



Faculty of Cognitive Sciences and Human Development

**DISSATISFACTION KILLS: THE RELATIONSHIP BETWEEN
INSTAGRAM ADDICTION AND SELF-ESTEEM AMONG
UNIVERSITY UNDERGRADUATES**

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Bachelor in Psychology (Honours)

2025

**DISSATISFACTION KILLS: THE RELATIONSHIP BETWEEN INSTAGRAM
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This project is submitted
in partial fulfilment of the requirements for a
Bachelor in Psychology with Honours

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
(2025)

The project entitled '**Dissatisfaction Kills: The Relationship between Instagram Addiction and Self-Esteem among University Undergraduates**' was prepared by **Nurain Hazirah Binti Othman (78433)** and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor in Psychology with Honours

Received for examination by:



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Date:

24/7/2024

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ACKNOWLEDGEMENT

First and foremost, I would like to extend my heartfelt gratitude to Allah S.W.T. for granting me the strength to overcome the obstacles in my life and the patience to persevere throughout this journey. Without His guidance and support, I would not have been able to navigate the challenges and uncertainties that have come my way. Alhamdulillah for every step taken, every lesson learned, and every blessing received. Next, I would like to express my profound appreciation to my supervisor, Madam Ross Azura Binti Zahit, for her invaluable guidance throughout my final year project. She has consistently demonstrated kindness, understanding, and trustworthiness, providing me with a supportive environment to discuss and overcome the challenges I encountered.

I would like to extend my special appreciation to my family, particularly my parents, Othman bin Seong and Hajjah binti Salihin for their unwavering emotional support. They are the pillars of my strength and the reason I strive to live positively.

Furthermore, I would like to express my sincere appreciation and gratitude to my friends and groupmates who provided invaluable assistance throughout the learning process of conducting my final year project. Their support, collaboration, and encouragement have been essential to my success.

Lastly, I extend my heartfelt thanks to Universiti Malaysia Sarawak (UNIMAS) for granting me the opportunity to undertake this study. This experience has allowed me to discover and hone my abilities. I also wish to acknowledge and appreciate the efforts of all those who have contributed, directly or indirectly, to the preparation and completion of this final year project.

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ABSTRACT

This study aimed to determine the relationship between Instagram addiction and self-esteem among university undergraduates. Instagram addiction is defined as a psychological dependence on Instagram that interferes with important tasks and activities, producing negative consequences. Self-esteem refers to positive or negative attitudes towards oneself, as well as an assessment of one's own thoughts and feelings regarding oneself in general. The study employs a cross-sectional quantitative research method, involving 106 university undergraduates in Malaysia who completed the Instagram Addiction Scale (TIAS-12) and the Rosenberg Self-Esteem Scale (RSES). An independent t-test was conducted to measure the significant difference between genders on Instagram Feed Addiction and Instagram Stories Addiction. The results indicate no significant difference between genders for both Instagram Feed Addiction and Instagram Stories Addiction ($p > 0.05$). Pearson's correlation was used to measure the relationship between the components of Instagram Feed Addiction and Instagram Stories Addiction with self-esteem. The findings reveal significant but weak correlations between salience, mood modification, relapse, withdrawal, and conflict of Instagram Feed Addiction and self-esteem ($p < 0.05$, $r > -1$). However, the relationship between tolerance of Instagram Feed Addiction and self-esteem is not significant and shows a weak correlation ($p > 0.05$, $r > -1$). Similarly, for Instagram Stories Addiction, there are significant but weak correlations between mood modification, relapse, withdrawal, and conflict with self-esteem ($p < 0.05$, $r > -1$). However, salience and tolerance of Instagram Stories Addiction do not show significant correlations with self-esteem ($p > 0.05$, $r > -1$).

Keywords: Instagram Feed Addiction, Instagram Stories Addiction, self-esteem

ABSTRAK

Kajian ini bertujuan untuk menentukan hubungan antara ketagihan Instagram dan harga diri dalam kalangan pelajar universiti. Ketagihan Instagram didefinisikan sebagai kebergantungan psikologi terhadap Instagram yang mengganggu tugas dan aktiviti penting yang kemudiannya menghasilkan kesan negatif. Harga diri merujuk kepada sikap positif atau negatif terhadap diri sendiri, serta penilaian terhadap pemikiran dan perasaan seseorang mengenai diri sendiri secara umum. Kajian ini menggunakan kaedah penyelidikan kuantitatif rentas seksyen, melibatkan 106 pelajar universiti di Malaysia yang melengkapkan Skala Ketagihan Instagram (TIAS-12) dan Skala Harga Diri Rosenberg (RSES). Ujian T bebas dijalankan untuk mengukur perbezaan ketara antara jantina terhadap Ketagihan Feed Instagram dan Ketagihan Cerita Instagram. Keputusan menunjukkan tiada perbezaan ketara antara jantina untuk kedua-dua Ketagihan Feed Instagram dan Ketagihan Cerita Instagram ($p > 0.05$). Korelasi Pearson digunakan untuk mengukur hubungan antara komponen Ketagihan Feed Instagram dan Ketagihan Cerita Instagram dengan harga diri. Penemuan menunjukkan korelasi yang ketara tetapi lemah antara penonjolan, pengubahsuaian mood, kambuh semula, penarikan diri, dan konflik Ketagihan Feed Instagram dengan harga diri ($p < 0.05$, $r > -1$). Walau bagaimanapun, hubungan antara toleransi Ketagihan Feed Instagram dan harga diri tidak ketara dan menunjukkan korelasi yang lemah ($p > 0.05$, $r > -1$). Begitu juga dengan keputusan Ketagihan Cerita Instagram, terdapat korelasi yang ketara tetapi lemah antara pengubahsuaian mood, kambuh semula, penarikan diri, dan konflik dengan harga diri ($p < 0.05$, $r > -1$). Walau bagaimanapun, penonjolan dan toleransi Ketagihan Cerita Instagram tidak menunjukkan korelasi yang ketara dengan harga diri.

Kata kunci: Ketagihan Feed Instagram, Ketagihan Cerita Instagram, harga diri

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter introduces the study on examining the correlation between Instagram addiction and self-esteem among university undergraduates. It includes the study's background and problem statement, and highlights the research objectives, questions, and hypotheses. Additionally, a conceptual framework will be presented to illustrate the association between Instagram addiction and self-esteem.

The widespread use of social media applications has significantly influenced how individuals perceive themselves. Instagram, in particular, is a popular platform among young adults for showcasing their daily routines. However, Instagram usage can become problematic when users are unable to control their self-perceptions and continuously compare their lifestyles with others.

1.1 Background of study

Social media has become an essential part in human's lives and has become popular (Pekpazar et al., 2021) due to its convenience and useful applications on connecting with friends and family, engaging into sexual relationships, interacting with companies and brands, job seeking, and conducting business. (Aichner et al., 2021). According to Sharma et al. (2022), youngsters are familiar with Instagram because it is a free social networking site designed to publish and share videos and photographs via a mobile app. Kar (2021) stated that approximately 3.6 billion people are estimated to use social networking sites regularly, and this

number is expected to grow as mobile device usage increases and social networks become more popular. Self-expression and social engagement are the two main motivations for using Instagram as it allows the users to utilize the platform to show their real and ideal selves as well as to sustain social relationships (Alhabash & Ma, 2017). However, several studies show that Instagram is more prone to use as a self-promotion platform rather than social relationships (Sheldon & Bryant, 2016; Wong, et al., 2019).

The constant updates by individuals and the number of followers, likes and compliments in Instagram are able to arouse the sense of dissatisfaction and envy as they may question their social acceptance. Sharma et al. (2022) explained that social acceptance is significantly influenced by the number of followers, likes, and comments. Users tend to rely on these metrics to avoid social rejection, seeking approval through social comparison. This behavior can lead to mental health issues such as anxiety and depression.

Social comparison can significantly impact an individual's self-esteem. Recent findings by Moningka and Eminiari (2020) indicate a negative association between social media comparisons and self-esteem. In other words, an individual's likelihood of having low self-esteem increases with the frequency with which they compare their behavior on social media.

Other than that, Instagram highlights the personal appearance of individuals. The recent trend among the youth society is they tend to use filters and other augmented reality (AR) tools to cover their “imperfections”. They are commonly applied onto the users’ faces to beautify facial traits, changing them into fictitious creatures, attaching ludicrous items and adding captivating attires (Javornik et al., 2022). However, the usage of AR filters has its downsides as well. One of them is "Selfie dysmorphia", a phenomenon where users who edit their selfies

digitally concerns about their self-esteem and think their appearance is distorted (Rajanala et al., 2018).

1.2 Problem Statement

The excessive use of Instagram has been significantly increasing among the young adults especially the university undergraduates. It is a concerning phenomenon as Instagram contents influence their perceptions and beliefs, thus affecting their self-esteem. Self-esteem is important to university undergraduates as they need to show their capabilities and expertise to the public and prepare to face obstacles in the future. In other means, the self-esteem can be monitored through the individuals' own behaviors. In a study examining the impact of low self-esteem on academic achievement among medical students in Saudi Arabia (Alghamdi et al., 2023), researchers found that lower levels of self-esteem were associated with behaviors such as self-harm, suicidal tendencies, procrastination, avoidance of specific people or situations, incomplete tasks, rushed work, a lackadaisical attitude, excessive people-pleasing, irrational anger towards mistakes, difficulty asserting boundaries, self-deprecating speech, and participation in self-improvement programs.

When the university undergraduates are started to get addicted with Instagram, they will start to become anxious and unable to control their distorted thinking, affecting their self-esteem. They are constantly complaining and never feel satisfied with themselves because they persist in comparing their lives with the others. In a study on university students during the COVID-19 pandemic conducted by Rogowska et al. (2022), it was found that 17.19% of participants reported frequent Instagram addiction, while loneliness and life dissatisfaction were reported at rates of 75% and 40.15%, respectively. The study also revealed a bidirectional

relationship between Instagram addiction and life satisfaction, mediated by loneliness, which was significant among women but not among men.

According to the most recent data from Oosga, which was released in January 2023, there are currently 15.05 million Instagram users in Malaysia, growing at a rate of 1.07%. There are roughly 45.31% more male users than female users which is approximately 54.69%. When it comes to young people in particular, Instagram is the most widely used social media network, surpassing even Facebook, Twitter, and Snapchat (Kircaburun & Griffiths, 2018). Due to its popularity, certain Instagram users are more likely to get addicted or engage in problematic use (Kuss & Griffiths, 2017). University students specifically are particularly vulnerable to the development of problematic Instagram use and Instagram addiction due to their significant free time, flexible schedules besides excessive and unrestricted internet usage (Turel & Qahri-Saremi, 2016).

Due to that matter, this study aims to understand the relationship of the six components of Instagram Feed Addiction and Instagram Stories Addiction (salience, tolerance, mood modification, relapse, withdrawal and conflict) and self-esteem among university undergraduates and determine which of these components affect the university undergraduates the most. Furthermore, the aim of this study is to address gaps in the existing literature. The result from this study will allow the researcher to connect the previous studies with the recent findings thus, it is possible to create well-informed interventions and initiatives to encourage healthy online behaviors and foster good self-esteem among Instagram users.

1.3. Research Objectives

1.3.1. General Objectives

- To determine the relationship between Instagram Addiction and Self-Esteem among university undergraduates.

1.3.2 Specific Objectives

- 1) a) To investigate the significant difference between gender on Instagram Feed Addiction.

b) To investigate the significant difference between gender on Instagram Stories Addiction.
- 2) a) To examine the relationship between salience of Instagram Feed Addiction and self-esteem among university undergraduates.

b) To examine the relationship between salience of Instagram Stories Addiction and self-esteem among university undergraduates.
- 3) a) To determine the relationship between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.

b) To determine the relationship between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.
- 4) a) To study the relationship between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.

b) To study the relationship between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.

- 5) a) To investigate the relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.
b) To investigate the relationship between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.
- 6) a) To determine the relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.
b) To determine the relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.
- 7) a) To find out the relationship between the conflict of Instagram Feed Addiction and self-esteem among university undergraduates.
b) To find out the relationship between the conflict of Instagram Stories Addiction and self-esteem among university undergraduates.

1.4 Research Questions

- 1) a) Is there any significant difference between gender on Instagram Feed Addiction?
b) Is there any significant difference between gender on Instagram Stories Addiction?
- 2) a) Is there any significant relationship between salience of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between salience of Instagram Stories Addiction and self-esteem among university undergraduates?

- 3) a) Is there any significant relationship between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates?
- 4) a) Is there any significant relationship between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates?
- 5) a) Is there any significant relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between relapse of Instagram Stories Addiction and self-esteem among university undergraduates?
- 6) a) Is there any significant relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates?
- 7) a) Is there any significant relationship between conflict of Instagram Feed Addiction and self-esteem among university undergraduates?
b) Is there any significant relationship between conflict of Instagram Stories Addiction and self-esteem among university undergraduates?

1.5 Research Hypotheses

- 1) a) There is a significant difference between gender on Instagram Feed Addiction.
b) There is a significant difference between gender on Instagram Stories Addiction.
- 2) a) There is a correlation between salience of Instagram Feed Addiction and self-esteem among university undergraduates.
b) There is a correlation between salience of Instagram Stories Addiction and self-esteem among university undergraduates.
- 3) a) There is a correlation between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.
b) There is a correlation between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.
- 4) a) There is a correlation between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.
b) There is a correlation between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.
- 5) a) There is a correlation between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.
b) There is a correlation between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.
- 6) a) There is a correlation between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.
b) There is a correlation between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.

- 7) a) There is a correlation between conflict of Instagram Feed Addiction and self-esteem among university undergraduates.
- b) There is a correlation between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.

1.6 Conceptual Framework

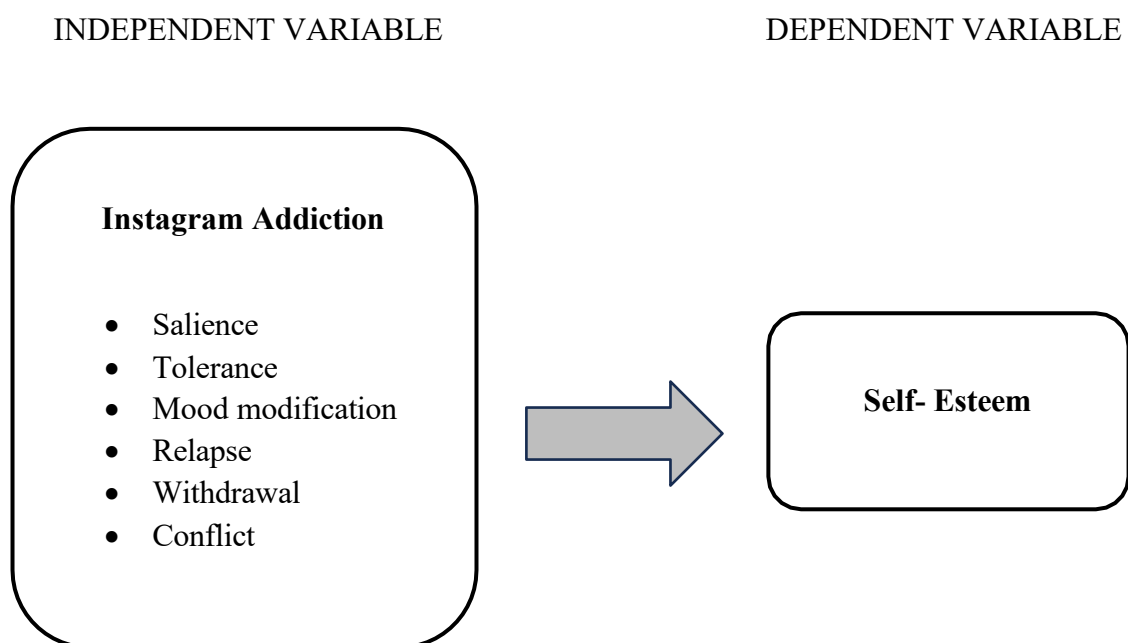


Figure 1.0 Conceptual Framework on relationship between Instagram addiction and Self-esteem

Based on this study, there are 2 features of Instagram which include in representing the excessive usage of Instagram which are Instagram feed and Instagram stories.

1.7 Significance of study

The results from this study can help educational institutions understand the need for instructional interventions or awareness campaigns that address the possible drawbacks of excessive Instagram use. This could involve encouraging Instagram behaviors that are beneficial to one's health, digital literacy, and techniques for promoting self-worth. Besides that, the possible contribution of this study could influence discussions on responsible Instagram use and the need for guidelines or regulations. Moreover, the study highlights concern for undergraduates regarding the potential adverse impact of Instagram usage on self-esteem. Educators, parents, mental health specialists, and community leaders can use this information to devise strategies aimed at reducing potential risks and fostering healthier social media habits among undergraduates.

1.8 Definitions of terms

1.8.1 Instagram addiction

Conceptual definition:

Instagram is a social media photo-sharing programme that allows users to take, edit, and share photos (Chen, 2021). Instagram addiction refers to psychological dependence on using social networking sites such as Instagram that obstructs important tasks and activities and produces negative consequences (Serenko & Turel, 2015).

Operational definition:

The degree of Instagram usage to be considered “addiction” can be measured by using The Instagram Addiction Scale by Sholeh & Rusdi (2019). According to the tool developed by

Sholeh & Rusdi (2019), there are two subscales: Instagram Feed Addiction (IFA) and Instagram Stories Addiction (ISA). These subscales assess Instagram users' addictive tendencies specifically related to their use of feed and stories.

1.8.2 Self-esteem

Conceptual definition:

Self-esteem encompasses one's overall feelings and evaluations about oneself, whether positive or negative (Rosenberg, 1965).

Operational definition:

The Rosenberg Self-Esteem Scale gauges individuals' self-esteem using 4-point Likert scales to capture both positive and negative attitudes (Rosenberg, 1965).

1.9 Summary

Overall, this chapter shows the overview of the study and presents its purposes on university undergraduates. The conceptual framework includes the components involved in the relationship between Instagram addiction and self-esteem.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

In this chapter, the findings from previous studies which are related with Instagram addiction and self-esteem are reviewed. The previous literature may assist in discovering the degree of Instagram addiction in public and how self-esteem can be linked with the addiction.

2.1 Instagram addiction

Social media addiction, encompassing the obsessive use of various social media applications, is generally defined as a form of behavioral addiction. Cheng et al. (2022) explained that social media addiction involves excessive engagement with social media platforms, significantly hindering a user's ability to function in crucial areas of life, such as maintaining relationships, performing at work or school, and preserving physical health. Based on the six components of Instagram addiction, which are salience, tolerance, mood modification, relapse, withdrawal and conflict, the individuals who fulfill these six components are considered as “addicted” to that certain behavior, operationally (Kircabun & Griffiths, 2018). According to Griffiths (as cited in Pu & Yanhui, 2023), salience is the frequent preoccupation with or planning to use social media, and tolerance is the escalating need to use it more often. Mood modification refers to using social media to avoid emotional issues, while relapse signifies the failure to cut back on social media use. Withdrawal describes the discomfort experienced when unable to access social media, and conflict highlights the adverse impacts on an individual's life resulting from excessive social media use.

2.2 Self-Esteem

Self-esteem is the positive or negative attitudes towards oneself as well as an assessment of one's own thoughts and feelings regarding oneself (Rosenberg, 2006). Self-esteem, resilience, mental health, and psychological self-care among university students were correlated with factors such as gender, perceived weight status, current illness, and relationships with friends and family (Auttama et al., 2021). According to the recent article (Alghamdi et al., 2023), low self-esteem is the conflict between one's competing elements, such as their ideal and real selves and they have stated that in order to assess one's own self-efficacy, the individual needs to monitor and evaluate their behaviors and abilities in relation to how they perceive themselves and by their significant others.

2.3 Theory involved in this study

2.3.1 Uses and Gratifications theory

The social theory of uses and gratification was established to explain the reasons and the reactions of the people who select particular social media platforms to fulfill their needs (Wibowo, 2022). According to Rubin (as cited in Ferris et al., 2021), there are main assumptions based on uses and gratification theory which are the behaviors of the media consumers in choosing the methods to satisfy their needs, the sociological and psychological characteristics of the individual influences their choices and the competition between the media and other sources on fulfilling the individual's needs, which may have greater influence than the media when considering potential effects or consequences. The usage of media results from personal needs and the desire to meet those needs. Different outcomes may arise depending on these media consumption patterns.

2.3.2 Self-Determination Theory

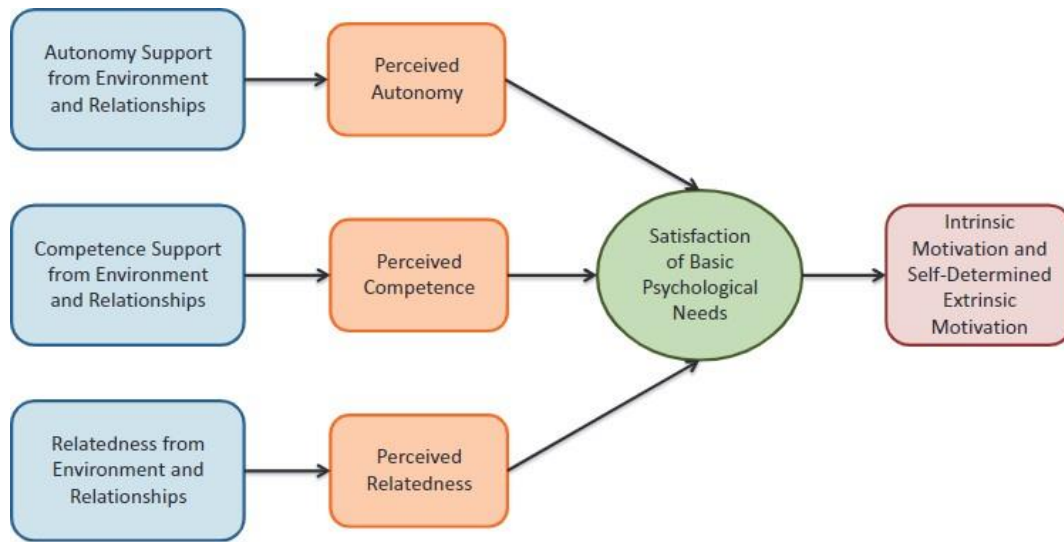


Figure 2.0 The role of need satisfaction in motivation according to self-determination theory (Legault, 2017).

According to self-determination theory, Fernández-Espínola et al. (2020) identify there are 3 fundamental psychological demands which are universal and present in all individuals, referring to autonomy, competence and relatedness. Ryan and Deci (2017) define "autonomy" as the need for individuals to perceive themselves as the originators of their actions and to engage in activities based on their own decisions. "Competence" pertains to the need to effectively manage outcomes and achieve proficiency, while "relatedness" involves the need for interpersonal relationships.

In the Self-Determination Theory's Taxonomy of Motivation, there are 3 types of motivations which are amotivation, extrinsic motivation and intrinsic motivation (Ryan & Deci, 2020). According to Barch and Dowd (2010), amotivation is a reduction in the desire to start or maintain goal-directed behavior. Extrinsic motivation relates with the behaviors done for

discrete, material benefit purposes meanwhile intrinsic motivation refers to pursuits made for its own sake or for its inherent satisfaction (Lee et al, 2015).

2.3.3 Social Comparison Theory

Social comparison theory was proposed by Festinger in 1954. Although the social comparison theory was not clearly defined in his works, it is commonly perceived as a cognitive process which involving reflection on oneself in connection with others (Miller & Richert, 2015). Festinger (1954) proposed the hypothesis that individuals tend to select comparison standards which are similar to themselves in the critical dimension as he explained that choosing for a comparable reference point is important because only comparisons with similar standards produce meaningful diagnostic information meanwhile comparisons on dissimilar standards would lead to ambiguous results. He theorized that individuals have a basic need to maintain stable and accurate perceptions of themselves, therefore they should tend to seek informative feedback regarding their qualities and abilities (Crusius et al., 2022).

2.4 Previous findings

2.4.1 Addiction and brain

An article by Nitin et al. (2023) explains the connection between addiction and the brain. The authors have stated that addiction occurs due to the change in a single pathway in the brain which is the "reward" circuit, whose primary centers of activity are located in the limbic system. They have discovered that motivational behavior is governed by the addiction route. Bozkurt (as cited in Macit et al., 2018) mentions that individuals who do not find sufficient gratification from basic rewards such as water, food, and sexuality may turn their attention to stimuli and

actions that activate the reward system. The most important neurotransmitter responsible for propelling the reward mechanism is dopamine.

Receiving texts, likes, or messages is intrinsically gratifying since social media platforms imitate a "virtual" social experience, evoking feelings of joy and contentment, however these emotions are temporary, and once the initial brief moment subsides, individuals often seek additional sources of satisfaction (Burhan & Moradzadeh, 2020). In other means, throughout the time, the brain will create a relationship between the Instagram usage and pleasure, which is a core element of associative learning. Associative learning is commonly believed to require the physical presence of stimuli in the surroundings for them to be linked (Gostolupce et al., 2022). As the strength of the relationship becomes stronger, the Instagram users have the tendency to experience pleasurable effects associated with positive social interactions.

2.4.2 Instagram addiction and fulfilment of needs

Foroughi et al. (2021) discovered that Instagram addiction positively correlated with the needs for recognition, interpersonal interaction, and entertainment, but there was no significant correlation between Instagram addiction and information needs. This is attributed to Instagram's focus on visual image sharing through its interface and user experience. Instagram usage is able to fulfill the recognition needs through validation. Instagram users often seek for validation as they discover that the responses from the followers and the number of likes can become their motivating factors. The excessive need for validation is one of the reasons the addiction of Instagram occurs. Validation also can occur in social needs due to social connection with friends, colleagues and family members. Through Instagram, the users

can interact with each other and keep updated with their daily routines. However, the constant urge to stay connected or can be known as fear of missing out (FOMO) may contribute to the addictive behaviors. FoMO is a term used to depict a phenomenon observed on social media, involving the perception of missing out and a compulsive behavior to maintain social connections (Gupta & Sharma, 2021). Besides that, Instagram usage can be addictive due to its fulfillment in entertainment needs which may complement with the preferences of the users, causing the users to discover and spend more time on browsing those particular preferences.

Other than that, a study by Chegeni et al. (2021) revealed the reasons for social media addiction which was based on one main category of “weakness in acquiring life skills”, emerging into three themes which were “problems in socialising” which included communicating and overcoming loneliness, “problems in resiliency” which included the experience of devastation in difficult circumstances and being unable to recover and "lack of problem-solving skills," referring to lack of knowledge in analysis, decision-making and planning. The individuals who have “problems in socialising” find that social media platform as a safe space to engage in social interactions because perhaps physical confrontation with people is more intimidating than online interaction. Erwin et al. (as cited in O’Day & Heimberg, 2021) suggest that individuals with social anxiety tend to find the Internet a more comfortable environment for social interaction, influencing their preference for online interactions over face-to-face encounters. Over time, these individuals become comfortable with this type of interaction and depend heavily on Instagram to communicate and overcome their boredom. Other than that, the individuals who have “problems in resiliency” are commonly use Instagram as their escapism. By engaging with the Instagram contents, they will be able to distract themselves from stress, emotional challenges and distorted thinking. Meanwhile, people who

“lack of problem-solving skills” utilize Instagram as their coping mechanism from thinking critically about their problems.

2.4.3 Instagram addiction and gender preferences

According to a study, the males are more prone to display their personal pictures on Instagram, tend to disclose their personal information and prefer to own public accounts, meanwhile the females are more likely to have private accounts on Instagram (Abdul Aziz & Abdul Aziz, 2020).

Additionally, a study among University of Sharjah students found that males exhibited significantly higher social media addiction compared to females. This trend was attributed to males using social media to forge promising connections and find like-minded individuals, alongside cultural norms and traditional roles influencing women in the Middle East. Women in this region often conceal their social media usage and personal information (Alnjadat et al., 2019).

According to Aparicio-Martínez et al. (2020), in females, the frequency of social network use, the duration and the importance of social networking sites (SNS) have positive correlation with the diagnosis of addiction to social networks, however there is a negative correlation between the degree of self-worth and the diagnosis of the addiction. Meanwhile, the likelihood of social network addiction in men is correlated positively with the frequency of social network use, the duration of the connections, the importance of SNS and loneliness, however testosterone levels (2D:4D ratio) correlated negatively with the diagnosis of addiction to social networks. This finding shows that the gender differences play important role in the complex association between social network use, psychological factors and the risk of addiction.

2.4.4 Instagram addiction and self-presentation

Self-presentation encompasses the actions an individual takes to convey specific details and create an impression of their identity to others such as the way of walking, driving manners, choices in clothing, and efforts to conceal personal anxieties from others (Balci, & Yeles Karaman, 2020). Instagram users tend to resort to self-presentation behaviors since Instagram provides them with the chances to edit their contents before posting it on their profiles. According to Pedalino and Camerini (2022), adolescent and young women tend to emphasize appearance and beauty standards in their self-presentation, primarily motivated by the desire for attention from the public towards their posts, especially from their peers.

Mann and Blumberg (2022) suggested that sharing opinions, beliefs, interests, and uploading photos across various identity-based domains allows individuals to convey information about their envisioned possible selves. In fact, according to Kircaburun and Griffiths (2018), among the Big Five personality traits, agreeableness and conscientiousness, along with self-liking, have negative correlations with Instagram addiction.

2.4.5 The effects of Instagram addiction

According to Sanz-Blas et al. (2019), the excessive use of Instagram directly contributes to addiction by diminishing users' control over their time spent on the platform, leading to increased emotional fatigue and stress. Instagram addiction is also related to fear of missing out (FOMO). FOMO is characterized as a problematic form of social media attachment associated with a range of negative life experiences and emotions, such as sleep deprivation, reduced life effectiveness, emotional distress, adverse physical health effects, anxiety, and impaired emotional regulation. Moreover, it can lead individuals to prioritize personal

relationships as a way to counteract feelings of exclusion (Altuwairiqi et al., 2019). Research by Putri et al. (2023) indicates a positive correlation between the intensity of FOMO and the severity of Instagram addiction.

2.4.6 The time usage on social media

It is also discovered that the usage of time on different types of social media is different according to genders. According to a study of social media addiction by Victor Ugochukwu et al. (2021), males showed a significant frequency of Facebook usage ranging from 4 to 10 hours (66%), Twitter was used for 4 to 10 hours (56%) and Instagram was being utilized for 1 to 4 hours (54%). On the other hand, females showed a high level of Facebook usage between 4 to 10 hours (67%), Twitter was used for 4 to 10 hours (60%) and Instagram was being utilized for the same duration (56%).

According to Aydin et al. (2021), they discover a significant relationship between the age of the participants and social media addiction scale (SMAS) and its sub-scales, showing that the married individuals have less time to spend on social media than single individuals due to the increase of responsibilities to their family. Besides that, the findings also illustrate that with an increasing number of children, there is a decline in social media addiction due to the heightened responsibilities placed on the parent for the childcare, leading to decreased in the time allocated to social media (Aydin et al., 2021). As a consequence, this limits the potential negative impact of social media on the individual's life.

2.5 The improvement in the present study

The present study applies to the specific participants which are often vulnerable to the usage of social media, referring to undergraduates. This study will help how excessive use of Instagram can affect the self-esteem among undergraduates. Undergraduates are mostly among young adults. Young adults are often competitive, ambitious and have high self-expression and they often display these characteristics through social media platforms. Besides that, this study can determine how the presentation of contents in Instagram gradually destructs the beliefs and thinking patterns of undergraduate students based on the components of The Instagram Addiction Scale (salience, tolerance, mood modification, relapse, withdrawal and conflict).

2.6 Summary

This chapter discusses the review of the literature which is related to Instagram addiction and self-esteem. The theories applied in this study display the cores which the researcher is interested in. The findings from earlier studies provide crucial support to the researcher in affirming research questions, objectives, and hypotheses.

CHAPTER 3

METHODOLOGY

3.0 Introduction

There are 5 sections that will be discussed in this chapter, which are the research design along with the population, sample and sampling procedure of this study. Besides that, the instruments used will be discussed. The data collection and analysis procedure will also be explained.

3.1 Research design

This study utilizes a cross-sectional research approach. Cross-sectional study is an observational research project that examine demographic data collected at one particular period of time (Xiaofeng & Zhenshun, 2020). Every research subject is only observed once, and the research variables are measured at that time besides there will be no follow-up measurements after the initial observation (Zuleikha & Legiran, 2022).

Quantitative research is a preferable method to conduct this study because quantitative research examines the causes and effects, testing hypotheses, and making predictions besides focusing on larger population and random selection on participants (Apuke, 2017). Quantitative research aims to analyze numerical data to detect patterns and correlations, validating measurements to answer questions related to individuals, variables, locations, times, quantities, and method (Polit & Beck, 2018; Watson, 2015). The quantitative analysis will be able to show a meaningful information to the readers and impactful contribution to the society. Since the collected random data begin to display more specific significance to the study and the process

itself may require a great deal of discussion, the findings should be elaborated comprehensively to determine the extent to which the evidence answers the research question(s) (Kotronoulas et al., 2023).

3.2 Population, sample and sampling techniques

3.2.1 Population

According to Shukla (2020), a population comprises all units that exhibit the specific traits being studied, to which research findings can be broadly applied. The target population for this study consists of university undergraduates, with participants aged 19 years and older. According to Ministry of Higher Education (2022), the total number of enrolments in public university is 377,103 students.

3.2.2 Sample

Sample is defined as a selected number or subgroup of participants chosen from the intended population (Martínez-Mesa, 2016). According to Andrade (2020), conclusions derived from samples are intended to be applied to the entire population and occasionally to future populations as well. By consulting Krejcie and Morgan's (1970) table for determining sample sizes, the researcher can establish the appropriate sample size for this study.

Table 3.0 Table for Determining Sample Size of a Known Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Based on Krejcie and Morgan (1970), the researcher needs 384 participants from this population to be the sample of this study. By referring to this Krejcie and Morgan table (1970), it functions as a guideline for the researcher and allows the researcher to choose the desired levels of precision.

3.2.3 Sampling techniques

The sampling technique employed in this research is a survey. As defined by Lau (2017), a survey involves collecting and analyzing the personal views of a group of participants to assess specific characteristics of the broader population they represent. Besides that, the

convenient sampling is preferred. Convenient sampling refers to the process of collecting data from a research population that is readily accessible to the researcher (Rahi, 2017). Convenience sampling is suitable in this study because the researcher is able to employ less work than with other non-random sampling techniques when selecting participants besides it demands exceptionally inexpensive participant selection on the part of the researcher and invests less time since the sample taken from the intended population is easily obtainable (Golzar et al., 2022).

3.3 Instruments

The questionnaire is categorized into 3 sections in which Section A refers to the demographic information questionnaire, Section B refers to the Instagram addiction questionnaire, and Section C refers to the self-esteem questionnaire. Section B questionnaire is divided into 2 parts; Instagram Feed Addiction (IFA) and Instagram Stories Addiction (ISA).

3.3.1 Section A: Demographic Information

This section requires the participants to respond about their demographic information such as gender, age, race, faculty, year of study, and other necessary information.

3.3.2 Section B: The Instagram Addiction Scale (TIAS) (Sholeh and Rusdi, 2019)

. Instagram usage can be considered an addiction when the scores which are obtained from The Instagram Addiction Scale, which includes The Instagram Feed Addiction and The Instagram Stories Addiction both have higher scores. The questionnaire is based on the measurement of Instagram Addiction; The Instagram Addiction Scale (TIAS) by Sholeh and Rusdi (2019). Short item, TIAS-12 is applied in the questionnaire. Griffiths (2005) introduced the idea of addiction, which is referred to by the Instagram Addiction Scale (TIAS). The total

items in this questionnaire are 24 items; 12 items are related with IFA and 12 items are related with ISA. The items are based on 6 components which are salience, tolerance, mood modification, relapse, withdrawal, and conflict.

Table 3.1 Components and the items related in The Instagram Addiction Scale (TIAS)

Instagram Feed Addiction (IFA)	Components	Instagram Stories Addiction (ISA)
1, 2	Salience	13, 14
3, 4	Tolerance	15, 16
5, 6	Mood Modification	17, 18
7, 8	Relapse	19, 20
9, 10	Withdrawal	21, 22
11, 12	Conflict	23, 24

The items in this questionnaire are assessed using a 5-point Likert scale, as outlined below:

Table 3.2 Likert scales for Instagram Addiction questionnaire

1	2	3	4	5
Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

The levels of addiction using the subscale IFA-12 can be determined by using the range scores between 12 to 60. These range scores are applied on the levels of addiction for ISA-12 as well.

3.3.3 Section C: Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The questionnaire is based on the Rosenberg Self-Esteem Scale (Rosenberg, 1965). The degree of the items in this questionnaire are measured using 5-point Likert scale is as follows:

Table 3.3 Likert scales for Self-Esteem questionnaire

1	2	3	4
Strongly disagree	Disagree	Agree	Strongly agree

3.4 Validity and Reliability

Both validity and reliability of The Instagram Addiction Scale (2019) and Rosenberg Self Esteem Scale (1965) have convincing values. The validity and reliability of these two scales can be shown by referring to the value of Cronbach's alpha. The Instagram Addiction Scale is valid and reliable as Instagram Feed Addiction and Instagram Stories Addiction show 0.89 and 0.91 respectively. Cronbach's alpha for Rosenberg Self Esteem displays the value of 0.88 (Greenberger et al., 2003). This range is also considered valid and reliable.

3.5 Data collection procedure

For this study, the questionnaire will be distributed online; which is through WhatsApp and Telegram. The questionnaire will be sent to WhatsApp and Telegram community groups of faculties and residential colleges. Although this method appears to be a risky method because

the university undergraduates may feel discomfort with the frequency of emergence of the questionnaire in the community group due to mixed topic information, the variation of demographic information about the university undergraduates who will participate in this study can be achieved. The language used in this questionnaire is English. The participants are allowed to address any inquiries related with the questionnaire to the researcher through her contact number or email address.

3.5.1 Ethics of study

It is important to inform the university undergraduates of their willingness to join this research to ensure the outcomes of this study to be more accurate. The university undergraduates who are interested in this study need to fill the informed consent in the Google Form questionnaire and answer the 3 sections: demographic information, Instagram addiction and self-esteem. Throughout the process of collecting the data, the researcher needs to protect the confidentiality of the participants to build their trust as their involvement influences the contribution to the society. Besides that, the researcher needs to understand the conditions of the participants and allow the participants to withdraw from the study if they experience discomfort or health issues. Ethics application has been submitted for approval.

3.6 Data Analysis procedure

Statistical Package for Social Sciences (SPSS) version 27 is the software application used to measure and analyze the data collected from the participants.

3.6.1 Descriptive Analysis

In Section A, the demographic information will be tested by using descriptive analysis to summarize the data collection. Descriptive statistics provide an overview about the sample

being studied without drawing any assumptions derived from probability theory besides assisting in summarizing data in the form of visual summaries such as box plots and histograms or in the form of basic quantitative measures such as means or percentages (Kaliyadan & Kulkarni, 2019). Before performing inferential statistical comparisons, it is crucial in research to first calculate descriptive statistics (Kaur et al., 2018).

3.6.2 Inferential Data Analysis

The Independent T test, also known as the unpaired t test, is an inferential statistical test used to ascertain whether there is a significant difference between the means of two unrelated (independent) groups (Mishra et al., 2019). This statistical test will be used to analyze the significance difference between gender on Instagram addiction (Instagram Feed Addiction and Instagram Stories Addiction). The Independent T-test will determine whether male or female participants are more prone to Instagram addiction.

Pearson correlation measures the degree of linear relationship between two random variables (Sedgwick, 2012). In this study, it is used to assess the strength of the relationships between the six components of Instagram addiction (salience, tolerance, mood modification, relapse, withdrawal, and conflict) and self-esteem.

Table 3.4 Inferential Data Analysis used based on objectives and hypothesis of the study

Objectives	Hypothesis	Inferential Data Analysis
1. a) To investigate the significant difference between gender on Instagram Feed Addiction.	1. a) There is a significant difference between gender on Instagram Feed Addiction. b) There is a significant difference between	Independent T-Test

b) To investigate the significant difference between gender on Instagram Stories Addiction.	gender on Instagram Stories Addiction.	
2. a) To examine the relationship between salience of Instagram Feed Addiction and self-esteem among university undergraduates. b) To examine the relationship between salience of Instagram Stories Addiction and self-esteem among university undergraduates.	2. a) There is a correlation between salience of Instagram Feed Addiction and self-esteem among university undergraduates. b) There is a correlation between salience of Instagram Stories Addiction and self-esteem among university undergraduates.	Pearson's correlation
3. a) To determine the relationship between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates. b) To determine the relationship between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.	3. a) There is a correlation between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates. b) There is a correlation between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.	Pearson's correlation
4. a) To study the relationship between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.	4. a) There is a correlation between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates. b) There is a correlation between mood	Pearson's correlation

b) To study the relationship between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.	modification of Instagram Stories Addiction and self-esteem among university undergraduates.	
5. a) To investigate the relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates. b) To investigate the relationship between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.	5. a) There is a correlation between relapse of Instagram Feed Addiction and self-esteem among university undergraduates. b) There is a correlation between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.	Pearson's correlation
6. a) To determine the relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates. b) To determine the relationship between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates	6. a) There is a correlation between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates. b) There is a correlation between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.	Pearson's correlation
7. a) To find out the relationship between the conflict of Instagram Feed Addiction and self-esteem among	7. a) There is a correlation between conflict of Instagram Feed Addiction and self-esteem among university undergraduates.	Pearson's correlation

university undergraduates. b) To find out the relationship between the conflict of Instagram Stories Addiction and self-esteem among university undergraduates.	b) There is a correlation between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.	
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3.7 Summary

This chapter discusses the structures of the type of this study which is quantitative research by using a questionnaire. The validity and reliability of the instruments have been discussed. The data collection, the ethics in study and the data analysis procedure have been explained.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents the findings from the quantitative analysis examining the relationship between Instagram addiction and self-esteem among university undergraduates. The study employs a quantitative approach to investigate the impact of Instagram Feed addiction and Instagram Stories addiction on self-esteem, focusing on six key components: salience, tolerance, mood modification, relapse, withdrawal, and conflict.

The statistical analysis included an independent sample T-test to determine the significant differences between genders in terms of Instagram Feed addiction and Instagram Stories addiction. This analysis helped identify whether male and female university undergraduates exhibited different levels of Instagram addiction. Additionally, Pearson's correlation was employed to explore the relationship between the components of Instagram addiction and self-esteem, providing insights into whether these relationships were positive, negative, or non-existent.

In summary, this chapter presents the quantitative findings, highlighting the significant gender differences in Instagram addiction based on the usage of Instagram Feed and Stories. It also delves into the influence of salience, tolerance, mood modification, relapse, withdrawal, and conflict on self-esteem.

4.1 Demographic Data

4.1.1 Demographic Background of Respondents

Descriptive statistics were applied to analyze the data collected from the participants, using frequency and percent analysis to display the demographic characteristics. The demographic section of the questionnaire emphasized participants' age, gender, race, university, year of study, Cumulative Grade Point Average (CGPA), and socioeconomic status (SES). Table 4.1.2 below illustrates the frequency and percentage of the demographic information gathered.

Table 4.0 *Table Distribution of Respondents by Demographic Characteristics*

Demographic Information		Respondents (<i>n</i> =106)	
		Frequency	Percent
Age	19-22 years old	77	72.6
	23-26 years old	28	26.4
	27-30 years old	1	0.9
Gender	Male	19	17.9
	Female	87	82.1
Race	Malay	34	32.1
	Chinese	20	18.9
	Indian	4	3.8
	Bumiputera Sarawak	36	34.0
	Bumiputera Sabah	11	10.4
	Bugis	1	0.9
Year of study	Year 1	13	12.3
	Year 2	10	9.4
	Year 3	80	75.5
	Year 4	3	2.8
University	USM – Universiti Sains Malaysia	3	2.8
	UPM – Universiti Putra Malaysia	1	0.9
	UTM – Universiti Teknologi Malaysia	1	0.9
	UiTM – Universiti Teknologi MARA	11	10.4

CGPA	UiAM – Universiti Islam Antarabangsa Malaysia	1	0.9
	UMS – Universiti Malaysia Sabah	1	0.9
	UNIMAS – Universiti Malaysia Sarawak	74	69.8
	UUM – Universiti Utara Malaysia	1	0.9
	UniSZA – Universiti Sultan Zainal Abidin	1	0.9
	Others	12	11.3
	2.49 and below	1	0.9
	2.50-2.99	13	12.3
	3.00-3.49	25	23.6
	3.50-4.00	67	63.2
Socioeconomic Status	B40	54	50.9
	M40	46	43.4
	T20	6	5.7
Total		106	100

4.2 Inferential Data (Main Findings)

4.2.1.a To investigate the significant difference between gender on Instagram Feed Addiction.

H1 a): There is a significant difference between genders on Instagram Feed Addiction.

Table 4.1 Group Statistics

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total_IFA	Male	19	31.5263	8.47459	1.94420
	Female	87	31.3103	8.84401	.94818

Table 4.2 Independent T-test on Instagram Feed Addiction based on gender

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mea n Diffe rence	Std. Error Diffe rence	95% Confidence Interval of the Difference	
									Low er	Upp er
Total_IFA	Equal variances assumed	.000	.994	.097	104	.923	.216	2.22	-4.2	4.63
	Equal variances not assumed			.100	27.3	.921	.216	2.16	-4.2	4.65

According to Table 4.1, the group statistics reveal that the male participants ($M=31.5263$, $SD=8.47459$, $n=19$) score higher for the Instagram Feed Addiction than the female participants ($M=31.3103$, $SD=8.84401$, $n=87$). Table 4.2 has shown the application of Independent T-test to determine the significance difference on Instagram Feed Addiction by gender. It is found that the p-value is higher than 0.05, $t(104)=0.097$, $p=0.923$ and hence, we reject the alternative hypothesis. **Thus, we conclude that there is no significant difference between gender on Instagram Feed addiction.**

4.2.1.b To investigate the significant difference between gender on Instagram Stories Addiction.

H1 b): There is a significant difference between gender on Instagram Stories Addiction

Table 4.3 Group Statistics

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total_ISA	Male	19	30.2632	8.45144	1.93889
	Female	87	30.7471	8.72342	.93525

Table 4.4 Independent T test on Instagram Stories Addiction based on gender

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mea n Diffe rence	Std. Error Diffe rence	95% Confidence Interval of the Difference	
									Low er	Upp er
Total_ISA	Equal variances assumed	.032	.858	-.22	104	.826	-.48	2.20	-4.8	3.87
	Equal variances not assumed			-.22	27.0	.824	-.48	2.15	-4.9	3.93

Meanwhile, Table 4.3 shows that the female participants ($M=30.7471$, $SD=8.72342$, $n=87$) score higher on Instagram Stories Addiction than male participants ($M=30.2632$, $SD=8.45144$, $n=19$). The Independent T-test which has shown in Table 4.4 reveals that the p-value is higher than 0.05, $t(104) = -0.220$, $p = 0.826$. Hence, the alternative hypothesis is rejected. Thus, we conclude that **there is no significant difference between gender on Instagram Stories Addiction.**

4.2.2.a To examine the relationship between salience of Instagram Feed Addiction and self-esteem among university undergraduates.

H2 a): There is a correlation between salience of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.5 Correlations between salience of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Salience	Total_RSES
IFA_Salience	Pearson Correlation	1	-.295**
	Sig. (2-tailed)		.002
	N	106	106
Total_RSES	Pearson Correlation	-.295**	1
	Sig. (2-tailed)	.002	
	N	106	106

**. Correlation is significant at the 0.01 level (2-tailed).

A Pearson's correlation analysis is conducted to examine the relationship between the salience of Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.295$, $p = 0.002$, $N = 106$). The findings, as shown in Table 4.5, indicate a weak negative correlation ($r = -0.295$), with the correlation coefficient falling within the range of 0 to -0.5. The p-value of 0.002 is less than the significance threshold of 0.05, leading us fail to reject the alternative hypothesis. Therefore, we conclude that **there is a significant (weak) relationship between the salience of Instagram Feed Addiction and self-esteem among university undergraduates**. This result suggests that **higher levels of salience in Instagram Feed Addiction are associated with lower self-esteem among university undergraduates**. However, this tendency is not very strong, even though it is statistically significant.

4.2.2.b To examine the relationship between salience of Instagram Stories Addiction and self-esteem among university undergraduates.

H2 b): There is a correlation between salience of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.6 Correlations between salience of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Salience	Total_RSES
ISA_Salience	Pearson Correlation	1	-.184
	Sig. (2-tailed)		.059
	N	106	106
Total_RSES	Pearson Correlation	-.184	1
	Sig. (2-tailed)	.059	
	N	106	106

The data in Table 4.6 reveals that Pearson's correlation between the salience of Instagram Stories Addiction and self-esteem among university undergraduates is ($r = -0.184$, $p = 0.059$, $N = 106$). This indicates a weak negative correlation, as the coefficient falls within the range of 0 to -0.5. However, the p-value is 0.059, which is slightly above the threshold of 0.05. Hence, we reject the alternative hypothesis and conclude that **there is no significant relationship between the salience of Instagram Stories Addiction and self-esteem among university undergraduates.**

4.2.3.a To determine the relationship between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.

H3 a): There is a correlation between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.7 Correlations between tolerance of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Tolerance	Total_RSES
IFA_Tolerance	Pearson Correlation	1	-.114
	Sig. (2-tailed)		.245
	N	106	106
Total_RSES	Pearson Correlation	-.114	1
	Sig. (2-tailed)	.245	
	N	106	106

A Pearson's correlation analysis is conducted to explore the relationship between the tolerance of Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.114$, $p = 0.245$, $N = 106$). As shown in Table 4.7, the results indicate a weak negative correlation ($r = -0.114$), as it falls within the range of 0 to -0.5. However, the p-value of 0.245 is greater than the significance threshold of 0.05, leading us to reject the alternative hypothesis. Therefore, we conclude that **there is no significant relationship between the tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.**

4.2.3.b To determine the relationship between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.

H3 b): There is a correlation between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.8 Correlations between tolerance of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Tolerance	Total_RSES
ISA_Tolerance	Pearson Correlation	1	-.152
	Sig. (2-tailed)		.119
	N	106	106
Total_RSES	Pearson Correlation	-.152	1
	Sig. (2-tailed)	.119	
	N	106	106

The data in Table 4.8 presents the results of a Pearson's correlation analysis examining the relationship between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates ($r = -0.152$, $p = 0.119$, $N = 106$). The analysis reveals a weak negative correlation ($r = -0.152$), as the coefficient falls within the range of 0 to -0.5. However, the p-value of 0.119 is greater than the significance threshold of 0.05. Hence, we reject the alternative hypothesis. Therefore, we conclude that **there is no significant relationship between the tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.**

4.2.4.a To study the relationship between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.

H4 a): There is a correlation between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.9 Correlations between mood modification of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Moodmodification	Total_RSES
IFA_Moodmodification	Pearson Correlation	1	-.229*
	Sig. (2-tailed)		.018
	N	106	106
Total_RSES	Pearson Correlation	-.229*	1
	Sig. (2-tailed)	.018	
	N	106	106

*. Correlation is significant at the 0.05 level (2-tailed).

The analysis utilizes Pearson's correlation to examine the relationship between mood modification due to Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.229$, $p = 0.018$, $N = 106$). As reported in Table 4.9, the findings indicate a weak negative correlation ($r = -0.229$), since the correlation coefficient lies within the range of 0 to -0.5. The p -value of 0.018 is less than the significance threshold of 0.05, leading us fail to reject the alternative hypothesis. Therefore, we conclude that **there is a significant (weak) relationship between mood modification due to Instagram Feed Addiction and self-esteem among university undergraduates**. These results suggest that **undergraduates who experience higher levels of mood modification from Instagram Feed Addiction tend to have lower self-esteem**, although this relationship is weak.

4.2.4.b To study the relationship between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.

H4 b): There is a correlation between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.10 Correlations between mood modification of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Moodmodification	Total_RSES
ISA_Moodmodification	Pearson Correlation	1	-.233*
	Sig. (2-tailed)		.016
	N	106	106
Total_RSES	Pearson Correlation	-.233*	1
	Sig. (2-tailed)	.016	
	N	106	106

*. Correlation is significant at the 0.05 level (2-tailed).

The data presented in Table 4.10 examines the relationship between mood modification due to Instagram Stories Addiction and self-esteem among university undergraduates, as measured by Pearson's correlation coefficient ($r = -0.233$, $p = 0.016$, $N = 106$). This coefficient of -0.233 indicates a weak negative correlation, in which correlation coefficient lies within the range of 0 to -0.5 . The p -value of 0.016 is below the threshold of 0.05 , suggesting that the observed correlation is statistically significant. Therefore, we conclude that **there is a significant (weak) relationship between mood modification from Instagram Stories Addiction and self-esteem among university undergraduates**. The results show that as **mood modification of Instagram Stories Addiction increases, there is a slight tendency for self-esteem to decrease**.

4.2.5.a To investigate the relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.

H5 a): There is a correlation between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.11 Correlations between relapse of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Relapse	Total_RSES
IFA_Relapse	Pearson Correlation	1	-.222*
	Sig. (2-tailed)		.022
	N	106	106
Total_RSES	Pearson Correlation	-.222*	1
	Sig. (2-tailed)	.022	
	N	106	106

*. Correlation is significant at the 0.05 level (2-tailed).

Pearson's correlation is conducted to investigate the relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.222$, $p = 0.022$, $N = 106$). It shows that in Table 4.11 there is a weak negative correlation ($r = -0.222$) as the coefficient falls in the range 0 to -0.5. The p -value of 0.022 is smaller than 0.05, hence we fail to reject alternative hypothesis. Thus, **there is a significant (weak) relationship between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.** This finding also shows that **undergraduates who experience higher levels of relapse related to Instagram Feed Addiction tend to have lower levels of self-esteem**, although the relationship is weak.

4.2.5.b To investigate the relationship between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.

H5 b): There is a correlation between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.12 Correlations between relapse of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Relapse	Total_RSES
ISA_Relapse	Pearson Correlation	1	-.262**
	Sig. (2-tailed)		.007
	N	106	106
Total_RSES	Pearson Correlation	-.262**	1
	Sig. (2-tailed)	.007	
	N	106	106

**. Correlation is significant at the 0.01 level (2-tailed).

Pearson's correlation analysis is conducted to explore the relationship between the relapse of Instagram Stories Addiction and self-esteem among university undergraduates. The results reveal a weak negative correlation ($r = -0.262$, $p = 0.007$, $N = 106$), as shown in Table 4.12. Given that the p-value is less than the 0.05 significance level, we fail to reject the alternative hypothesis and conclude that **there is a statistically significant relationship between the relapse of Instagram Stories Addiction and self-esteem among university undergraduates.** The results show that **the undergraduates who obtain higher levels of relapse related to Instagram Stories Addiction have the tendency to experience lower levels of self-esteem,** although the relationship is weak.

4.2.6.a To determine the relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.

H6 a): There is a correlation between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.13 Correlations between withdrawal of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Withdrawal	Total_RSES
IFA_Withdrawal	Pearson Correlation	1	-.266**
	Sig. (2-tailed)		.006
	N	106	106
Total_RSES	Pearson Correlation	-.266**	1
	Sig. (2-tailed)	.006	
	N	106	106

** . Correlation is significant at the 0.01 level (2-tailed).

Pearson's correlation has been conducted to determine the relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.266$, $p = 0.006$, $N = 106$). The data in Table 4.13 indicates that there is a weak negative correlation ($r = -0.266$) as it falls in the range of 0 to -0.5. The p value is smaller than 0.05 ($p = 0.006$), hence we fail to reject the alternative hypothesis. **Thus, there is a significant relationship between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.** The results show that **as withdrawal of Instagram Feed Addiction increases, there is a slight tendency for self-esteem to decrease.**

4.2.6.b To determine the relationship between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.

H6 b): There is a correlation between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.14 Correlations between withdrawal of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Withdrawal	Total_RSES
ISA_Withdrawal	Pearson Correlation	1	-.243*
	Sig. (2-tailed)		.012
	N	106	106
Total_RSES	Pearson Correlation	-.243*	1
	Sig. (2-tailed)	.012	
	N	106	106

*. Correlation is significant at the 0.05 level (2-tailed).

Meanwhile, according to Table 4.14, Pearson's correlation has been conducted to determine the relationship between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates ($r = -0.243$, $p = 0.012$, $N = 106$). It has been revealed that there is a weak negative correlation ($r = -0.243$) as it falls in the range of 0 to -0.5. Since the p value is less than 0.05 ($p=0.012$), we fail to reject the alternative hypothesis. Thus, **there is a significant relationship between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.** Besides that, the results show that **as withdrawal of Instagram Stories Addiction increases, there is a slight tendency for self-esteem to decrease.**

4.2.7.a To find out the relationship between the conflict of Instagram Feed Addiction and self-esteem among university undergraduates.

H7 a): There is a correlation between conflict of Instagram Feed Addiction and self-esteem among university undergraduates.

Table 4.15 Correlations between conflict of Instagram Feed Addiction and self-esteem

Correlations			
		IFA_Conflict	Total_RSES
IFA_Conflict	Pearson Correlation	1	-.297**
	Sig. (2-tailed)		.002
	N	106	106
Total_RSES	Pearson Correlation	-.297**	1
	Sig. (2-tailed)	.002	
	N	106	106

** . Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4.15, Pearson's correlation is utilized to find out the relationship between conflict of Instagram Feed Addiction and self-esteem among university undergraduates ($r = -0.297$, $p = 0.002$, $N = 106$). The data reveals that there is a weak negative correlation ($r = -0.297$) as it falls in the range of 0 to -0.5. Since the p value is less than 0.05 ($p = 0.002$), we fail to reject the alternative hypothesis. Thus, **there is a significant relationship between conflict of Instagram Feed Addiction and self-esteem among university undergraduates.** This result suggests that **higher levels of conflict in Instagram Feed Addiction are associated with lower self-esteem among university undergraduates.** However, this tendency is not very strong, even though it is statistically significant.

4.2.7.b To find out the relationship between the conflict of Instagram Stories Addiction and self-esteem among university undergraduates.

H7 b): There is a correlation between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.

Table 4.16 Correlations between conflict of Instagram Stories Addiction and self-esteem

Correlations			
		ISA_Conflict	Total_RSES
ISA_Conflict	Pearson Correlation	1	-.326**
	Sig. (2-tailed)		.001
	N	106	106
Total_RSES	Pearson Correlation	-.326**	1
	Sig. (2-tailed)	.001	
	N	106	106

** . Correlation is significant at the 0.01 level (2-tailed).

The data in Table 4.16 showed the result of Pearson's correlation which has been conducted to find out the relationship between conflict of Instagram Stories Addiction and self-esteem among university undergraduates ($r = -0.326$, $p = 0.001$, $N = 106$). It revealed that there is a weak negative correlation ($r = -0.326$) as it falls in the range of 0 to -0.5. The p value is smaller than 0.05 ($p=0.001$), hence we fail to reject the alternative hypothesis. Thus, **there is a significant relationship between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.** The result shows **higher levels of conflict in Instagram Stories Addiction are associated with lower self-esteem among university undergraduates,** although the tendency is weak.

Table 4.17 Summary for the findings

Aspects	Hypothesis	Results
Genders	H1a: There is a significant difference between genders on Instagram Feed Addiction.	H1a is rejected . There is no significant difference between genders on Instagram Feed Addiction.
	H1b: There is a significant difference between genders on Instagram Feed Addiction.	H1b is rejected . There is no significant difference between genders on Instagram Stories Addiction.
Salience	H2a: There is a correlation between salience of Instagram Feed Addiction and self-esteem among university undergraduates.	H2a is failed to reject . There is a weak negative correlation between salience of Instagram Feed Addiction and self-esteem among university undergraduates.
	H2b: There is a correlation between salience of Instagram Stories Addiction and self-esteem among university undergraduates.	H2b is rejected . Although there is a weak negative correlation between the salience of Instagram Stories Addiction and self-esteem among university undergraduates, this relationship is not statistically significant.
Tolerance	H3a: There is a correlation between tolerance of Instagram Feed Addiction and self-esteem among university undergraduates.	H3a is rejected . Although there is a weak negative correlation between the tolerance of Instagram Feed Addiction and self-esteem among university undergraduates, this relationship is not statistically significant.
	H3b: There is a correlation between tolerance of Instagram Stories Addiction and self-esteem among university undergraduates.	H3b is rejected . Although there is a weak negative correlation between the tolerance of Instagram Stories Addiction and self-esteem among university

		undergraduates, this relationship is not statistically significant.
Mood modification	H4a: There is a correlation between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.	H4a is failed to reject . There is a weak negative correlation between mood modification of Instagram Feed Addiction and self-esteem among university undergraduates.
	H4b: There is a correlation between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.	H4b is failed to reject . There is a weak negative correlation between mood modification of Instagram Stories Addiction and self-esteem among university undergraduates.
Relapse	H5a: There is a correlation between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.	H5a is failed to reject . There is a weak negative correlation between relapse of Instagram Feed Addiction and self-esteem among university undergraduates.
	H5b: There is a correlation between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.	H5b is failed to reject . There is a weak negative correlation between relapse of Instagram Stories Addiction and self-esteem among university undergraduates.
Withdrawal	H6a: There is a correlation between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.	H6a is failed to reject . There is a weak negative correlation between withdrawal of Instagram Feed Addiction and self-esteem among university undergraduates.
	H6b: There is a correlation between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.	H6b is failed to reject . There is a weak negative correlation between withdrawal of Instagram Stories Addiction and self-esteem among university undergraduates.
	H7a: There is a correlation between conflict of Instagram Feed Addiction	H7a is failed to reject . There is a weak negative correlation between conflict of Instagram Feed

Conflict	and self-esteem among university undergraduates.	Addiction and self-esteem among university undergraduates.
	H7b: There is a correlation between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.	H7b is failed to reject . There is a weak negative correlation between conflict of Instagram Stories Addiction and self-esteem among university undergraduates.

4.3 Discussion

Based on the findings related to gender differences in Instagram Feed Addiction and Instagram Stories Addiction, the results indicate no significant differences between genders. Although these findings contradict the initial hypotheses, they are consistent with several other studies. For instance, Fard et al. (2021) found no significant differences between male and female Iranian students in overall Instagram addiction scores and its dimensions. Similarly, research on young adults in Karnataka by Thomas et al. (2023) also reported no significant gender differences in Instagram addiction. A possible explanation for the lack of significant differences in this study could be the unequal sample sizes between male and female participants. According to Bhandari (2021), statistical significance is sensitive to sample size effects. In studies with very large sample sizes, even minimal effects can become statistically significant, whereas in studies with smaller or uneven sample sizes, meaningful differences may not reach statistical significance. This implies that minor effects might be exaggerated if they exceed the significance threshold, while important findings could be overlooked if they do not.

Regarding the relationships between salience and self-esteem, there is a significant relationship between the salience of Instagram Feed Addiction and self-esteem. However, there is no significant relationship between the salience of Instagram Stories Addiction and self-

esteem. To elucidate the definition of salience, Taylor & Thompson (1982) explain that salience refers to the phenomenon where specific aspects of the environment are given more importance in judgment and behavior when they capture our attention. In other words, salience refers to the degree to which a particular activity dominates an individual's thoughts and behavior. The differing relationships between Instagram Feed Addiction and Instagram Stories Addiction with self-esteem can occur due to several reasons. Firstly, the different usage patterns of Instagram feed and Instagram stories play a significant role. Users may spend more time curating and consuming content on the Instagram feed, which can be more reflective of their personal lives, achievements, and social interactions. This can have a more direct impact on self-esteem, as users compare themselves with others and seek validation through likes and comments. Additionally, behaviors related to Instagram Feed Addiction can be associated with fear of missing out (FOMO). According to Servidio et al. (2024), there is a negative association between FOMO and self-esteem. Steinberger & Kim (2023) stated that individuals who feel excluded and believe they are missing out tend to engage more in social comparisons, which often leads to feelings of self-inadequacy and personal discomfort. In contrast, Instagram stories are more temporary and casual, often used to share everyday moments without the same level of curation. This casual and ephemeral nature might result in a weaker connection to self-esteem issues, as the content is not as permanent or scrutinized as feed posts. Secondly, there are significant content differences between Instagram feed and stories. The content on the Instagram feed is often more polished and represents the highlights of users' lives. This can lead to more social comparison and pressure to maintain a certain image, directly impacting self-esteem. Meanwhile, stories can be less polished and more spontaneous, often disappearing after 24 hours. This reduces the pressure to present a perfect image and may lead to less impact on self-esteem. Lastly, the targeted audience and reach differ between the two features. Posts

on the feed are often visible to a wider audience, including friends, family, and followers. This broad visibility can enhance the impact on self-esteem as users seek approval and validation from a larger group. However, stories are often viewed by a more selective audience and can be restricted to close friends. The limited and selective visibility might reduce the impact on self-esteem.

The next component concerns tolerance. The results indicate that tolerance for both Instagram Feed Addiction and Instagram Stories Addiction has no significant relationship with self-esteem among university undergraduates. In this research, tolerance refers to the tendency to spend more time on Instagram to achieve the same level of satisfaction or enjoyment (Cheng et al., 2022). The lack of significant results might be due to the nature of tolerance, which involves increasing engagement to maintain satisfaction. This aspect of addiction may not directly impact self-esteem because it reflects a habitual adjustment rather than an emotional or psychological effect. Furthermore, excessive Instagram usage might be part of social acceptability and encouragement. When heavy Instagram use is socially acceptable or even encouraged, frequent use is perceived positively or as the norm within certain groups. For example, in a group where everyone regularly uses Instagram and views it as an enjoyable and essential part of socializing, high usage is less likely to be seen as problematic. It is found that the current study diverges from previous research. Social media users frequently encounter posts showcasing others' highlights and achievements, triggering feelings of envy, inadequacy, and an increased desire for social validation (Koyuturk et al., 2023; Panova & Carbonell, 2022). According to Ballara (2023), seeing others receive numerous likes, comments, and shares can amplify the need for validation in one's own posts. As a result, individuals may strive to emulate the perceived success of others, seeking similar levels of engagement to validate their content. However, when validation is lacking or negative feedback is received, it can negatively affect

individuals, leading to feelings of rejection, diminished self-esteem, and social anxiety. Additionally, people are continually exposed to a curated portrayal of others' lives on social media, emphasizing achievements, relationships, and experiences (Anderson & Wood, 2021). This environment fosters social comparison, as users measure themselves against these idealized images. Metrics such as likes, comments, and shares serve as tangible indicators of popularity and success, intensifying the quest for validation (Guinaudeau et al., 2022). Triêu et al. (2021) note that users often engage in upward social comparisons, measuring themselves against those who receive more likes or engagement. This can lead to feelings of inadequacy or envy, ultimately affecting users' self-esteem.

The third component of Instagram addiction is related to mood modification. Mood modification refers to the ability of an addictive activity to alter an individual's emotional state. This dimension of addiction is crucial as it often drives individuals to repeatedly engage in the addictive behavior to achieve a desired emotional effect. In the context of Instagram addiction, mood modification might involve using the platform to elevate one's mood or to escape from negative feelings. Both results regarding the relationships between mood modification of Instagram Feed Addiction and Instagram Stories Addiction on self-esteem indicate there are significant correlations between the variables. The findings suggest that university undergraduates who use Instagram feeds or stories to improve their mood may experience lower self-esteem. This might be because the temporary emotional uplift from Instagram does not resolve underlying issues and could even worsen feelings of inadequacy or dependency over time. For example, when individuals use Instagram, viewing positive posts, receiving likes, and engaging with content can create a fleeting sense of happiness or validation, however this uplift is temporary and does not solve underlying issues such as loneliness, stress, or deeper insecurities. Besides that, relying on Instagram for mood enhancement can be an avoidance

strategy, where individuals distract themselves from real-life problems rather than confronting and resolving them. Conversely, these results differ from Liu et al. (2019) and Mackson et al. (2019), who found that individuals might engage in downward social comparisons, comparing themselves to those perceived as less successful or less validated. This can temporarily boost their self-esteem, as they feel superior by seeing themselves as more successful and well-liked than others. However, this sense of superiority might be illusory, leading to complacency or a false sense of self-worth. Articles by Verduyn et al. (2020) and Wirtz et al. (2020) reported that positive emotional responses from social media use can lead to higher self-esteem, greater social connections, and improved subjective well-being. These positive emotions can motivate users to stay active on social media and benefit their overall psychological health.

The fourth component emphasizes relapse. Relapse in Instagram Feed and Stories Addiction refers to users returning to excessive use after attempting to reduce their engagement. This study found significant relationships between relapse of both Instagram Feed Addiction and Instagram Stories Addiction and self-esteem. Relapsing into addictive behavior indicates a struggle with self-control. This perceived lack of control can diminish self-esteem, as individuals may feel powerless to regulate their behavior. Frequent relapses can lead to feelings of guilt and shame, further reducing self-esteem. Users may feel ashamed of their inability to control their usage despite knowing its negative effects. Previous studies provide mixed insights into how the intensity of Instagram use affects self-esteem and well-being. For instance, Trifiro (2018) found a significant positive relationship between the intensity of Instagram use and well-being, suggesting that higher engagement can enhance feelings of community and social connectedness, boosting self-esteem. However, these findings seem to contradict the current study, which found a weak negative correlation between Instagram addiction and self-esteem. Kircaburun and Griffiths (2018) discovered that problematic Instagram use is

negatively associated with self-liking, while Martinez-Pecino and Garcia-Gavilan (2019) noted that individuals with higher self-esteem tend to use Instagram less excessively. This suggests that excessive use, often seen in addiction, can lower self-esteem. Additionally, Stapleton (2018) reported that participants whose self-esteem heavily depends on others' approval showed a stronger link between intense Instagram use and social comparison. This implies that users who frequently engage with Instagram Feed or Stories might be more prone to seeking validation through likes, views, and comments, leading to negative self-esteem if their expectations are not met. These mixed outcomes suggest that while some forms of Instagram engagement can enhance well-being and self-esteem, excessive or problematic use, especially when driven by a need for social validation, can harm self-esteem.

The fifth component is related to withdrawal. Withdrawal is characterized by negative feelings and discomfort when the addictive behavior is reduced or stopped. The findings from the current study shows that the withdrawal of both Instagram Feed Addiction and Instagram Stories Addiction have significant relationships with self-esteem. Withdrawal from Instagram often results in feelings of anxiety, irritability, and a sense of loss. This emotional distress can lower self-esteem as individuals struggle to cope without their usual source of validation and mood enhancement. The findings of this study align with several past studies regarding the withdrawal effects of Instagram addiction. According to Lopez & Polletta (2021), individuals with higher social anxiety tend to base their self-esteem on their Instagram presence, leading them to engage in content control behaviors such as editing captions, photos, and videos. This dependency suggests that withdrawal from Instagram could lower their self-esteem and increase anxiety. Keles et al. (2020) indicated that intense use of social networking sites correlates with increased anxiety and psychological distress, which are symptoms related to withdrawal. Passive browsing on Instagram, intensifies social comparison and body image than

text-based platforms (Burnell et al., 2019; Ryding & Kuss, 2020). Such comparisons during passive use negatively impact body image satisfaction, contributing to poor mental health outcomes like low mood, low self-esteem, and conditions such as eating disorders and body dysmorphia (Barnes et al., 2020). Consequently, reducing or stopping Instagram use can trigger withdrawal symptoms, exacerbating these negative feelings and psychological challenges.

The sixth component concerns the conflict arising from both Instagram Feed Addiction and Instagram Stories Addiction. In this context, conflict refers to the negative consequences and disruptions that excessive use of Instagram feed and stories can have on various aspects of an individual's life. According to Bouffard et al. (2021), extended Instagram use reduces overall relationship satisfaction, which in turn increases conflicts and induces negative outcomes. When relationship satisfaction is low, and conflicts over IG use are high, there is an increased risk of developing an addiction to Instagram. In other words, individuals may prioritize their time on the platform over meaningful interactions with family, friends, and romantic partners. For instance, excessive use of Instagram can lead to a person spending hours scrolling through their feed instead of engaging with loved ones. This neglect can strain relationships and create feelings of guilt, which in turn lowers self-esteem. When individuals realize that their social media usage is harming their relationships, they may feel inadequate and disappointed in themselves, further diminishing their self-worth. Other than that, many individuals seek approval through likes, comments, and followers, creating a pressure to conform to certain social standards or behaviors to gain peer validation. Failing to receive the expected validation can lead to feelings of rejection and low self-worth. Even when validation is received, it can result in a fragile self-esteem that heavily depends on external approval, making individuals vulnerable to fluctuations in social feedback. Several previous studies highlight how Instagram addiction impacts physical health, mental well-being, relationship and daily functioning. For

instance, Lemola et al. (2013) found that getting less than six hours of sleep negatively impacts self-esteem, a condition exacerbated by excessive Instagram use. A sedentary lifestyle and reduced physical activity levels resulting from excessive social media use can make people more susceptible to noncommunicable diseases like obesity, diabetes, and hypertension (Melkevik et al., 2015; Zou et al., 2019; Hu et al., 2001). Additionally, individuals with chronic pain who perceived their condition as uncontrollable and experienced depletion of their resources reported notably low levels of self-esteem (Skevington, as cited in Liu et al., 2019). Herzog-Krzywoszanska et al. (2021) linked self-esteem with daytime fatigue caused by bedtime procrastination, often due to late-night Instagram usage. Furthermore, Pekpazar et al. (2021) demonstrated that self-esteem affects Instagram addiction and procrastination, indirectly impacting academic performance. These findings collectively illustrate the conflicts between excessive Instagram use and physical health, mental well-being, relationships and daily responsibilities. They highlight the significant relationship between Instagram addiction and self-esteem, suggesting that the more individuals struggle with Instagram addiction, the more likely they are to experience negative impacts on their self-esteem.

4.4 Conclusion

The data analysis shows that there are certain components of Instagram Feed Addiction and Instagram Stories Addiction have significant relationship with self-esteem. There are several previous studies support and contradict the findings of this study.

CHAPTER FIVE

LIMITATION, IMPLICATION, RECOMMENDATION AND CONCLUSION

5.0 Introduction

This chapter will discuss the discoveries and reflections on the entire study process. As the research unfolded, the researcher identified both limitations and areas for improvement that could benefit future investigations. The outcomes of the study underscore the behavioral aspects related with Instagram addiction and its impact on the self-esteem of university undergraduates.

5.1 Limitations of the study

Due to the existence of two types of Instagram addiction (Instagram Feed Addiction and Instagram Stories Addiction) with similar types of components, it has created a confusion towards participants due to the similarity in the sentences used. One of the respondents reached out to the researcher stated that she was confused and assumed that there was an internet connection problem as she thought she filled the Section C: Instagram Addiction twice, without realizing there were two parts included in that section which were referring to Part 1: Instagram Feed Addiction and Part 2: Instagram Stories Addiction. Besides that, the time restriction for the data collection limits the effort of the researcher to distribute more to public, which then lead to a smaller sample size of population than expected. The expected sample size based on Krejcie and Morgan table towards the number of populations of 1 000 000 was 384, however due to the time restriction the researcher was only able to gather 106 respondents. The number of the respondents was lower than the half of the expected sample size. This could create a

suspicion towards the readers on the reasonableness of the study. This study also lack equality in the number of participants based on gender. Besides that, there is a potential bias when conducting this study because the researcher has her own predictions towards the outcomes of this study and her selection for variables in the research design may affect the validity and reliability of the findings. Overemphasis on objectivity is also one of the limitations of this study because the research may ignore the other related experiences of the participants which literally influence their problematic behaviors.

5.2 Recommendations for future research

After completing the process of conducting the study, the researcher recommends that it is better for the future researchers to conduct one type of Instagram addiction when using The Instagram Addiction Scale (TIAS). This action could display a better finding on certain features of Instagram and compare their influences of excessive usage to their desirable dependent variables. Besides that, it is recommended to emphasize on which components of Instagram addiction influence the dependent variable to determine the main factors which lead to the excessive usage of the application. Other than that, the researcher suggests that it would be a better approach if there are equal number of participants but diverse backgrounds to enhance the generalizability of findings. This approach would create a clear difference between the backgrounds of the participants and the variables which will be conducted. The collaboration with other researchers from other universities encourages the diversity and number of participants within the time given to conduct the study.

5.3 Conclusion

In conclusion, the analysis revealed insights into the relationship between Instagram addiction and self-esteem among university undergraduates. While gender differences in addiction tendencies were observed, with males leaning slightly towards Instagram feed addiction and females towards Instagram stories addiction, these variances were not statistically significant. However, across both genders, Instagram feed addiction was consistently more prevalent than Instagram stories addiction. Regarding the impact on self-esteem, significant but weak negative correlations were found between various dimensions of Instagram addiction—such as salience, mood modification, relapse, withdrawal, and conflict—and self-esteem. These correlations suggest that as addiction severity increases, self-esteem tends to decrease. While the correlations were weak, their statistical significance underscores the importance of these associations.

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APPENDIX

MATERIALS/INSTRUMENT

Electronic Informed Consent Form

ELECTRONIC INFORMED CONSENT FORM

By clicking on the "agree" button indicates that: ✱
(Dengan menekan butang "setuju", saya mengesahkan bahawa):

1. I have been read and understood the information for the above study.
(Saya telah membaca dan memahami segala maklumat tentang penyelidikan di atas).

2. I have sufficient time to consider participation in the study.
(Saya telah diberikan masa yang secukupnya untuk mempertimbangkan penyertaan saya dalam penyelidikan ini).

3. Understand that my participation is voluntary, and I can freely withdraw my participation from the study without giving a reason. I understand the risks and benefits related to my participation in the study.
(Saya juga faham bahawa penyertaan saya adalah secara sukarela dan pada bila-bila masa saya bebas menarik diri daripada penyelidikan ini tanpa harus memberi sebarang alasan. Saya juga memahami tentang risiko dan manfaat penyelidikan ini).

4. While information gained in this study, it may be used in a conference presentation, and may also be published in a journal article, I will not be identified. Information concerning me will remain strictly confidential.
(Kajian ini boleh dibentangkan di persidangan dan kajian ini juga boleh diterbitkan didalam jurnal, dengan syarat diri saya tidak akan dikenal pasti. Maklumat mengenai diri saya akan disimpan secara sulit).

5. I understand that study investigators, qualified monitors and auditors, the sponsor or its affiliates, and governmental or regulatory authorities, have direct access to my record in order to make sure that the study is conducted correctly, and the data are recorded correctly. All personal details will be treated as **STRICTLY CONFIDENTIAL**.
(Saya faham bahawa penyelidik, pemantau dan juruaudit terlatih, pihak penaja atau gabungannya, dan pihak berkuasa kerajaan atau undang-undang, mempunyai akses langsung dan boleh menyemak laporan saya bagi memastikan penyelidikan ini dijalankan dengan betul dan data direkodkan dengan betul. Segala maklumat dan data peribadi akan dianggap sebagai **SULIT**.)

☒ Agree

Part A: Demography

Section A: Demography

1. Gender *

- ☐ Male
- ☐ Female

2. Race *

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Bumiputera Sarawak
- ☐ Bumiputera Sabah
- ☐ Other: _____

3. Age *

- ☐ 19 - 22 years old
- ☐ 23 - 26 years old
- ☐ 27 - 30 years old
- ☐ 31 years old and above

4. University *

Choose



5. Year of study *

☐ Year 1

☐ Year 2

☐ Year 3

☐ Year 4

☐ Year 5

☐ Other: _____

6. CGPA *

☐ 3.50 - 4.00

☐ 3.00 - 3.49

☐ 2.50 - 2.99

☐ 2.49 and below

7. Socioeconomic status *

☐ B40 (Less than RM 4, 849)

☐ M40 (RM 4, 850 to RM 10, 959)

☐ T20 (RM 10, 960 and above)

Part B: The Instagram Addiction Scale (TIAS)

The Instagram Addiction Scale (TIAS)

Sholeh, A., & Rusdi, A. (2019). A New Measurement of Instagram Addiction: Psychometric Properties of The Instagram Addiction Scale (TIAS). *C/SAK*, 91-97

All scale here used 5-point Likert scale ranged from "strongly disagree", "disagree", "neither agree nor disagree", "agree", and "strongly agree". The minimum score possible for each question is 1, and the maximum is 5.

Short Item, TIAS-12

Component	IFA-12	ISA-12
Sallience	I often think of any photos/videos posted by others on the Instagram feed	I think before sharing a photo on Instagram Stories whether to share it to public or close friends
	I often think about what is happening on Instagram when I do not access it	I often plan to do a live stream (live stream) on Instagram
Tolerance	I post photos/videos on Instagram feed to attract others' attention	I make Instagram stories about my activities to get others' attention
	I commented on photos/videos posted by friends on Instagram feed to get feedback	I give comment on my friends' Instagram stories to get feedback
Mood Modification	I see the contents of Instagram feed posts to reduce feelings of guilt, anxiety, helplessness, or depression	I check the content of Instagram stories to reduce feelings of guilt, anxiety, helplessness, or depression
	I see the contents of posts on the Instagram feed to reduce restlessness	I see the contents of posts on the Instagram stories to reduce restlessness
Relapse	I try to limit my time for Instagram (see the feed), but it does not work	I feel there is an urge to continue checking Instagram stories continuously
	I decided to look at Instagram feed less often, but I did not manage to do it	I feel bored if I do not see the contents of Instagram stories
Withdrawal	I get easily irritated if I am prohibited from seeing the Instagram feed	I get irritated easily if I am prohibited from watching Instagram stories
	I become anxious or I have problems if I am prohibited to check my Instagram (see the feed)	I get nervous if I am prohibited from watching Instagram stories
Conflict	I find it hard to share time for hobbies, rest, or exercise because I spend my time checking Instagram feed	I watch Instagram stories too much that I neglect work/lectures/study time
	I find it hard to sleep early because I always see feed on Instagram	I find it hard to spend my time into hobbies, rest, or exercise because of Instagram stories

A total score of IFA-12 is calculated by adding up each item score (ranging from 12 to 60)
The higher the score, the greater the Addiction on Instagram Feed

A total score of ISA-12 is calculated by adding up each item score (ranging from 12 to 60)
The higher the score, the greater the Addiction on Instagram Stories

Part C: Rosenberg Self-Esteem Scale

Scale:

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

2. At times I think I am no good at all.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

3. I feel that I have a number of good qualities.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

4. I am able to do things as well as most other people.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

5. I feel I do not have much to be proud of.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

6. I certainly feel useless at times.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

8. I wish I could have more respect for myself.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

10. I take a positive attitude toward myself.

Strongly Agree	Agree	Disagree	Strongly Disagree
----------------	-------	----------	-------------------

Scoring:

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

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