.01474
9	9	8.14789	.00468	.07687

10	10	1.83359	.00030	.01730
11	11	.39508	.00001	.00373
12	12	.63812	.00310	.00602
13	13	.69894	.00225	.00659
14	14	1.76626	.00223	.01666
15	15	1.62448	.01053	.01533
16	16	3.16665	.00225	.02987
17	17	.06156	.00295	.00058
18	18	5.41448	.03302	.05108
19	19	1.59746	.00578	.01507
20	20	2.70214	.00380	.02549
21	21	.63812	.00310	.00602
22	22	.63812	.00310	.00602
23	23	7.54032	.01057	.07114
24	24	5.36849	.02068	.05065
25	25	6.54557	.00873	.06175
26	26	4.62759	.01245	.04366
27	27	.91210	.00340	.00860
28	28	2.14623	.00508	.02025
29	29	4.03857	.03919	.03810
30	30	.41743	.00009	.00394
31	31	1.86850	.00001	.01763
32	32	1.54499	.00730	.01458
33	33	.70734	.00422	.00667
34	34	1.08680	.00000	.01025
35	35	.33342	.00021	.00315
36	36	13.75522	.03019	.12977
37	37	2.57387	.02082	.02428
38	38	.37720	.00270	.00356
39	39	.12851	.00115	.00121
40	40	3.75253	.00722	.03540
41	41	.63812	.00016	.00602
42	42	5.26043	.00827	.04963
43	43	.95799	.01793	.00904
44	44	3.76237	.00051	.03549
45	45	1.30358	.00057	.01230
46	46	.75741	.00760	.00715
47	47	1.94204	.00205	.01832
48	48	1.62266	.00972	.01531
49	49	.76454	.00000	.00721
50	50	1.30617	.00005	.01232
51	51	2.41412	.03236	.02277

52	52	2.63060	.00008	.02482
53	53	6.07440	.04077	.05731
54	54	.73975	.00611	.00698
55	55	2.42529	.00429	.02288
56	56	3.83420	.02693	.03617
57	57	2.51582	.01647	.02373
58	58	2.54278	.00421	.02399
59	59	3.30290	.00009	.03116
60	60	.63812	.00310	.00602
61	61	1.71733	.00041	.01620
62	62	.92819	.00868	.00876
63	63	.70452	.00001	.00665
64	64	.24781	.00304	.00234
65	65	.80687	.00041	.00761
66	66	.75855	.00354	.00716
67	67	6.52174	.02837	.06153
68	68	1.82651	.02099	.01723
69	69	4.42632	.02382	.04176
70	70	4.65400	.00004	.04391
71	71	3.41097	.00173	.03218
72	72	3.57984	.00121	.03377
73	73	.42761	.00458	.00403
74	74	.30629	.00185	.00289
75	75	7.95219	.00018	.07502
76	76	2.19433	.00162	.02070
77	77	2.76167	.00314	.02605
78	78	6.81232	.04052	.06427
79	79	3.62704	.11173	.03422
80	80	5.89196	.00009	.05558
81	81	.93436	.00112	.00881
82	82	.75138	.01012	.00709
83	83	4.09612	.00361	.03864
84	84	4.88266	.02380	.04606
85	85	1.21299	.02101	.01144
86	86	.18884	.00036	.00178
87	87	.60891	.00161	.00574
88	88	.60986	.00150	.00575
89	89	2.93286	.00331	.02767
90	90	3.67575	.00405	.03468
91	91	2.76361	.00096	.02607
92	92	10.03897	.00834	.09471
93	93	.91210	.00456	.00860

94	94	1.53455	.02128	.01448
95	95	1.12469	.00079	.01061
96	96	6.96414	.01464	.06570
97	97	4.47228	.00004	.04219
98	98	.78651	.00156	.00742
99	99	2.95386	.01466	.02787
100	100	4.91429	.00076	.04636
101	101	4.78304	.01088	.04512
102	102	2.87260	.02274	.02710
103	103	4.60847	.00736	.04348
104	104	.73975	.00640	.00698
105	105	5.19696	.02303	.04903
106	106	4.66756	.00033	.04403
107	107	3.07916	.00368	.02905
Total N		107	107	107

a. Limited to first 150 cases.

Multiple Linear Regression (MLR) Analysis

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	695.919	3	231.973	4.247	.007[b]
Residual	5626.156	103	54.623		
Total	6322.075	106			

a. Dependent Variable: Total_FS
b. Predictors: (Constant), Total_BSAS, Total_IGD9_SF, Total_BSMAS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.332[a]	.110	.084	7.391	2.074

a. Predictors: (Constant), Total_BSAS, Total_IGDS_SF9, Total_BSMAS
b. Dependent Variable: Total_FS

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	47.627	3.009		15.826	<.001
Total_BSMAS	.097	.189	.058	.511	.611
Total_IGD9_SF	-.305	.107	-.318	-2.853	.005
Total_BSAS	-.123	.127	-.098	-.970	.334

a. Dependent Variable: Total_FS

Appendix H

Ethical Clearance Approval

UNIVERSITI TUNKU ABDUL RAHMAN *DU012(A)*

Wholly owned by UTAR Education Foundation *Co. No. 578227-M*

Re: U/SERC/78-181/2024

5 January 2024

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

Dear Dr Pung,

Ethical Approval For Research Project/Protocol

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

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Social Media Addiction, Internet Gaming Disorder, and Online Shopping Addiction As Predictors of Psychological Well-being Among Young Adults in Malaysia	1. Ng Jing Rou 2. Sim Jing Xuan Vadelyn 3. Vivian Goh Zhi Xuan	Dr Grace T'ng Soo Ting	5 January 2024 – 4 January 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.

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

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