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PERCEIVED STRESS, RESILIENCE, SELF-ESTEEM AS PREDICTORS OF LIFE SATISFACTION AMONG UNIVERSITY STUDENTS IN MALAYSIA

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A RESEARCH PROJECT
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Perceived Stress, Resilience, and Self-Esteem as Predictors of Life Satisfaction among University Students in Malaysia

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This research project is submitted in partial fulfilment of the requirements for the Bachelor of Social Science (Hons) Psychology, Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman. Submitted on April 2023.

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APPROVAL FORM

This research paper attached hereto, entitled “Perceived Stress, Resilience, and Self-Esteem as Predictors of Life Satisfaction among University Students in Malaysia” prepared and submitted by “Chueh Di-An, Hen Cavin and Lim Ya Xuan” in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

Date: 10 April 2023

Supervisor

(Dr. Nurul Iman Binti Abdul Jalil)

Abstract

Life satisfaction of university students has been discovered to be significantly linked with mental health issues such as anxiety, stress, and depression. To ascertain the predictive impacts of perceived stress, resilience, and self-esteem on life satisfaction among Malaysian university students, a quantitative and cross-sectional study was carried out. The Sociometer Theory and the Stress and Coping Theories served as the study's theoretical foundation. With the use of the purposive and snowball sampling techniques, 99 respondents were found. An online questionnaire was distributed to the participants through MS Team, Messenger, WhatsApp, and so on. The participants were students enrolled in Malaysian public or private institutions, ranging from the age of 19 to 24 years old (M = 21.46). There were 42.4% of male participants (*n* = 42) and 57.6% of female respondents (*n* = 57). The Perceived Stress Scale (PSS), Brief Resilience Scale (BRS), Rosenberg Self-Esteem Scale (RSES), and Satisfaction with Life Scale were the tools employed in this study (SWLS). The findings discovered that only self-esteem was significant and positively predict life satisfaction, while perceived stress and resilience were not a significant predictor to life satisfaction among Malaysian university students. Therefore, this study may offer a more in-depth insight into pertinent topics and play a part as useful pointers for future researchers. All the information within this study could also provide significant knowledge for responsible authorities to come out with effective strategies in booting the life satisfaction among university students in Malaysia.

Keywords: perceived stress, resilience, self-esteem, life satisfaction, university students

DECLARATION

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

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Table of Contents

List of Tables

List of Figures

List of Abbreviations

Abbreviations	
IV	Independent Variable
DV	Dependent Variable
K-S Test	Kolmogorov-Smirnov Test
MLR	Multiple Linear Regression
SAWS	Self-Assessed Wisdom Scale
PCOISS	Perceived Control of Internal States Scale
REI	Rational-Experiential Inventory
SWLS	Satisfaction with Life Scale
PSS	Perceived Stress Scale
DASS	Depression Anxiety Stress Scale
PF-SOC	Problem-Focused Style of Coping
CES-D	Center for Epidemiologic Studies-Depression
BRS	Brief Resilience Scale
RSES	Rosenberg Self-Esteem Scale
S-W Test	Shapiro-Wilk Test
Q-Q Plot	Quantile-Quantile Plot
VIF	Variance Inflation Factor

Chapter I

Introduction

1.1 Background of Study

Before the present, life satisfaction has been frequently mentioned or discussed by a myriad of researchers in distinct contexts or circumstances. Life satisfaction can be defined as the overall approach of intellectually self-evaluating well-being over many aspects of an individual's life, including employment, physical and psychological health, family, and sexual realm (Rogowska et al., 2021). Additionally, life satisfaction represents one of the most crucial indicators of effectively managing life, and it has positive effects on one's health, life span, and social interactions (Rogowska et al., 2021). Besides, another research described life satisfaction as a positive assessment of a person's entire life experience in perspective of the standards or values that the individual has set for themselves (Gökalp & Topal, 2019).

In terms of high life satisfaction, various characteristics are categorized as key indicators leading to high life satisfaction among individuals. For instance, high income, work satisfaction, need fulfillment, level of resilience and social support or connections (Rogowska et al., 2021). According to various research, high social support and social connections predict high life satisfaction among individuals. (Qudsyi et al., 2020). Other studies also mentioned that the perceived financial standing of university students also leads to a great impact on their level of life satisfaction among them. It has been discovered that life satisfaction rises as economic standing does (Savi Çakar, 2012). In addition, according to several studies, undergraduates who report high levels of life satisfaction assume greater responsibility for their various responsibilities. They are more satisfied in their love relationships, work, and home and less likely to be stressed out (Gökalp & Topal, 2019).

Apart from having high life satisfaction, some key indicators will lead to low life satisfaction among individuals. For instance, a study by Rogowska et al. (2021) discovered that students' concern over obtaining the appropriate credentials causes the increase of anxiety and it was a major predictor of reduced life satisfaction. On top of that, Tsitsas et al. (2019) also support that a high level of anxiety has been associated with poorer life satisfaction. One of the reasons causing high level of anxiety are due to the transferring from school to university, which necessitates learning on how to manage additional activities while preserving autonomy and self-sufficiency (Tsitsas et al., 2019). Furthermore, research also found that the social factor like peers is also considered one factor determining the level of life satisfaction of university students. To illustrate, peer education, a technique of self-monitoring on students are being thought to be one of the methods to boost students' satisfaction with life (Qudsyi et al., 2020).

As mentioned, either low or high life satisfaction is affected by various indicators as well as leading to distinct consequences that may affect individual well-being or quality of life. A study by Lombardo et al. (2018) has found that life satisfaction and subjective mental health issues were strongly correlated even after concurrently considering variables like sex, financial status, and general health in this study. A study stated that the issue of students' poor mental health in higher education is becoming more significant regarding public health and legislation (Campbell et al., 2022). Depression, anxiety, and stress were all becoming common and significantly affecting students' mental health. Research conducted by Campbell et al. (2022) has shown that all university institutions indicated that students had undergone a depression phase, and 99% said that students had significant anxiety. To summarize, stress has been a major indicator that significantly affects one's mental health and eventually impacts one's life satisfaction.

In this context, stress undeniably affects one's level of life satisfaction. Individuals from different classes have frequently experienced perceived stress. It can be identified as a normal and indispensable component of everyone's life (Lee et al., 2016). According to Lazarus and Folkman (1984) theory of stress and coping, stress can be defined as a two-way process where people engage with their surroundings. Alternatively, individuals feel stress when they perceive a circumstance as stressful and the individual has insufficient resources to handle the environmental cues (Lee et al., 2016). This study uses the term 'perceived stress' as the variable predicting life satisfaction regarding Lazarus and Folkman's concept of cognitive evaluation for coping.

Initially stepping into the university field, it can be viewed as a time of negotiating with fresh problems in both academics and life (Tsitsas et al., 2019). With students starting to move out of their parent's homes and take more responsibility for their schedules, entering the tertiary education field is a stressful and challenging time when a significant life transition into adulthood takes place (Lee et al., 2016). University years are also a time when people are subjected to ongoing stress brought on by changing situations in their lives (Towbes & Cohen, 1996). Nevertheless, not every individual has trouble adjusting to university life. Despite the increased stress level, some students can successfully adjust to life transitions and retain high levels of life satisfaction (Lee et al., 2016). In other words, it can be said that an appropriate amount of stress might stimulate an individual's productivity and effective performance (Alsaleem et al., 2021). On the other hand, if the stress associated with the adjustment to university life is not well managed, it will significantly result in a decreased level of life satisfaction (Lee et al., 2016).

Moreover, resilience as a predictor has also often been discussed about the correlation with life satisfaction. Resilience can be clarified as the capacity to bounce back after a negative experience and tackle life's obstacles and hardships in a constructive and adaptable

way (Morales-Rodríguez et al., 2021). Besides, another definition of resilience from the study by Rogo et al. (2022) stated that it is described as the capacity to promptly recover from a crisis and swiftly revert to the status before it occurs. In the meantime, they are recovering swiftly from stressors and becoming stronger as a result. As an individual's level of resilience rises, the individual will handle challenging circumstances more calmly. It will enable the individual to be more at ease with their daily routines, allowing them to let go of annoyance and eventually increase life satisfaction (Kaçay et al., 2017).

Once students have stepped into the university field, they often spend more time at school or university than at home. It can be said that it is challenging to live in this difficult period, which is marked by fast change and economic uncertainty. Hence, most students who have just started college or university exhibit signs of despair and mental health issues (Md Khalid, 2021). There is a period where an individual's resilience plays an essential role in aiding students to increase their life satisfaction. There are evidence reveals that a high resilience persons have greater mental health, and they can possess all the necessary traits to properly handle life’s new obstacles and hardships (Hamdan-mansour & Hamdan-Mansour, 2015). Eventually, the student's life satisfaction will be affected by various challenges that are unable to tackle by the students.

The study by Kaçay et al. (2017) demonstrated that resilience level and life satisfaction showed a positive and significant correlation which means that an individual's life satisfaction enhances when the degree of resilience does. Moreover, a study conducted among university students in the medical area has also proven that an increased level of resilience will result in higher satisfaction with life (Aboalshamat et al., 2018). Besides, another study by Wang et al. (2022) also supports the correlation between resilience and life satisfaction. The study concluded that resilience could uni-directionally and favorably correlate with life satisfaction among medical students. The study also suggests the medical

professions may think about implementing resilience-enhancing activities to increase med students' level of resilience. Therefore, it can be viewed that the variable, resilience, is a significant predictor of life satisfaction among university students.

Lastly, self-esteem has also been shown to correlate with life satisfaction by various past studies (Ye et al., 2012). There are various definitions for self-esteem, including the one from Rosenberg defines self-esteem as one's total assessment of one's own emotions and thoughts in connection to oneself as well as their positivity or negativity towards themselves (Park & Park, 2019). Another definition is from Skodol (1998), which defines self-esteem as the feeling of self-worth, respect, and tolerance concurrent with an expectation of accomplishment in life. Individuals with high self-esteem are autonomous and exhibit good behavioral traits, namely leadership abilities, high resilience, self-confidence, feeling appreciated, self-assertive, and so on (Kaçay et al., 2020). Therefore, high self-esteem is deemed to be significant as it is correlated with a greater level of psychological well-being, which will lead to a positive impact on the individual's life satisfaction and vice versa (Mahanty et al., 2015)

The responsibility of holding responsibility for a nation's future is ingrained in students. Maintaining a high level of self-esteem may not be simple as it plays a significant and influencing role in their academic performance and transition to a post-study career (Saad et al., 2020). Various findings of the study have proven that when an individual maintains a high level of self-esteem, they can achieve higher life satisfaction. For example, a study has confirmed that life satisfaction positively correlates with self-esteem. Distinct studies also support the fact that an individual's self-esteem rises when they achieve their intended goals, get job advancement, successfully deal with psychological changes, consider themselves competent and so on (Szcześniak et al., 2021). All these determinants, which are

characterized as components of increasing life satisfaction, have a profound effect on people's subjective perceptions of their worth (Lounsbury et al., 2004).

In short, this present study aims to determine whether perceived stress, resilience, and self-esteem predict life satisfaction among university students in Malaysia.

1.2 Problem Statement

Over the past ten years, research on the factors predicting students' overall life satisfaction has grown steadily. A past study revealed that about 63.4% of the 200 university students suffered from low life satisfaction (Tsitsas et al., 2019). Another study by Ramachandran et al. (2018) also presented that 65% of female students experienced poor life satisfaction compared to male students. Meanwhile, students' life satisfaction and its predictors have been identified in previous studies. Emotional and behavioral problems (Arslan, 2016), career adaptability (Hlaďo et al., 2021), sleep quality (Ness & Saksvik-Lehouillier, 2018), negative health attitude (Kotera et al., 2020), and demographic circumstances such as academic level (Afolabi & Balogun, 2017), were found to be correlated with students' life satisfaction. Nevertheless, notwithstanding the rising quantity of studies on predictors of students' life satisfaction, there are still countless personal factors that play an essential role in students' life satisfaction that remain undiscovered. For instance, perceived stress, resilience, and self-esteem. Despite a few studies on Malaysian university students, most of the studies focused on different predictors (Ooi et al., 2022) or specific faculties (Kotera et al., 2020). Studies on perceived stress, resilience, and self-esteem as predictors of life satisfaction for all university students in Malaysia have been lacking.

According to Ooi et al. (2022), World Health Organization data shows that mental health conditions are becoming increasingly prevalent among young adults. It has been claimed that students worldwide suffer from poor mental health, with significant levels of stress, anxiety, and depression. Undergraduates studying in Malaysia are not exempt from

poor mental health too. Among university students in Malaysia, the rate of mental health problems has doubled from 10% (2011) to 20% (2016) (Kotera et al., 2020). Harte (2022) has identified events that may be perceived as stressful by students: parental issues, financial issues, time constraints on submitting assignments, and relationships. The transition period from adolescence to adulthood that they experience is challenging too. In 2015, Phang et al. (2015) reported that about 50% of public university students in Malaysia were experiencing stress due to their academic performance. Plus, Kumar et al. (2016) also stated that one's mental well-being is one of the utmost important factors of life satisfaction. A strong negative correlation was also found between stress and life satisfaction for university students. Ultimately, students who are unable to manage their stress will have trouble adjusting, which will ultimately result in lower levels of life satisfaction (Lee et al., 2016).

As students are often overwhelmed by stress during their university life, resilience could be a pillar of their mental well-being. Studies suggest that effective interventions can reduce stress, anxiety, and depression in higher education students by enhancing resilience and well-being (Galante et al., 2018; Hill et al., 2018). It is also known that resilience contributes to tremendous student success and life satisfaction, particularly among vulnerable students (Lohner & Aprea, 2021). Besides, another study by Rivera et al. (2021) supported this, which stated that resilience could help people cope with stress. It can also help them maintain their social and personal well-being and, in turn, guarantee better life satisfaction. Based on Kotera et al. (2020), people with higher levels of resilience tend to experience greater life satisfaction as they focus more on the positive side of an event, and they are less likely to suffer from stress for an extended period. Positive mental health is associated with resilience, and students in Malaysia have yet been studied in depth regarding this topic.

As defined by researchers, self-esteem refers to one's perception of themselves. It is how they evaluate themselves, whether positively or negatively (Hawi & Samaha, 2016).

Adolescents with high self-esteem tend to be more fulfilled and have positive developmental outcomes, while those with low self-esteem tend to be vulnerable to risky behaviors and adverse development outcomes. For instance, those who suffer from low self-esteem are more likely to attempt suicide. The effects of low self-esteem on suicidal thoughts and negative expectations of the future have been shown in several studies among adolescents (Saad et al., 2020). Coskun et al. (2010) have also mentioned that psychological health and functioning are linked to one's self-esteem. Hence, it is desirable to maintain high levels of self-esteem. Saad et al. (2020) have also shown a strong correlation between self-esteem and life satisfaction among university students. At the same time, self-esteem and life satisfaction was found to be significantly correlated in the study by Coskun et al. (2010). To date, research on the predictive effect of self-esteem on life satisfaction among university students could be barely found. Thus, this current study is conducted to fill in the knowledge gap of self-esteem and life satisfaction together with two other predictors, perceived stress, and resilience, in Malaysia.

1.3 Research Questions

1. Does an individual’s perceived stress negatively predict the life satisfaction among university students in Malaysia?
2. Does an individual’s resilience positively predict the life satisfaction among university students in Malaysia?
3. Does an individual’s positively predict the life satisfaction among university students in Malaysia?

1.4 Research Objective

1. To assess how perceived stress predict life satisfaction among university students in Malaysia.
2. To assess how resilience predict life satisfaction among university students in Malaysia.

3. To assess how self-esteem predict life satisfaction among university students in Malaysia.

1.5 Hypotheses

H_1: An individual's perceived stress negatively predicts life satisfaction among university students in Malaysia.

H_2: An individual's resilience positively predicts the life satisfaction among university students in Malaysia.

H_3: An individual's self-esteem positively predicts the life satisfaction among university students in Malaysia.

1.6 Significance of Study

The present study intended to investigate the predictive effect of perceived stress, resilience, and self-esteem on satisfaction with life among university students in Malaysia. The findings of the study aims to fill in the knowledge gap of the community, mainly university students in increasing their knowledge towards the effects of how perceived stress, resilience and self-esteem predict their life satisfaction. Furthermore, majority of the past studies were focusing on other factors on life satisfaction among university students such as academic performance, and mental health issues (social anxiety and depression)(Foroughi et al., 2021). Hence, the findings of the current study could as well fill in the knowledge gap of other personal factors that were rarely discovered in past research, namely perceived stress, resilience, and self-esteem.

Other than that, this study contributes to increase people's awareness on the affection of perceived stress on one's life satisfaction. As mentioned by Ooi et al. (2022), psychological wellbeing issues have been highly prevalent among young adults especially university students. It was also found that perceived stress is correlated with depression among university students (Liu et al., 2021). Therefore, the findings of this study could

greatly enhance people's awareness about the seriousness of the role of perceived stress and take precaution steps so that negative consequences like depression could be avoided.

Besides that, this study could be useful for the students to understand their own level of resilience and self-esteem which could greatly impact their stress coping and eventually enhance their life satisfaction. This study could be seen as a reminder for them to practice on how to increase one's resilience and self-esteem if they ever found out that they have relatively low level of resilience and self-esteem. The students could seek external help too including counselor in the university. Goodman (2017) revealed that university provides the ideal setting for students to acquire the skills necessary to maintain their welfare and mental health throughout their lives. Therefore, this study is indeed beneficial for the educational institution to be aware of student's wellbeing and be ready to provide students the services or skills to ultimately help them to have increased life satisfaction.

Lastly, this research is aimed to provide knowledge on how these factors can affect the current society which will be beneficial to other researchers that decide to extend their study on related field. For instance, future researchers could opt to examine other personal factors that might have association on student's life satisfaction. On the other hand, the findings presented in this study will help to convey valuable information for future research that will explore a more in-depth analysis on how the predictors affect the quality of life of the individuals residing in Malaysia.

1.7 Conceptual Definitions

Perceived Stress

Stress can be defined as a two-way process where people engaged with their surroundings. Individual feels stress when they perceive a circumstance as stressful, and the individual have insufficient resources to handle the environmental cues (Lee et al., 2016).

Resilience

Resilience can be characterized as the capacity to swiftly recover from a catastrophe or deal with it on a psychological or emotional level (Haider et al., 2022). People who are resilient tend to focus more on the positives such as strengths and chances, rather than the negatives like inadequacy and vulnerabilities (Kotera et al., 2020).

Self-Esteem

Self-esteem is often explained as an individual collection of beliefs about his or her own value and significance. Later, the concept of self-esteem was introduced to refer to personality traits operationally defined as a feeling of self-worth (Hlaďo et al., 2021). Besides, according to Moksnes and Espnes (2013), the extent to which an individual perceives and evaluates himself or herself is reflected in their self-esteem as well.

Life Satisfaction

Life satisfaction refers to the process by which a person assesses whether his or her life is positive based on his or her personal standards. Additionally, it can be also defined that people who compare what they have and desire to have been more likely to be satisfied with their lives (Taş & İskender, 2017).

University Students

The phrase “university students” is defined as students between the age of 17-25 who receive higher education in a college or university and also considered to be the future decision-makers (*What is university students,* n.d.)

1.8 Operational Definitions

Perceived Stress

The perceived stress of university students will be measured using the Perceived Stress Scale (PSS), developed by Cohen et al. (1983). It consists of 10 items with 5-point Likert scale from (0= never) to (4= very often). There are 4 out of the 10 items which need to be reversed before scoring, which are item 4, 5, 7, and 8. This scale is used to measure one’s

self-esteem by inquiring about one's thoughts and feelings for the previous month. The range of the score is from 0 to 40 with higher scores indicating a greater tendency of perceived stress (Cohen et. al, 1988).

Resilience

Resilience level of undergraduates will be measured by the Brief Resilience Scale (BRS, developed by Smith et al. (2008). The BRS is utilized to measure one's level of resilience. It has 6 items with 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). The reversed score for the second, fourth, sixth items and score for the remaining items were added together to get the final score. The higher total score indicates higher resilience (Smith et al., 2008).

Self-Esteem

Rosenberg Self-Esteem Scale (RSES) will be used to assess the students' level of self-esteem. Morris Rosenberg has created the RSES in the year of 1965, and till now it is frequently utilized in the different area such as psychology, mental well-being and so on (Tinakon & Nahathai, 2012). It involves 10 items with 4-point Likert Scale (1= strongly agree, 2= agree, 3= disagree, 4= strongly disagree), and it is used to measure one's self-esteem. Items 2, 5, 6, 8, and 9 have to be reversed before proceeding to scoring. The total score range between 10 to 40 with the higher score indicates higher self-esteem (Rosenberg, M. 1965).

Life Satisfaction

Satisfaction with Life Scale (SWLS), established by Ed Dineris and colleagues in 1985. It is utilized to measure one's life satisfaction. It consists of 5 items with 7-point Likert Scale (1= strongly disagree, 2= disagree, 3= slightly disagree, 4= neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree). There is no reverse item for this scale. The total score range between 5 to 35. The higher score indicates more higher satisfaction (Diener

et al., 1985).

University Students

University students who aged between 19-25 from both public and private universities in Malaysia will be characterized as the target participates of the study.

Chapter II

Literature Review

2.1 Perceived Stress and Life Satisfaction

Stress is a state in which the balance of a person's life is disrupted by challenges or threats (Rezaei & Mousanezhad Jeddi, 2018). Most of the time, students experience stress due to various situations, including academic pressure, concern about the future, issues with interpersonal relationships, and self-doubt. All these stressors will thereby lead to adverse mental health conditions such as depression, stress, and anxiety (Lardier et al., 2020). Meanwhile, the literature by Ooi et al. (2022) has highlighted that depression, stress, and anxiety are the most prevalent mental health problems among university students in Malaysia. Furthermore, the students are also at risk of developing suicidal intentions, which might affect their academic performance. Overall, these issues can have a profound impact on an individual's welfare and life performance.

It has been suggested by Lazarus and Folkman (1984) that stress is not solely a reaction to negative events but rather a two-way interaction with one's environment. Notably, stress will cause a detrimental impact on one's well-being and functioning only in circumstances where the situation is perceived as stressful by the person, and their resources are insufficient to cope with it. Referring to the findings from Lee et al. (2016), a total number of 282 participants were recruited from three Korea universities. Perceived Stress Scale, Satisfaction with Life Scale, and Self-Efficacy Scale were utilized. It was found that self-efficacy serves as a mediator between perceived stress and students' life satisfaction. However, it only imposes a partial mediation effect as life satisfaction, and perceived stress remained significantly correlated.

Additionally, 430 students from Malaysian private universities were surveyed cross-sectionally using a convenient sampling method in a prior study by Ooi et al. (2022). This

study used self-administered questionnaires that included the Satisfaction with Life Scale, Interpersonal Needs Questionnaire, and Depression, Anxiety and Stress Scale (DASS-21). The study stated that negative self-worth is harmful to one's well-being, as it causes one to perceive themselves as burden to others. Consequently, dealing with psychological distress significantly impacted their perception of life satisfaction. It was also found that individuals with low thwarted belongingness appeared to experience poorer life satisfaction when exposed to stress. In short, students with high levels of stress were less satisfied with their lives.

Later in research by Lardier et al. (2020), 170 undergraduate Hispanic students from a public Hispanic Serving Institution (HSI) in the Northeastern United States with an average age of 20.2 participated in the study. The instrument used in the study were PSS-10 (Perceived Stress Scale – 10), PF-SOC (Problem-Focused Style of Coping), CES-D (Center for Epidemiologic Studies–Depression), and SWLS (Satisfaction with Life Scale). The participants' satisfaction with their school performance was assessed by asking them to rate directly in the following way: 1 indicates very dissatisfied, 2 indicates dissatisfied, 3 indicates satisfied, and 4 indicates very satisfied. It was recognized that stress encountered by university students is often ongoing and persistent, which makes people more vulnerable to mental health issues like depression and has a damaging effect on their satisfaction with life. For Hispanic college students, these difficulties are exacerbated because of (un)expressed expectations, the distinct lack of social support for racial minorities, and sociocultural experiences like those connected to generational status, disenfranchisement, and structural racism, which thus makes it challenging to manage stress. Altogether, Hispanic undergraduates' life satisfaction decreases as their stress levels rise.

According to Rezaei and Mousanezhad Jeddi (2018), the random cluster sampling method was used to recruit 399 students with a mean age of 27. Several instruments were

used in the data collection process, including the SAWS (Self-Assessed Wisdom Scale), the PCOISS (Perceived Control of Internal States Scale), the PSS (Perceived Stress Scale), the TSIS (Tromso Social Intelligence Scale), the REI (Rational-Experiential Inventory), and the SWLS (Satisfaction with Life Scale). The results showed that perceived stress was the best indicator of students' life satisfaction. There have been observed statistically significant links between life satisfaction and perceived stress. More stress will be experienced when one feels less satisfied with his or her own life (Mousanezhad Jeddi, 2018). Besides, students who perceive that reward depends on the will of powerful others, chance, luck, and fate may become more stressed out academically, which will diminish their level of satisfaction with life. In other words, students with an external locus of control feel tremendous stress at university and are less satisfied with their lives (Karaman et al., 2017).

Moreover, Kumar et al. (2016) recruited a total number of 398 undergraduates from the Medical Sciences faculty, Engineering faculty, and Social Sciences faculty. The DASS (Depression Anxiety Stress Scale) and SWLS (Satisfaction with Life Scale) were chosen to examine the association between mental distress and satisfaction with life among the students. It was reported that several factors may contribute to a student's life satisfaction, and mental health is the crucial one. Stress and mental illness are strongly related among university or college students. Based on the findings, due to the numerous hurdles, intense work pressure from lengthy hours, and excessive stress that the medical field brings, medical students generally endure more psychological stress than other students. The association between psychological distress and life satisfaction was mentioned to be significant. The result of this study is also aligned with the study carried out by Alleyne et al. (2010), which supported that students who evaluated their stress levels as being higher expressed less life satisfaction.

Other than that, the research by Civitci (2015) compromised 477 undergraduates from a Turkish public institution. To investigate the effects of college belonging, major belonging, and extracurricular participation on perceived stress and life satisfaction, the PSS (Perceived Stress Scale) and SWLS (Satisfaction with Life Scale) were utilized. The study found that college students who are highly connected to their colleges and majors have less stress and are more satisfied with their lives. Students with a greater sense of belongingness result in higher levels of academic proficiency, self-worth, social acceptance, and interpersonal interaction, and extracurricular activities may help these students grow personally, socially, and academically. In this case, extracurricular activities could facilitate less perceived stress and greater life satisfaction for students with high college belongings.

In spite of that, academic stress could be classified into two, which are eustress (positive stress) and distress (negative stress). When an individual experiences eustress, they are motivated to respond positively to the stressor and are able to achieve positive outcomes, such as a sense of accomplishment and excitement (Chua et al., 2018). To date, most studies on the impact of stress have concentrated on its detrimental impacts, while its beneficial aspects have received much less attention (Kamaruddin et al., 2021). According to the study by O'Sullivan (2010), eustress and life satisfaction are highly correlated. In other words, people who expressed more positive stress also showed greater life satisfaction. Hence, this study is necessary to be conducted to determine whether stress experienced by university students in Malaysia promotes or reduces their overall life satisfaction.

2.2 Resilience and Life Satisfaction

Resilience can be clarified as the capacity to bounce back after a negative experience and tackle life's obstacles and hardships in a constructive and adaptable way (Morales-Rodríguez et al., 2021). Resilience in the academic context can be defined as the student's

capacity to manage academic failures, anxiety, and academic pressure well. In the present day, students have to deal with various issues not only in their academics but also in the broader community. If proper measures are not taken to address these issues, students will encounter stress, pressure, and other psychological health issues (Kalaivani, 2021). According to a recent report conducted in Germany, there are more than 80% of undergraduate students experience challenges related to performance and time. In addition, there are approximately 25% of people reported signs of academic burnout, 17.4% experienced anxiety, and 15.6% showed signs of depression.

There is a possible measure for an individual to tackle the new tough and unfamiliar environment that they face in the university to improve a student's resilience level (Lohner & Aprea, 2021). Resilience has become one of the crucial elements that contribute to students' well-being. (Archana et al., 2014). People with high degrees of resilience were seen to be persevering, self-sustaining, empathetic, and to have defined life objectives that they constantly worked toward achieving despite obstacles or problems (Wang et al., 2022). All these determinants are characterized as components of enhancing one's life satisfaction (Lounsbury et al., 2004).

According to Wang et al. (2022), the study conducted is to investigate the association between the academic exhaustion and life satisfaction among medical students and the potential mediation impact of resilience in this association. It is a three-wave longitudinal research spanning the 20-month preclinical educational phase and there are overall 190 medical students in China has involved in this research. The finding of the study shows that the variable, resilience was concluded as a strong predictor which could unidirectionally and favorably predict life satisfaction among students in the medical field. Besides, this study also encourages resilience, a crucial psychological component that can be successful in assisting medical students in reducing mental stress and enhancing subjective well-being. Therefore,

this study also mentioned that the medical profession should take into consideration about resilience improvement programs to increase their resilience level and indirectly enhance their overall life satisfaction.

Besides, the finding of the study is in line with the result of another recent study conducted by Haider et al. (2022), which the study is carried out to investigate the correlation between resilience, coping strategies and life satisfaction among medical students throughout the epidemic. There are 351 medical students involved in fully completing the cross-sectional online questionnaire. The results shows that resilience score and life satisfaction indicated a favorable and slightly linear association among medical students. However, the student is conducted in the context of COVID-19 pandemic period. Along with academic adjustments during the epidemic, the loss of peer contact and social connections, the potential for students to be sent to dangerous regions in times of emergency and worries for their own and their families' well-being were of utmost importance. Hence, it is significant to investigate the resilience level among students to determine whether they can bounce back or recover swiftly from the crisis that occurred. Besides, the finding of this study also clarified that the score of life satisfaction raised by 40% for every increment of a unit in resilience.

Moreover, another study by Md Khalid (2021), was conducted to investigate whether there is a correlation between social support, resilience, and life satisfaction among undergraduates in Malaysia. There is a summation of 491 students from Malaysia engage in this research and the questionnaires were utilized to gather the data. The findings of this study have been confirmed to be similar to other results from the study above, showing that people with a high level of resilience are having a higher possibility of reaching greater life satisfaction. This study has also concluded with a suggestion that it is essential for higher-educated students to learn the value of developing strong resilience as it enhances an individual's ability to handle life's hardships and confront incredibly difficult emotions. At

last, they can enhance their life satisfaction by tackling all the obstacles faced by the individual either in university or society (Md Khalid, 2021).

Furthermore, the study by Cazan and Truta (2015) has undergo research to determine the relationship between three variables including perceived stress, resilience, and life satisfaction. A total of 341 students from different university's faculty in Rome has been recruited to participate in the study. After the data being analyzed, this study has concluded that resilience is favorably correlated with life satisfaction among students from various Romanian universities or colleges and has also been supported by another article (Abolghasemi et al., 2010) as well. The study's key finding is that those with high levels of resilience are predicted to handle adversity effectively and adapt more smoothly. Consequently, the study is also increasing the awareness among readers concerned about the potential for designing programs or strategies to assist resilient people in recovering from stressful events and improving their life satisfaction as well as leading them to a successful modification.

Lastly, a study by Shi et al. (2015) has also discovered a similar result regarding the correlation between resilience and life satisfaction. Yet, in this study, resilience has been categorized as a mediating role in determining the correlation between stress and life satisfaction among medical students in China. There are four medical institution and universities with a number of 2925 medical students involved in this multiple-center cross-sectional research. Regarding the finding of the study, it demonstrated that medical students with high perceived stress scores had poorer resilience, which also led to lower levels of life satisfaction, whereas those with low perceived stress scores obtained better resilience, which indeed contributed to a higher level of life satisfaction. Additionally, people with high resilience are much more likely to get value from the difficulties they encounter by presenting a variety of psychological assets such as serenity, positivity, high openness, and low level of

neuroticism. This variety of characteristics of a resilient individual are resulting in higher life satisfaction, as reported in the study.

In short, all studies regarding the correlation between resilience and life satisfaction obtain a similar result which shows that resilience is positively correlated with life satisfaction. In other words, it means that high resilience will lead to high life satisfaction among individuals and vice versa. In the meantime, no studies related to this research field show dissimilar results from one another.

2.3 Self-Esteem and Life Satisfaction

Szcześniak et al. (2021) stated that self-esteem is a subjective yet complex construct that explains an individual's self-acceptance and self-emotional evaluation. In the research conducted by Szcześniak et al. (2021), it was stated that many studies stated the relationship between life satisfaction and self-esteem to be direct. In this study, it was proven that self-esteem was closely related to self-presentation, which highly affects self-esteem where individuals who tend to be more involved in self-presentation commonly have a better sense of exploring their identities as well as strengthening their own images, which directly affects the individual's self-esteem. The author also stated that self-promotion and self-depreciation were also a potential mediator between an individual's life satisfaction and self-esteem, as it was found in this study that individuals with self-promoting behaviors can be found to be having a better sense of self-esteem. In contrast, individuals with self-depreciation tend to feel more negative about themselves.

Besides, research conducted by Ashok Kumar Patel et al. (2018) stated that major personality factors played a vital role as important determinants of life satisfaction. Moreover, the research stated that self-esteem plays an essential role as a booster of life satisfaction. It was found that individuals with high self-esteem have been proven to have higher levels of life satisfaction. However, in this study, there has been a difference in findings compared to past

studies. In this research, the author stated that the gender effect was not significant towards self-esteem but was found significant with life satisfaction.

Furthermore, based on research conducted by Moksnes and Espnes (2013), it was stated that there was a strong positive correlation between self-esteem and life satisfaction, with 24% of the variance in life satisfaction conducted in the research. Besides, the research also stated that life satisfaction is observed to be an important construct that assesses the individual's overall appraisal of the quality of their lives. Other than that, it was also stated by the author that there has been a difference between self-esteem and gender, and it has been found that boys usually tend to have higher self-esteem than girls during adolescence.

Moreover, based on a study conducted by Kong and You (2011), the targeted participants for the research were 389 undergraduates from two universities in China whose ages ranged from 17 to 35 years of age which was aligned with the criteria of young adults. The research used the SWLS (Satisfaction with Life Scale) and the RSES (Rosenberg Self-Esteem Scale) as their main scales in conducting the research, which was found useful and aligned with our research. However, the study by Kong and You (2011) had an additional factor which was social support and elaborated on how social support was able to affect self-esteem. The research showed that individuals with low levels of social support were more likely to have a lower sense of self-esteem, resulting in a decrease in their life satisfaction which indirectly shows that self-esteem positively predicts life satisfaction.

Lastly, in research conducted by Arslan (2019), the author included social exclusion in their research, which was quite interesting as the author was able to relate it with self-esteem, resilience, and life satisfaction. The author explained about the primary function of self-esteem, which was to protect individuals against social exclusion, while also stating that self-esteem might be playing a mediating role between life satisfaction and social exclusion. Moreover, the

author also stated that individuals with a higher level of self-esteem reportedly had higher levels of life satisfaction, which was consistent with other past studies.

2.4 Theoretical Framework

2.4.1 Stress and Coping Theory

Stress and coping theory was developed by Lazarus and Folkman in 1984. This theory was introduced that people continually evaluate the stimuli in their surroundings. When stimuli are rated as dangerous, difficult, or hurtful (i.e., stressors), the appraisal process produces emotions. The following discomfort generates coping mechanisms to control feelings or attempts to deal with the stressor directly. The results of coping strategies—a shift in the interaction between a person and their environment are assessed again and classified as positive, unpleasant, or unresolved. Positive feelings are evoked when stresses are successfully handled, whereas distressing or undesirable outcomes cause the person to explore more coping mechanisms to successfully resolve the source of stress (Biggs et al., 2017).

It is expected that current university students frequently face various stress in academics or the community. A study by Salam et al. (2013) reported a high level of perceived stress between 14.3% to 56% of medical undergraduates in Malaysia. This may be justified by the numerous pressures that university students experience, such as the heavy workload, massive study material, frequent quizzes and exams, and concern about their future (Goppert & Pfost, 2021). The multiple negative consequences that might accompany or co-occur with encounters of high stress make reports of increasing stress troublesome. For instance, lower academic performance, restlessness, poorer academic contentment, and increased substance abuse (i.e., alcohol, drugs, cigarettes). The poor outcomes mentioned are some factors contributing to the low level of life satisfaction. Many studies have demonstrated that variable stress is negatively related to life satisfaction (Böke et al., 2019).

In other words, it shows that their life satisfaction will increase with a low stress level among individuals.

Academic life often involves stress, and students frequently look for methods to lessen its impact, which is where coping takes place (Böke et al., 2019). According to the theory by Lazarus and Folkman (1984), the coping method has been differentiated into two categories: problem-focused and emotion-focused coping. Simply put, people will either cope with the problem by improving the situation triggering the discomfort or by controlling their emotional states to the challenge (Stanisławski, 2019). Looking into emotion-focused coping strategy, it appears that resilience, the ability to adapt positively despite trauma or adversity, would be a practical and positive way to overcome stressful situations (Tomás et al., 2012). Building psychological resilience among university students can alleviate the negative emotions of stress, help them achieve academic success, and enhance their sense of wellbeing and ability to handle challenging situations (Wu et al., 2020). Another statement by Milas et al. (2021) also mentioned that Lazarus and Folkman's stress and coping theory had made an important prediction that the correlation between stress and life satisfaction should be moderated by individual variability in coping behavior. The ability to remain resilient is vital to achieving life satisfaction and mental health for students. A person's satisfaction with life can be improved by building resilience (Md Khalid, 2021). Hence, successfully coping with stress by lifting one’s resilience will decrease an individual's stress level and directly enhance their life satisfaction and vice versa.

2.4.2 Sociometer Theory

The Sociometer theory is a theory of self-esteem developed by Mark Leary who proposed that self-esteem is a sociometer for interpersonal relationships, this theory was later expanded by Kirkpatrick and Ellis. Based on the theory, self-esteem is a measure of the social relation and interaction effectiveness of an individual (Leary, 2005). The theory suggests that

individuals usually seek higher self-esteem due to its ability to facilitate the attainment of goals while also ensuring that individuals with high self-esteem will persevere which will perform better after failure compared to individuals with low self-esteem. It was also found that young individuals who has higher self-esteem had shown higher life satisfaction overall while also showing better mental and physical health (Freire & Ferreira, 2019).

Based on another research by Leary and Baumeister (2000), which stated that based on the sociometer theory, an individual's self-esteem serves to monitor an individual's relational evaluation and to which degree that other individuals regard their relationships with them to be valuable, close, and important. It is stated by the researcher that self-esteem is a sociometer which monitors an individual's interpersonal relationship's quality, and it is essential to motivate the individual to maintain the level of self-esteem which is acceptable to other individuals. Moreover, high self-esteem also reflects an individual's perception of their value in groups or close relationships which can be highly relatable to this research as university students usually tend to have their own peer groups and close friends which set a standard for the student to maintain themselves at the minimum level of acceptance by their peers and friends. It was also stated by the researcher that past studies have shown how an individual's self-esteem is related to their life satisfaction and is more closely related to how far an individual is from their undesired self than how close an individual thinks they are to their ideal self.

Based on research conducted by Cameron and Stinson (2017), the Sociometer theory which was the most well-validated was proven to be very responsive towards the state of self-esteem towards social experiences of an individual which are such as acceptance and rejection. The researcher also stated that research supports the claim that individuals will alter their social motivation in order to behave in response towards acceptance or rejection. The author stated that self-esteem functions mostly outside of an individual's known conscious state of

awareness and control. It was also found that the self-esteem system of an individual tends to be more responsive to rejection than acceptance. Lastly, the author stated that individuals tend to accept other individuals who possess the same traits as they will be valued for social acceptance and linking to higher self-esteem. It was also stated by Chen et al, (2016) that self -esteem and life satisfaction represent an individual's evaluation. Self-esteem is more towards an individual's evaluation of himself or herself and life satisfaction involves an individual's evaluation of their lives. It was also found that high self-esteem was one of the strongest predictors of life satisfaction.

2.5 Conceptual Framework

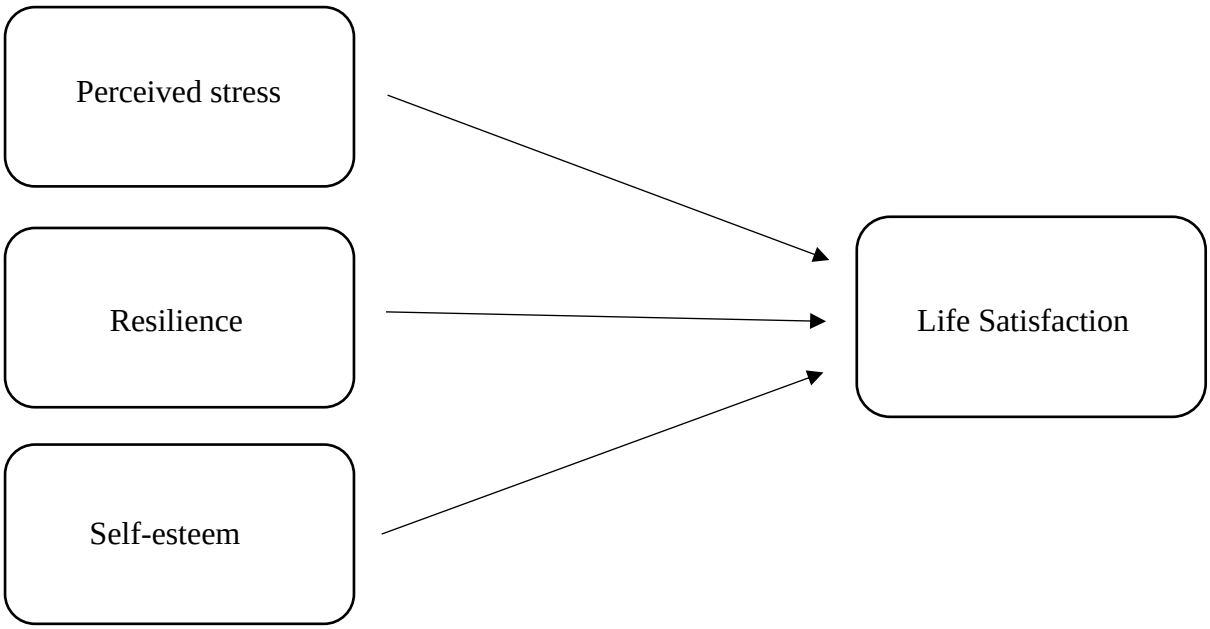


Figure 1 *The conceptual framework of "Perceived stress, resilience, and self-esteem as predictors of life satisfaction among university students in Malaysia".*

This study mainly focused on the predictive effect of perceived stress, resilience, and self-esteem on life satisfaction among undergraduates in Malaysia. The predictors for this study are perceived stress, resilience, and self-esteem whereas the outcome variable is life satisfaction.

Chapter III

Methodology

3.1 Research Design

A quantitative, descriptive, and cross-sectional study was carried out to examine the predictive effects of perceived stress, resilience, and self-esteem on university students in Malaysia. A descriptive approach allows the researcher to examine and describe the distribution of any number of variables without considering any causation or other theories (Aggarwal & Ranganathan, 2019). A cross-sectional study can be categorized as a type of observational research. The researchers measure both the study's outcome and each participant's exposure simultaneously in a cross-sectional study. In general, cross-sectional studies are relatively inexpensive and can be conducted very quickly (Setia, 2016; Wang & Cheng, 2020).

A questionnaire is frequently used in most cross-sectional studies as it is more convenient to reach a significant portion of the target population (Wang & Cheng, 2020). In the current research, the survey method was used to collect data from the targeted participants. The survey approach allows for a wide range of subject recruitment, data gathering, and instrumentation strategies (Ponto, 2015). In particular, a self-reported survey was utilized since there is little effort or cost involved in administering the test to an extensive sample of people quickly (Demetriou et al., 2015). There are also a variety of existing questionnaires that are often freely available and can be adapted for use. Besides that, the analysis process of the collected data is more straightforward than the interview method, in which recording, and transcription are needed before analysis (Young, 2015).

3.2 Research Sample

3.2.1 Sampling Method

The number of participants was recruited through two types of sampling methods which are purposive sampling and snowball sampling. Firstly, the purposive sampling approach is the most efficient non-probability sampling measure and is commonly applied in ethnobotany (Tongco, 2007). It is also named judgement sampling, which involves selecting participants according to their personal attributes. This consists of identifying and choosing individuals or groups of knowledgeable and skilled participants about an interesting topic (Etikan, 2016). There are prerequisites individuals must fulfill in order to engage in this research, therefore not every individual has the same opportunity to do so. For instance, the characteristics of the participants were analyzed to see whether they meet the inclusion criteria of this study. Those who met the inclusion criteria were recruited in this study. It also mentions that the flexibility of the purposive sampling method allows the researchers to acquire data more efficiently and affordably. Besides, this purposive sampling method is beneficial since it requires researchers to visit several locations and provides a broader range of nonprobability sampling options to choose from (Thomas, 2022).

Besides, the snowball sampling method was also applied to recruit participants in this study. This method is considered as a convenience sampling method (Naderifar et al., 2017) which can be defined as creating a source of participants for a study by recommendations from the initially selected participants who share similar and specific traits of the research area (Course & Lowe, 2018). This method is beneficial to tackle the limitation of limited capability to recruit university students with qualifying criteria from different locations. Hence, initial selected participants were allowed to invite their friend with similar characteristics to participate in this study in order to reach the targeted sample size promptly. For instance, they were allowed to distribute the survey to their friends who are also eligible to take part in this study. Additionally, the snowball sampling approach not only takes minimal time but also gives the researchers a chance to interact with the participants more

effectively since they are familiar with the initial sample, and the initial sample is connected to the researchers (Naderifar et al., 2017).

As a result, combing these two sampling techniques, purposive sampling, and snowball sampling, were beneficial to researchers as they have saved a lot of time and expenses in gathering data. In addition, it also helped the researchers approach more qualified participants from different locations, allowing the targeted number of participants to be reached in a short period.

3.2.2 Research Location

The targeted participants were university students from either public or private university in Malaysia. Hence, university students who are studying in any of the universities from different states in Malaysia were eligible to participate in this study.

3.2.3 Ethical Approval

Before proceeding to the stage of data collection, ethical permission has been provided by the authority from UTAR. The permission provided allows the implementation of research to be moving forward to the next process which is the collection of responses. The reference number was U/SERC/02/2023 (see Appendix A, p. 65).

3.3 Sample Size

The software, G*Power version 3.1.9.4 was used to determine the size of sample. It is known as a common power measurement software utilized in majority of research projects. An effect size is affected by effect sizes of Pearson's *r* which are .10, .30, and .50 as interpretations of small, medium, and large effect sizes respectively. The size of the sample was produced according to the impact size of .31, statistical power value of .95 and an alpha error probability level of .05 with three predictors (see Appendix B, p. 69). 60 participants has been calculated to be the lowest limit on the number of participants to be recruited in this study (see Appendix B, p. 69).

3.4 Data Collection Procedure

3.4.1 Participants

The targeted participants were university students in Malaysia with the set inclusion and exclusion criteria. First, participants must be between the ages of 19 and 24 years old, regardless of gender, and they must be a university student who currently pursuing their study in Malaysia. The age categories is a common age range used by past studies (Jovanović & Joshanloo, 2021). Moving on, the participants need to be studying in either public or private universities. As for the exclusion criteria, students who are studying in A-levels, matriculation, sixth-form, fresh graduates and working adults are excluded.

3.4.2 Procedure of Obtaining Consent

Social media channels like MS teams, Messenger, WhatsApp and so on, were used to disseminate Qualtrics-created survey to participants. The initial page of the survey have inserted the study's subject, objective, and informed consent. The survey's terms and conditions, which state that participants will remain private, and their answers will be kept secret, are explained in the informed consent procedure. Participants were given the option to either accept or refuse and resign from the survey.

3.4.3 Procedure of Data Collection

After providing informed consent, participants were prompted to the next page of the survey which requires them to fill in their information such as university name and educational level. The participants were accessed to the questionnaire and proceeded to answer the questions. A Qualtrics-made survey was received by participants via online networks such as MS Team, Messenger, WhatsApp, and so on. Once number of targeted responses has achieved, the questionnaire was closed, and the data cleaning process began to remove any responses which did not meet our inclusion criteria or seem to be incomplete responses. Final data was analyzed using the SPSS software.

3.4.4 Pilot Study

A pilot study provides data for establishing the sample size as well as for evaluating all other components of the primary study. It also helps to reducing the need for additional work from the researchers and participants as well as the waste of research resources (In, 2017). Next, it was discovered that a survey research pilot project needs at least 30 participants (Browne, 1995; Conroy, 2015). Before proceeding to the main study, pilot research with a number of 30 participants was carried out. Survey questionnaire was generated using Qualtrics and distributed to university students in Malaysia. Then, the reliability of the instruments used to measure each variable was examined once sufficient number of responses were gathered.

3.4.5 Instrument's Reliability for Variables in the Pilot Study

According to the fundamental rule of thumb for reliability, a Cronbach's alpha of .70 or higher is regarded as acceptable, .80 or higher is good, and.90 or higher is viewed as excellent reliability (*Cronbach's alpha*, 2023). However, according to Raharjanti et al. (2022), Cronbach's alpha value between .06 to .08 is considered acceptable. As shown in Table, the reliability for self-esteem and satisfaction with life shows good reliability in both pilot study and actual study. On the basis of the rule of thumb of reliability, both studies' reliability for perceived stress is deemed acceptable, as well as the reliability for resilience based on Raharjanti et al. (2022).

Table 3.1

Instrument's Reliability in the study of Pilot (n=30) and Actual (n=99)

Instruments	**Number of Questions**	**Cronbach's Alpha**	
		Pilot	**Actual**
Perceived Stress Scale (PSS-10)	10	.765	.705

Brief Resilience Scale (BRS)	5	.668	.633
Rosenberg Self-Esteem Scale (RSES)	10	.862	.816
Satisfaction with Life Scale (SWLS)	5	.831	.835

3.5 Instrumentation

The questionnaire had four sections and required the participants to finish each section within 15 to 20 minutes. The first part required the participants to fill in their demographic data such as age, gender, ethnicity, current educational institution, course they are taking, as well as the current year and semester. Then, the following part consisted of the Perceived Stress Scale (PSS), Brief Resilience Scale (BRS), Rosenberg Self-Esteem Scale (RSES), and Satisfaction with Life Scale (SWLS).

3.5.1 Perceived Stress Scale (PSS-10)

The Perceived Stress Scale was developed by Cohen et al. (1983). It is mainly used to measure the perceived stress level of university students. It has 10 questions on a 5-point Likert measure, with 0 meaning "never" and 4 meaning "very often". There are 4 out of the 10 items which need to be reversed before scoring, which are item 4, 5, 7, and 8. These reversed items could be calculated in the following way. For instance, 0 = 4, 1 = 3, 2 = 2, 3 = 1, and 4 = 0. By asking about one's thoughts and emotions from the preceding month, this scale can be used to gauge one's degree of stress. Lastly, the score will be added up and the range of the score is from 0 to 40. Low stress is defined as a score between 0 and 13, intermediate stress as a score between 14 and 26, and severe stress as a score between 27 and 40. Simply put, higher scores indicate a greater tendency of perceived stress (Cohen et. al, 1988). With a Cronbach's alpha of .842 and a convergent validity range of .289 to .608, this scale has demonstrated good internal consistency, reliability and validity of the scale (Maroufizadeh et al., 2018).

3.5.2 Brief Resilience Scale (BRS)

The Brief Resilience Scale was created by Smith et al. (2008). This scale is frequently used to gauge a person's degree of resilience by evaluating how well they can bounce back or recoup from stressful situations. It comprises six items with a Likert measure of 1 (Strongly disagree) to 5 (Strongly agree). The reversed score for the second, fourth, and sixth items and the score for the remaining items were added together to get the final score. The final score is calculated by dividing the summed score by the number of responded questions. The overall score will vary from 6 to 30. The values are then interpreted as follows: A low degree of resilience is between 1.00 and 2.99, a medium level is between 1.00 and 4.30, and a high degree of resilience is between 4.31 and 5.00 (The brief resilience scale, 2021). Higher resilience is indicated by the higher mean result. The reliability of the scale is good, with a Cronbach's alpha between .80 and .91 (Smith et al., 2008). The AVE convergent validity for this scale is 0.44 (Kyriazos et al., 2018).

3.5.3 Rosenberg Self-Esteem Scale (RSES)

Morris Rosenberg introduced Rosenberg Self-Esteem Scale (RSES) in 1965. It is frequently utilized in different areas such as psychology, mental well-being and so on (Tinakon & Nahathai, 2012). It is a 10-item scale that assesses both optimistic and pessimistic self-perceptions in order to gauge overall self-worth. It involves 10 questions with a 4-point Likert Scale (1= strongly agree, 2= agree, 3= disagree, 4= strongly disagree), and it is used to measure one’s self-esteem. Items 2, 5, 6, 8, and 9 have to be reversed before proceeding to scoring. For example, strongly disagree will be assigned one point, and strongly agree will be given four points. The total score ranges from 10 to 40; a larger value corresponds to greater self-esteem (Rosenberg, M. 1965). The scale’s reliability shows .809, while for the convergent validity, it shows .481 (Galanou et al., 2014).

3.5.4 Satisfaction with Life Scale (SWLS)

Satisfaction with Life Scale (SWLS) is established by Ed Dineris and colleagues in 1985. It is intended to measure one's overall cognitive assessments and life satisfaction. It consists of 5 items with a 7-point Likert Scale (1= strongly disagree, 2= disagree, 3= slightly disagree, 4= neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree). There is no reverse item for this scale. Each item is given a value as a score, and the overall score can be anywhere from 5 to 35. The SWLS scores are as follows: 5 to 9 indicates extremely dissatisfied, 10 to 14 indicates dissatisfied, 15 to 19 indicates slightly dissatisfied, 20 indicates neutral, 21 to 25 indicates slightly satisfied, 26 to 30 indicates satisfied, and 31 to 35 indicates extremely satisfied. In short, a higher score refers to higher satisfaction (Diener et al., 1985). The reliability has been reported using the Cronbach alpha index of 0.84, and the convergent validity ranging from .41 to .61 (Galanakis et al., 2017).

3.6 Data Cleaning

The researchers originally collected an overall of 136 responses. There are 30 responses from the pilot study were deleted. Furthermore, there was one response failed to meet the inclusion criteria which included respondent who have completed their study. Next, there were a total of five incomplete responses has been detected and procced to be eliminated from the data. At last, there was one univariate outlier has been found and removed. Therefore, these 37 responses were excluded from this study. At last, the final sample size for this study was 99 responses.

3.7 Data Analysis

Following the completion of the data gathering process, IBM SPSS version 23 was applied for evaluating the data. First and foremost, data cleaning was carried out to ensure there is no missing data, incomplete responses, or responses that failed to meet the inclusion criteria. Next, descriptive statistic of the demographic data were calculated. It is a statistical study that summarizes the raw data and explain the connection between variables in a sample

or population (Kaur et al., 2018). The demographic data of the respondents' mean, and standard deviation were also calculated.

Moving on, Multiple Linear Regression (MLR) was selected to analyze the predictive impact between perceived stress, resilience, self-esteem, and life satisfaction among university students in Malaysia for present research. Each variable's premise of normality was checked before the MLR analysis to make sure the outcome were distributed normally. MLR analysis was conducted once the assumption of normality test found no violation.

3.8 Assumption of Normality

Several indicators have been used to test the normality such as histogram, skewness and kurtosis, Quantile-Quantile (Q-Q) plot, and the Kolmogorov-Smirnov (K-S) test. A histogram is a graphical tool for identifying the pattern of a data set's probability distribution. The data can be considered regularly distributed if the histogram resembles a bell (Barton & Peat, 2014). Skewness, or more precisely, the deficiency of symmetry of the normal distribution, is a metric of symmetry. Kurtosis is a metric of a distribution’s peakness (Gupta et al., 2019). Skewness and kurtosis are both regarded as acceptable between ±2.0, while considered as desirable if the values are between ±1.0 (George & Mallery, 2018).

In addition, a Q-Q plot, is a scatterplot that contrast two groups of quantiles which is observed and predicted, and it is frequently utilized in statistics (Gupta et al., 2019). With a properly distributed set of data, the points will fall along a straight diagonal line and deviate if the data are not normally distributed (*ArcMap*, n.d.). Lastly, two well-known tests for assessing normality are the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk (S-W) test. Nonetheless, the K-S test was used for this study's normality assessment since it performs better with sample sizes of 50 or higher (Gupta et al., 2019). Korstanje (2020) claims that the distribution was deemed normal when the p-value was larger than.05.

3.9 Multiple Linear Regression (MLR) Assumptions

The assumptions for MLR consists of multivariate outliers, linearity of residual, normality of residual, homoscedasticity, independence of errors, and multicollinearity.

In this research, the multivariate outliers were identified using the Mahalanobis distance, Cook's distance, and the centered leverage value. The Mahalanobis distance calculates how far away from a distribution's mean an observation is (Ghorbani, 2019). The value for Mahalanobis distance should be within 15 for a sample size of approximately 100 (Barnett & Lewis, 1978). When performing a least squares analysis in statistics, the Cook's distance was implemented to assess the impact of a data point (Salvatores et al., 2013). The case could potentially be viewed as the outlier if the Cook's distance value is higher than the value, one (Cook and Weisberg, 1982). Leverage is a concept that looks at the relationship between actual and expected values of the outcome variable, also known as "hat values" (Salvatores et al., 2013). Leverage value ought to be lower than the result of this calculation $\frac{2(p+1)}{n}$ (Barrett & Gray, 1997).

The next assumptions are homoscedasticity, linearity, and normality of residual. Osborne and Waters (2002) assert that if the scatterplots are distributed randomly and equally, indicating that the residual's normality, linearity, and homoscedasticity are not violated. Low correlation between independent variables is necessary to satisfy the third assumption, multicollinearity. Tolerance and variance inflation factor (VIF) are being utilized on the assessment of multicollinearity and they should be larger than .1 and less than 10, correspondingly (*Variance inflation factor*, 2022).

In addition, the last assumption, independence of errors, highlights the need for separate and uncorrelated residual terms. The premise was evaluated using Durbin-Watson to establish the existence of association among the residuals (Jain et al., 2018; Hadi & Chatterjee, 2015). Flatt and Jacobs (2019) suggest that a number that is close to 2 is desirable. The assumption will be broken if the value is larger than three or less than one.

Chapter IV

Result

Descriptive Statistics

The Table 4.1 (see appendix D, p.79) has demonstrated there was a total of 99 university students has been chosen as the final sample size of the present research. There are a summation of 99 participants, whose ages varied from 19 to 24 years old, took part in this study (M = 21.46, SD = 1.082). Regarding on the gender, there were approximately 42.4% of the respondents were males (n = 42), and the other 57.6% of the respondents were female (n = 57). There were 15 sample size variation between the two genders, males and females. Besides, there are a majority of 97% of respondents are from the Chinese ethnicity (n = 96) while the rest of the respondents are from the other ethnicities such as Indian (n = 2), and others (n = 1). Furthermore, regarding on the religion of the 99 respondents, there were roughly 82.8% of respondents were Buddhists (n = 82), 1% were Hinduism (n = 2), 14.1% were Christian (n = 14) and 2% were from other religion (n = 2). Additional demographic details about the respondents including the current education level, year of study, course of study and the name of educational institution were presented in the Appendix D.

Additionally, with a sample size of 99, the means and the standard deviations of the independent variables (perceived stress, brief resilience, self-esteem) and the dependent variable (life satisfaction) were also computed (see Appendix D, Table 4.2, p.80).

Assumption of Normality

Univariate Outliers

Univariate outliers were identified using boxplot created in this current study. There was one case which is considered as univariate outlier has been removed from the initial sample size (see Appendix G, p. 83).

Skewness and Kurtosis

According to George and Mallery (2018), it demonstrated that both skewness and kurtosis with values between ±2.0 are viewed as acceptable and between ±1.0 is regarded as good for the majority of psychological uses. By looking at the Table 4.3 (see Appendix E, p. 81), there are clearly no violations of skewness and kurtosis were shown according to any of the variables. Hence, both skewness and kurtosis have fulfilled the requirement for normality.

Histogram

Each histogram for the four variables were being visually assessed and it shows that all four histogram is in a shape of bell form and symmetrically normal curve. Therefore, it can be determined as normally distributed and demonstrating a great normality (see Appendix F, p. 85).

Q-Q Plot

Q-Q plot has been created for every variable and each of them were being visually evaluated. It is evident that the majority of the data were collected in close proximity to the diagonal line, indicating good normality for each of the variables (see Appendix I, p. 87).

Kolmogorov-Smirnov (K-S) test

According to Korstanje (2020), it describes the distribution was considered as normal with the *p*-value of greater than .05, while on the other hand, distribution was considered as non-normal with the *p*-value of smaller than .05. The self-esteem variable was the only variable found to have a normally distributed distribution in Table 4.4 (see Appendix E, p. 81), while the other three variables were not normally distributed. This also suggests that these three variables, perceived stress, resilience, and life satisfaction, violate this K-S test.

Conclusion of Assumption of Normality

Apart from the K-S test, the evidence of normality reveal no deviations from the standard in skewness and kurtosis, Q-Q plot, and histogram. On the other hand, there is only one variable, self-esteem was found to have no violation while other three variables such as

perceived stress, resilience and life satisfaction show violation in the result of K-S test. However, Ghasemi and Zahediasl (2012) has found out that a drawback of the K-S test is that it shows a great sensitivity to extreme value which indicated that it has a low power and not recommended to be taken into account for normality determination.

Multiple Linear Regression (MLR) Assumptions

Variables

Two or more independent factors may be used in the MLR analysis, and they may be either continuous or discrete constructs while the dependent variable must be in continuous form (*What is multiple linear regression*, 2021). Since all of the variable in this research were continuous variable, it can be concluded that the assumption was fulfilled.

Multivariate outliers

After performing data analysis in SPSS, there are five potential multivariate outliers has been determined shown in Table 4.5 (see Appendix F, p. 82). Mahalanobis distance, the Cook's distance and the Centered Leverage Value were utilized to investigate whether they are the outliers. As stated by Barnett and Lewis (1978), a sample size of approximately 100 individuals should not be more than Mahalanobis distance of 15. Furthermore, Cook's distance value was being proposed to not exceed the value of one which it could be categorized as unpleasant (Cook and Weisberg,1982). Moreover, the centered leverage value has been determined by using the algorithm of $\frac{2(p+1)}{n}$ resulting in a value of .08. According to the Table 4.5, all five possible multivariate outliers fell within the threshold of the three residual statistics, indicating that there was not enough evidence to remove these five potential outliers in the data.

Multicollinearity

In MLR analysis, multicollinearity was reviewed to make sure that there won't be any high association between the predictors which could cause difficulty in developing and

comprehending the regression model (Zach, 2020). Hence, tolerance and variance inflation factor has been used to measure the multicollinearity in this study. According to *Variance inflation factor* (2022), the tolerance value should be greater than .1 while the VIF value should be lower than 10 to achieve no multicollinearity. By looking at the Table 4.6 (see Appendix F, p. 82), there are no variables breached the threshold in either of the tolerance or VIF metrics which indicate that there is no multicollinearity in this study.

Independent Errors

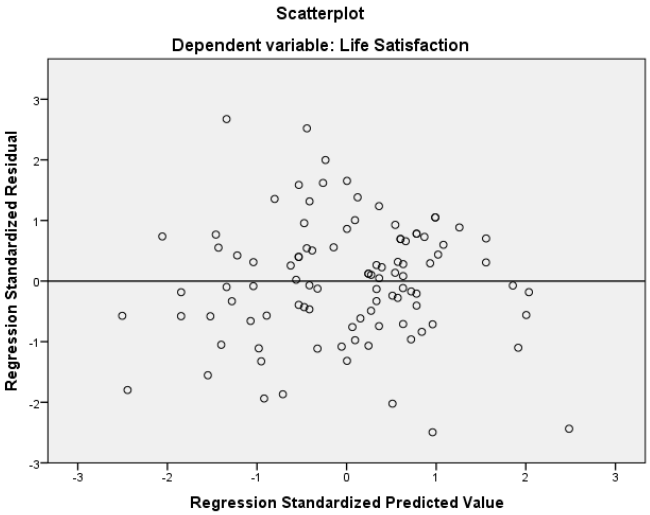
Independence of error can be determined by the usage of Durbin-Watson statistic (*Durbin Watson statistic*, 2022). According to Flat and Jacobs (2019), the value generated by Durbin-Watson test should ideally be near to 2. The assumption is invalidated by values higher than three or less than one. By referring to the Table 4.7 (see Appendix F, p. 82), it shows that the value generated was closed to the value of 2 which demonstrated that the assumption has been met.

Linearity of Residual, Normality of Residual, and Homoscedasticity

Figure 4.1 has demonstrated a scatterplot which shows that the residuals were equally and arbitrarily. Therefore, the linearity of residual, normality of residual and homoscedasticity can be assumed that there was no violation towards the assumption of MLR.

Figure 4.1

Scatterplot of Standardized Predicted Value and Standard Residual



Summary of Assumption for Multiple Linear Regression (MLR)

Different test has been done to examine the assumption for MLR. All the assumption for MLR analysis has been met and it shows no violation.

Multiple Linear Regression (MLR) Analysis

MLR was applied to determine is there any predictive effect by the variables of perceived stress, resilience and self-esteem on the life satisfaction among university students studying in Malaysia. According to the Table 4.8, it demonstrated the finding was statistically significance, F (3, 95) = 12.230, $p < .001$. Additionally, the perceived stress, resilience, and self-esteem variable described an amount of 25.6% of the variations in life satisfaction (see Table 4.8). Moreover, it was also found that self-esteem (β = .408, p = .001) were significantly predict the life satisfaction. On the other hand, perceived stress (β = -.149, p = .180) and resilience (β = .046, p = .660) were found to be not significantly predict the life satisfaction. Furthermore, the findings of the study also propose that self-esteem (β = .408) were positively anticipated the life satisfaction (see Table 4.9). In conclusion, referring to the Table 4.10, it is clear from the study's findings that while the H_1 and H_2 were not validated, the H_3 was.

Table 4.8

Result of Regression Model

	df	F	Sig.	Adjusted R^2
Regression	3	12.230	.000	.256
Residual	95			
Total	98			

Note: Dependent variable = Life satisfaction. Independent variables = Perceived Stress, Resilience and Self-esteem.

Table 4.9

Multiple Linear Regression Coefficients Table

Model	Variables	Std. β	*t*	Sig.
1	(Constant)		1.424	.158
	Perceived Stress	-.149	-1.352	.180
	Resilience	.046	.441	.660
	Self-Esteem	.408	3.892	.000

Note. Dependent variable = Life Satisfaction

Table 4.10

Summary Results

	Hypotheses	Decision
H_1:	An individual's perceived stress negatively predicts life satisfaction among university students in Malaysia.	Not Supported
H_2:	An individual's resilience positively predicts the life satisfaction among university students in Malaysia.	Not Supported
H_3:	An individual's self-esteem positively predicts the life satisfaction among university students in Malaysia.	Supported

Chapter V

Discussion

H1: An individual's perceived stress negatively predicts life satisfaction among university students in Malaysia.

The study's results revealed that people with high levels of perceived stress did not have reduced levels of life satisfaction, contradicting the proposed hypothesis. The finding was inconsistent with past studies by Lee et al. (2016) which stated that perceived stress would negatively predict life satisfaction. Other than that, one of the components influencing the degree of perceived stress and satisfaction with life is self-efficacy. Self-efficacy and life satisfaction have a strong relationship and can be understood as when an individual has high self-efficacy, it would cause them to be more efficient in overcoming stressful situations as they have a desirable attitude and would try their very best to achieve their goals (Poorbaferani et al., 2018). However, this study was not able to prove that low perceived stress could affect life satisfaction.

Moreover, another factor that might have affected this hypothesis would be eustress. Eustress refers to stress that leads to a positive response which is the opposite of normal stress and can be referred to be a type of beneficial stress (Lu et al., 2021). This might be one of the causes that affected the results of the study which led to the hypothesis being unsupported. Besides that, another study by O'Sullivan (2011) stated that as stress had a positive effect on individuals and can boost their life satisfaction in the long run such as when a student is stressed for their exams which causes them to study more and, in the end, leads to good results which overall increases life satisfaction.

H2: An individual's resilience positively predicts the life satisfaction among university students in Malaysia.

This hypothesis was not supported by the study as the relationship between resilience and life satisfaction was found to be insignificant. One of the reasons that could support this result is when resilience was used as a moderator, it's relationship with life satisfaction would turn out to be non-significant (Rossi et al., 2007). Other than that, another possibility for resilience to become insignificant when related to life satisfaction is because of situations where resilience has been misused by individuals which led to an overall decrease in life satisfaction. This can be proven by research done by Mahdiani and Ungar (2021) which stated that being too resilient might cause an individual to be overly confident in doing some tasks as they have past experiences with similar situations and have been able to cope with the stress that was caused by the task and successfully completed it. However, when the individual faces the same task and is overly confident about it which caused them to fail when trying to complete the task, it would cause their life satisfaction to plummet. Other than that, another reason that might have been the cause of the dissimilar findings based on this hypothesis is that due to the large difference in sample size in this study compared to past studies (Shi et al., 2015).

H3: An individual's self-esteem positively predicts the life satisfaction among university students in Malaysia.

This hypothesis has been supported by the study as the relationship of self-esteem and life satisfaction has been found to be significant based on this study. It was found that self-esteem can be related with self-promotion and provides the individual with the chance to emphasize their own abilities. This would cause their life satisfaction to increase positively with the individual's level of self-esteem (Szcześniak et al., 2021). Moreover, self-esteem was found to be an enhancer of life satisfaction which correlates higher self-esteem with higher life satisfaction. Other than that, self-esteem and life satisfaction are related to an individual's positive feelings, and it is expected that individuals who have a higher self-

esteem to have an overall higher satisfaction with life (Patel et al., 2022). Arshad et al. (2015) also stated that self-esteem had a positive impact on the student's academic performance which would lead to an increase in life satisfaction. Self-esteem was related to social support, university students with social support were showing signs of higher self-esteem which related to a higher life-satisfaction (Kong & You, 2013). Social support such as support from parents and friend groups had a huge effect on the self-esteem of an individual as a study by Hoffman et al. (1988) found that individuals with social support when faced with troubles in their life were able to maintain a higher level of self-esteem compared to individuals who did not have any form of social support.

Theoretical Implication

The Sociometer theory is employed in this research to investigate how perceived stress, resilience and self-esteem predict life satisfaction among university students. The results of this study support the theory which self-esteem significantly predict life satisfaction. This provides an explanation on how perceived stress, self-esteem and resilience can affect life satisfaction. This study may be able to be used as a starting point for future researchers who are aiming to use the Sociometer theory in their studies, as there are limited number of studies that concentrate on these predictors and how they affect life satisfaction of university students in Malaysia. All in all, this study may provide some worthwhile contributions to society by adding fresh knowledge to the areas of research that are connected to this subject.

Practical Implication

The results of this research have demonstrated the importance of perceived stress, resilience, and self-esteem in influencing life satisfaction among university students in Malaysia. The findings of this study may help enhance and improve the public knowledge regarding this topic and may provide new insights towards different individuals and parties

which include governments, university administrates, workers who work in the respective field such as lecturers and counsellors, parents, and university students.

In the governmental context, the Malaysian government can work together with the Malaysian Ministry of Higher education to modify and improve the syllabus and overall academic system. This can be done by introducing a new syllabus that is less stressful towards university students by emphasizing on content-based learning instead of outcome-based learning which requires students to take part in interactive activities during class instead of fully relying on exams to determine the grade of a student (Sarı et al., 2015).

Moreover, the university's administration can provide counselling services for students who are facing stressful situations during their time in university. Besides that, with the finding that self-esteem predicts the life satisfaction of an individual, the university administration can prepare talks or therapy sessions for students who have been found to have low self-esteem and provide them a chance to seek help and support towards university counsellors and obtain assistance from them to improve their overall life satisfaction through the improvement of their self-esteem.

Limitations

There are several limitations to this study that need to be acknowledged, starting with the sample size. The study had a total of 99 participants after data cleaning and filtering, which may not be representative of the entire university student population in Malaysia. Due to the small sample size, the actual effects of the statistical analysis may be impacted and may not be applicable to the wider population.

Another limitation of the study is the sampling method used, which was purposive sampling from non-probability sampling methods. This resulted in an unequal distribution of ethnicities, with most participants being Chinese (96%). This disproportionate representation

could lead to bias and limit the generalizability of the results to university students of different races and ethnicities in Malaysia.

Moreover, the third limitation of this study is the self-administered online questionnaire. This is caused by social desirability bias as it is known for an individual to negatively report socially unfavorable behavior and positively report socially desirable behaviors (Larson, 2019). Therefore, respondents may tend to be biased when answering the questionnaire as they might choose answers that are more favorable to them as they would like to perform better. This would result in the inaccuracy of the self-reported data, which in the end might affect the results of the study.

Recommendations

To overcome the first limitation which is a small sample size, the recommendation for future researchers is to provide encouragement for participants such as gifts and cash rewards or vouchers to attract more participants and increase their motivation to complete the questionnaire.

Besides that, to reduce the bias in the sampling method, it is recommended that alternative methods of sampling, namely stratified random sampling, be used to acquire participants from similar populations that can accurately reflect the community. By means of the use of stratified random sampling, the whole population is divided into a homogeneous strata or subgroup based on a demographic factor which in this case could be ethnicity and education (Elfil & Negida, 2017). Based on this, Future scholars can categorize target groups based on their racial backgrounds and education. This will solve the issue of homogeneity and a less biased and more accurate selection of targeted population will be obtained.

Moving on to the bias for social desirability, this limitation is feasible to improve by applying techniques such as ensuring the wording, and prefacing of questions clearly define the role of the participants while also addressing and assessing motivations for socially

desirable responses (Latkin et al., 2017). Other than that, indirect questioning, and prefacing questions where the nature of the questions can be reoriented and reduce social desirability bias which encourages participants to choose their answers without judgement (Bergen & Labonté, 2020).

Conclusion

To summarize, the study has achieved the research objective which is to assess how perceived stress, level of resilience and self-esteem can predict life satisfaction among university students in Malaysia. The findings of this study have shown that perceived stress does not negatively predict life satisfaction, level of resilience does not positively predict life satisfaction while self-esteem positively predicts life satisfaction. The main reason for perceived stress not being able to negatively predict life satisfaction might be because of eustress and its effects on an individual's ability to perceive stress and causing lower life satisfaction. Resilience and life satisfaction being unable to be positively predicted by this study was figured to be due to the sample size of this study which there is a large difference between the sample size of past studies compared to this study.

This study has provided an increased understanding on the importance of self-esteem and how it can affect an individual's life satisfaction. As for perceived stress and resilience, this study has shown the importance to proceed with a more in-depth study towards why these predictors did not significantly affect the life satisfaction of an individual. Besides that, this study has contributed towards the Malaysian context as there have not been many studies that are researching on the same objective. Moreover, this study will shed light on the issues that are faced by Malaysian university students when they face low life satisfaction as they are able to relate to this study and formulate ways to increase life satisfaction through the suggestions provided in this study.

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Appendices

Appendix A

Ethical Approval Letter

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

Re: U/SERC/02/2023

10 January 2023

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

Dear Dr Pung,

Ethical Approval For Research Project/Protocol

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

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Personality Traits and Masculinity as Predictors of Homophobia Among Malaysian Young Man	1. Chiew Yee Kuan 2. Esther Ching Qian Han 3. Ling Chui Hong	Dr Chie Qiu Ting	10 January 2023 – 9 January 2024
2.	Social Media Use and Self-esteem as Predictors of the Risk of Experimentation with e-cigarettes Among University Students in Malaysia: Peer Influence as Mediator	1. The Xin Rou 2. Tam Jing Yi Evelyn 3. Yap Xue Li		
3.	"The Soft Things That We Hold Onto" – A Study on the Association Between Attachment Styles, Presence of Transitional Objects and Psychological Security Among Malaysian Young Adults	1. Poon Ying Ying 2. Chow Yu Ying 3. Sam Hei Man		
4.	The Predicting Effects of Attitudes, Subjective Norms, Perceived Behavioral Control on the Intention Towards Food Waste Reduction Behavior Among Malaysian Young Adults	1. Chan Hooi Mui 2. Shirley Lok Xiao Rui 3. Tee Hui Lin	Dr Gan Su Wan	
5.	Parent-Child Relationship, Perceived Social Support, and Perceived Discrimination as Predictors of Well-Being Among LGBTQ Emerging Adults in Malaysia	1. Haw Ying Huei 2. Lee Nie 3. Yashnevathy a/p Govindasamy		
6.	Personal Growth Initiative, Self-efficacy and Social Support as Predictors of Life Satisfaction Among Undergraduate Students in Malaysia	1. Diu Jia Suan 2. Chow Wen Chung 3. Tneh Sin Lin		
7.	Self-esteem, Locus of Control and Hopelessness as Predictors of Depression Among University Students in Malaysia	1. Cheang Yen Thung 2. Chuah Yue Xuan 3. Kelvin Goh Wei Jin	Dr T'ng Soo Ting	

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
8.	Personality Traits and Masculinity as Predictors of Homophobia Among Malaysian Young Man	1. Chiew Yee Kuan 2. Esther Ching Qian Han 3. Ling Chui Hong	Dr Chie Qiu Ting	10 January 2023 – 9 January 2024
9.	Determinants of Psychological Well-being Among Single Young Adults in Malaysia: Attitudes Towards Singlehood, Stereotypes and Social Support	1. Kan Vivian 2. Ngo Da Long 3. Wong Jia Man	Dr Nurul Iman Binti Abdul Jalil	
10.	Self-control, Chronotype, and Future Time Perspective as Predictors of Bedtime Procrastination Among Malaysian Young Adults	1. Isaac Lai Lik Jun 2. Leong Syn Jieh 3. Tan Hor Yinn		
11.	Perceived Stress, Resilience, Self-esteem as Predictors of Life Satisfaction Among University Students in Malaysia	1. Chueh Di-An 2. Hen Cavin 3. Lim Ya Xuan		
12.	The Relationship Between Smartphone Addiction, Internet Gaming Disorder (IGD), and Sleeping Problem (Insomnia) Among Young Undergraduate Students in Malaysia	1. Leong Lerk Yung 2. Liew Yee Hang 3. Shin Bin Shyen	Dr Ooh Seow Ling	
13.	Pornography Use, Body Image, and Relationship Satisfaction Among Malaysian Young Adults	1. Wong Wan Ching 2. Hen Zi Wei 3. Teeba Suriya a/p Kumar		
14.	Anxiety, Social Support and the Association with Psychological Well-Being Among Undergraduate Students	1. Sherine Divya a/p Pubalan 2. Nisa a/p Jothi		
15.	Loneliness and Perceived Social Support as the Predictor of Internet Addiction Among Undergraduates in Malaysia	1. Tan Jia Chyi 2. Tan Tong Yen 3. Vong Yang Yi	Dr Pung Pit Wan	
16.	Depression and Self-efficacy as Predictor to Academic Procrastination Among Undergraduate Students in Malaysia	1. Ricken Chung Li Ken 2. Tay Chong Leng 3. Joel Lee Xin Wei		
17.	Parenting Style as Predictors of Prosocial Behaviours Among Undergraduates in Malaysia	1. Wendy Tan Syn Yao 2. Liong Chu Lam		
18.	Relationship Among Self-control, Grit and Academic Procrastination Among Undergraduates in Malaysia	1. Cheow Pui Kei 2. Lim Jo Yee 3. Yap Yee Qi	Dr Siah Poh Chua	
19.	Dark Triad Personality and Moral Disengagement as the Predictors of Cyberbullying Among Undergraduate Students in Malaysia	1. Li Xin Yan 2. Hew Hui Teng 3. Loh Shao Heng		
20.	The Relationship Between Self-control, Coping Strategy and Online Game Addiction Among Undergraduate Students in Malaysia	1. Lim Chia Huey 2. Lim Shu Yee 3. Tan Shi Wei		
21.	Does Being Angry Dismiss Me from Moral Norm-keeping? An Experimental Study on the Mediating Relationship of Moral Disengagement on Anger and Cyberbullying Intention	1. Chen Win Chuan 2. Tanreet Kaur a/p Suakwinder Singh 3. Wong Puy Lyng	Dr Tan Chee Seng	
22.	The Relationship Between Autonomy, Subjective Socioeconomic Status, and Exposure to Alternative Partners on Social Media and Attitude Towards Singlehood Among Adults in Malaysia	1. Chong Yoke Sun 2. Denisha a/p Vislnasan 3. Lahvaanya a/p Pannir Selvem		
23.	Intimate Partner Violence and Psychological Distress Among Couples in Malaysia: The Role of Stockholm Syndrome	1. Samantha Ng Hui Li 2. Juliana Hoo Ju Yun	Mr Tan Soon Aun	
24.	The Mediating Role of Stress Between the Relationship of Perfectionism & Mental Well Being Among Undergraduates in Malaysia	1. Renukaa a/p Siva Kumar 2. Shabeena Yohanes a/p Stevenraj 3. Yugesh a/p Santara Sheeran		
25.	The Relationship Between Mental Health Literacy, Help-seeking Behaviour, and Socioeconomic Status Among Young Adults in Malaysia	1. Ang Yu Lun 2. Ch'ng Wei Sheng 3. Chua Leewen	Mr Tay Kok Wai	

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
26.	Sex Addiction is Associated with Personality, Social Circles, and Mental Health Issues	1. Loke Win Yi 2. Ng Zhen Le 3. Tey Cre Ying	Mr Tay Kok Wai	10 January 2023 – 9 January 2024
27.	The Relationship Between Body Mass Index (BMI), Social Media Intensity and Body Image on Anxiety Among Youths in Malaysia	1. Angelina Gin Ger Ong 2. Kumetni a/p Gobi 3. Shirley Jesslynna a/p Jayaseelan		
28.	Family Functioning, Childhood Trauma, and Self-esteem as the Predictors of Social Anxiety Among Malaysian University Students	1. Jivithan a/l Sasidaran 2. Merlena Ann Mariasoosai 3. Sela a/p Sobin Mondal		
29.	Relationship Between Vocal Fatigue, Emotion, and Motivation with Mask-wearing Among Kampar UTAR Educators	1. Celine Tan Si Min 2. Chong Yueen Cheng 3. Loo Xin Yan	Ms Lee Wan Ying	
30.	The Relationship Between Gender Role Attitudes, Attitudes Toward Childbearing, Family Functioning and Attitudes Toward Marriage Among Young Adults in Malaysia	1. Choo May Yan 2. Chloe Ng Chu Yin 3. Claryce Cheong Yong Qing		
31.	A Study on Materialism, Anxiety and Gender Differences in Compulsive Buying Behaviors Among Young Adults in Malaysia	1. Lim Shi Yuan 2. Lim Yit Han 3. Loh Carmen		
32.	Post-traumatic Stress Disorder (PTSD) as The Predictor of Emotional Well-being and Resilience Among Undergraduate Students During the COVID-19 Outbreak	1. Darshinee a/p Arudkanth 2. Divya Tharshini a/p Puantharan 3. Nivethah a/p Kalaiyarasan	Ms Liza Hartini Binti Rusdi	
33.	The Relationship Between Living Standard and Mental Health Literacy Among Youth in Malaysia	1. Su Kailun 2. Chew Weng Kit 3. Vinnosha a/p K Jeyaseelan		
34.	Relationship Between Loneliness, Self-esteem and Binge Eating Among Undergraduates in Malaysia	1. Ong Ting Wei 2. Ng Chien Yi 3. Lim Wei Fang		
35.	The Influence of Job Stress and Resilience on Job Satisfaction Mediated by Work-life Balance Among Lecturers in Universiti Tunku Abdul Rahman	1. Lee Jun Kang 2. Foong Wei How 3. Luo Wen	Ms Sanggari a/p Krishnan	
36.	Mindfulness, Resilience, and Work-Family Conflict Predict Job Performance Among Working Adults	1. Teoh Yi Wen 2. Cheah Jie Min 3. Lott Sin Yee		
37.	Compulsive Internet Use, Self-esteem, Self-efficacy as Predictors of Academic Procrastination Among Undergraduate Student	1. Lin Xingyi 2. Wong Xin Lynn 3. Zhan Shuwei	Ms Teoh Xi Yao	
38.	Relationship Between Self-esteem, Loneliness, Stress and Excessive Use of Social Media Among Undergraduate Students in Malaysia	1. Lee Hao Yan 2. Daniel Chow Weng Kin 3. Fong Zhen Yann		
39.	An Exploratory Study on the Impacts of Social Media on Malaysian Young Adults' Psychological Wellbeing	1. Rae Oon El Jin 2. Kelvin Lim Zhi Jian 3. Huang Jing Fei	Pn Wirawahida Binti Kamarul Zaman	
40.	A Case Study: Parenting Practices of Millennial Single Fathers and Its Effects on Children	1. Chua Ng Gie 2. Paige Chee Hui Min 3. Pearl Lee Yi Yao		

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

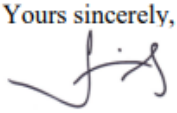
(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

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

Thank you.

Yours sincerely,



Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

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

Appendix B

G*Power Calculation

Table 1. Means, Standard Deviations (*SD*s), and Intercorrelations Among Study Variables ($N = 170$).

Main Analytic Variables	1	2	3	4	5	6	7
1. Stress	—						
2. Reflective coping	−.17*	—					
3. Suppressive coping	.46***	−.16*	—				
4. Reactive coping	.50***	.003	.57***	—			
5. Depressive symptoms	.68***	−.06	.42***	.51***	—		
6. School satisfaction	−.17*	.13	−.15†	−.11	−.24**	—	
7. Life satisfaction	−.47***	.30***	−.16*	−.17*	−.41***	.16*	—
M	2.93	3.46	2.48	2.97	1.83	3.05	4.94
SD	.63	.72	.81	.92	.57	.65	1.21

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Lardier, D. T., Lee, C.-Y. S., Rodas, J. M., Garcia-Reid, P., & Reid, R. J. (2020). The effect of perceived college-related stress on depression, Life Satisfaction, and school satisfaction: The coping strategies of Hispanic College students from a Hispanic serving institution. Education and Urban Society, 52(8), 1204–1222. https://doi.org/10.1177/0013124519896845

Table 3. *Means, standard deviations (SD), and zero-order correlations for all study variables*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Novelty seeking	28.87	3.89	1															
2. Emotion regulation	28.92	4.83	.31**	1														
3. Positive future orientation	20.46	3.31	.40**	.23**	1													
4. Resilience overall score	78.27	8.89	.75**	.76**	.67**	1												
5. Satisfaction with life	25	5.51	.27**	.25**	.34**	.38**	1											
6. Frustrations	13.82	4.36	-.19**	-.35**	-.22**	-.36**	-.49**	1										
7. Conflicts	6.45	2.59	.01	-.28**	-.12*	-.19**	-.22**	.44**	1									
8. Pressure	12.72	3.38	-.03	-.34**	-.10	-.24**	-.27**	.51**	.35**	1								
9. Change	7.75	2.93	-.12*	-.36**	-.12*	-.29**	-.33**	.57**	.33**	.51**	1							
10. Self-imposed	21.24	3.64	.08	-.29**	.03	-.11*	-.02	.23**	.13*	.42**	.22**	1						
11. Stressors	61.99	12.06	-.08	-.46**	-.15**	-.34**	-.37**	.81**	.59**	.79**	.73**	.58**	1					
12. Physiological reactions	28.07	8.17	-.09	-.32**	-.17**	-.28**	-.24**	.48**	.28**	.50**	.49**	.33**	.60**	1				
13. Emotional reactions	10.88	3.67	-.16**	-.37**	-.18**	-.34**	-.33**	.54**	.30**	.57**	.47**	.40**	.65**	.63**	1			
14. Behavioural reactions	13.87	4.23	-.19**	-.44**	-.12*	-.37**	-.34**	.48**	.35**	.41**	.42**	.31**	.56**	.49**	.58**	1		
15. Cognitive reactions	6.77	1.93	.15**	-.05	.10	.07	-.02	.30**	.18**	.34**	.26**	.29**	.39**	.33**	.34**	.26**	1	
16. Reactions	58.91	14.57	-.12*	-.41**	-.169**	-.346**	-.32**	.59**	.36**	.59**	.55**	.42**	.72**	.90**	.82**	.74**	.48**	1

Note. **. *Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). N = 340.*

REVISTA DE CERCETARE SI INTERVENTIE SOCIALĂ - VOLUMUL 48/2015

Cazan, A. M., & Truta, C. (2015). Stress, resilience and life satisfaction in college students. Revista de Cercetare si Interventie Sociala, 48, 95.

Table 2. Correlations, Means, Standard Deviations, and Ranges Among Variables.

Variable	*M*	*SD*	*Range*	Gender	SMAQ	RSES	SwLS
Gender				1			
SMAQ	24.5	9.4	8–50	0.175**	1		
RSES	39.0	6.2	17–50	0.060	−0.231**	1	
SwLS	23.5	6.7	5–35	0.122*	−0.028	0.568**	1

Note. SMAQ = Social Media Addiction Questionnaire; RSES = Rosenberg's Self-Esteem Scale; SwLS = Satisfaction with Life Scale.
*$p < .05$. **$p < .01$. ***$p < .001$.

Hawi, N. S., & Samaha, M. (2016). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, *35*(5), 576–586. https://doi.org/10.1177/0894439316660340

$$f^2 \text{ perceived stress} = \frac{(-0.47)^2}{1-(-0.47)^2}$$

$$= 0.284$$

$$f^2 \text{ Resilience} = \frac{(-0.38)^2}{1-(-0.38)^2}$$

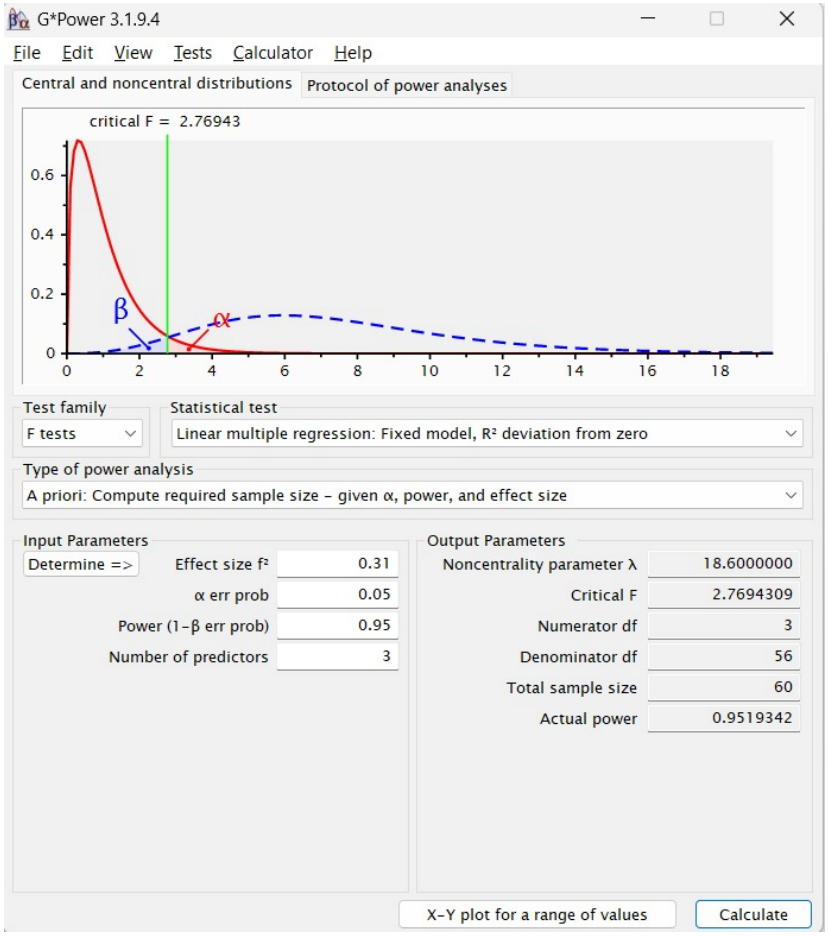
$$= 0.169$$

$$f^2 \text{ Self-Esteem} = \frac{(-0.57)^2}{1-(-0.57)^2}$$

$$= 0.481$$

$$f^2 = \frac{0.284 + 0.169 + 0.481}{3}$$

$$= 0.31$$



Appendix C

Questionnaire

PART A

Demographic Data

Please fill in your personal details or select ONE option.

1. Age: _____

2. Gender:
   - Male
   - Female
   - Others:

3. Ethnicity:
   - Chinese
   - Malay
   - Indian
   - Others

4. Religion:
   - Buddha
   - Islam
   - Christian
   - Others:

5. Current Education Level:
   - Foundation
   - A-Level
   - Diploma
   - Undergraduate
   - Postgraduate (Master)
   - Postgraduate (PhD)

6. Year of Study (E.g., First Year, Second Year): _____

7. Course of Study: _____

8. Name of Educational Institution: (Full name, E.g., Universiti Tunku Abdul Rahman)

_____

PART B

Perceived Stress Scale (PSS)

Perceived Stress Scale (PSS) is a more precise measure of personal stress can be determined by using a variety of instruments that have been designed to help measure individual stress levels.

Instruction: The questions in this scale ask you about your feelings and thoughts **during the last month.** In each case, you will be asked to indicate how often you feel or thought a certain way.

Instruction: From each question, choose from the following alternative:

0 (Never)	1 (Almost never)	2 (Sometimes)	3 (Fairly Often)	4 (Very Often)

Questions	**Scales**				
1. In the last month, how often have you been upset because of something that happened unexpectedly?	1	2	3	4	5
2. In the last month, how often have you felt that you were unable to control the important things in your life?	1	2	3	4	5
3. In the last month, how often have you felt nervous and stressed?	1	2	3	4	5
4. In the last month, how often have you felt confident about your ability to handle your personal problems	1	2	3	4	5
5. In the last month. How often have you felt that things were going your way?	1	2	3	4	5
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	1	2	3	4	5
7. In the last month, how often have you been able to control irritations in your life?	1	2	3	4	5
8. In the last month, how often have you felt that you were on top of things?	1	2	3	4	5
9. In the last month, how often have you been angered because of things that happened that were outside of your control?	1	2	3	4	5
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5

PART C

Brief Resilience Scale (BRS)

The Brief Resilience Scale was created to assess the perceived ability to bounce back or recover from stress. The scale was developed to assess a unitary construct of resilience, including both positively and negatively worded items.

Instruction: For each question, respond to each statement with how strongly you agree or disagree with it.

1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)

Questions	**Scales**				
1. I tend to bounce back quickly after hard times.	1	2	3	4	5
2. I have a hard time making it through stressful events. (r)	1	2	3	4	5
3. It does not take me long to recover from a stressful event.	1	2	3	4	5
4. It is hard for me to snap back when something bad happens. (r)	1	2	3	4	5
5. I tend to take a long time to get over set-backs in my life (r)	1	2	3	4	5

PART D

Rosenberg Self-Esteem Scale

The questions in this scale will ask you about how you perceive and view yourself and about how you feel about yourself recently.

Instructions: Below listed are the statements which deal with your general feelings about yourself. Please state how strongly you agree or disagree with the statements stated below.

1 (Strongly Disagree)	2 (Disagree)	3 (Agree)	4 (Strongly Agree)

Questions	**Scales**			
1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times I think I am no good at all. (r)	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of. (r)	1	2	3	4
6. I certainly feel useless at times. (r)	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
8. I wish I could have more respect for myself. (r)	1	2	3	4
9. All in all, I am inclined to feel that I am a failure. (r)	1	2	3	4
10. I take a positive attitude toward myself.	1	2	3	4

PART E

Satisfaction with life scale (SWLS)

A 5-item scale designed to measure global cognitive judgments of one's life satisfaction (not a measure of either positive or negative affect).

Instruction: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1 (Strongly Disagree)	2 (Disagree)	3 (Slightly Disagree)	4 (Neither agree nor disagree)	5 (Slightly agree)	6 (Agree)	7 (Strongly Agree)

Questions	**Scale**						
1. In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2. The conditions of my life are excellent	1	2	3	4	5	6	7
3. I am satisfied with my life.	1	2	3	4	5	6	7
4. So far I have gotten the important things I want in life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Appendix D

SPSS Output: Current Education Level

Current Education Level:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Foundation	5	5.1	5.1	5.1
	Diploma	3	3.0	3.0	8.1
	Undergraduate	90	90.9	90.9	99.0
	Postgraduate (Master)	1	1.0	1.0	100.0
	Total	99	100.0	100.0	

SPSS Output: Year of Study

Year of Study (e.g. First Year, Second Year):

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Year	23	23.2	23.2	23.2
	Fourth Year	1	1.0	1.0	24.2
	Second Year	25	25.3	25.3	49.5
	Third Year	50	50.5	50.5	100.0
	Total	99	100.0	100.0	

SPPS Output: Educational Institution

Name of Educational Institution: (Full name, e.g. Universiti Tunku Abdul Rahman)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HELP University	2	2.0	2.0	2.0
	Kompas International College	1	1.0	1.0	3.0
	Monash University	1	1.0	1.0	4.0
	Quest International University	1	1.0	1.0	5.1
	Taylor's University	2	2.0	2.0	7.1
	The One Academy of Communication Design	1	1.0	1.0	8.1
	UCSI University	1	1.0	1.0	9.1
	Universiti Kebangsaan Malaysia	1	1.0	1.0	10.1

	Universiti Malaya	1	1.0	1.0	11.1
	Universiti Putra Malaysia	1	1.0	1.0	12.1
	Universiti Sains Malaysia	2	2.0	2.0	14.1
	Universiti Tunku Abdul Rahman	82	82.8	82.8	97.0
	University Malaysia Perlis	1	1.0	1.0	98.0
	University of Hertfordshire	1	1.0	1.0	99.0
	University of Malaya	1	1.0	1.0	100.0
	Total	99	100.0	100.0	

SPSS Output: Course of Study

Course of Study:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accounting	3	3.0	3.0	3.0
	Actuarial Science	1	1.0	1.0	4.0
	Advertising	3	3.0	3.0	7.1
	Aquatic Science	1	1.0	1.0	8.1
	Banking and Finance	4	4.0	4.0	12.1
	Business Administration	1	1.0	1.0	13.1
	Chemistry	1	1.0	1.0	14.1
	Communication and Networking	2	2.0	2.0	16.2
	Computer Engineering	1	1.0	1.0	17.2
	Computer Science	2	2.0	2.0	19.2
	Construction Management	1	1.0	1.0	20.2
	Dietetics	4	4.0	4.0	24.2
	Electrical Engineering	1	1.0	1.0	25.3
	Electronic Engineering	1	1.0	1.0	26.3
	Engineering	1	1.0	1.0	27.3
	English Language	1	1.0	1.0	28.3
	Finance	1	1.0	1.0	29.3
	Financial Mathematics	1	1.0	1.0	30.3
	Foundation in Arts	4	4.0	4.0	34.3
	Guidance and Counselling	1	1.0	1.0	35.4
	Information Systems	1	1.0	1.0	36.4
	Interior Design	1	1.0	1.0	37.4
	Law	2	2.0	2.0	39.4
	Linguistics	1	1.0	1.0	40.4

	Marketing	2	2.0	2.0	42.4
	Mass Communication	1	1.0	1.0	43.4
	Master in Renewable Energy	1	1.0	1.0	44.4
	Medical and Surgery	1	1.0	1.0	45.5
	Pharmacy	1	1.0	1.0	46.5
	Psychology	35	35.4	35.4	81.8
	Public Relations	16	16.2	16.2	98.0
	Speech Science	1	1.0	1.0	99.0
	Veterinary Medicine	1	1.0	1.0	100.0
	Total	99	100.0	100.0	

Table 4.1

Frequency Distribution for Demographic Variables of Participants

	n	%	*M*	*SD*
Age	99		21.46	1.082
Gender				
Male	42	42.4		
Female	57	57.6		
Ethnicity				
Chinese	96	97.0		
Indian	2	2.0		
Others	1	1.0		
Religion				
Buddhism	82	82.8		
Hinduism	1	1.0		
Christianity	14	14.1		
Others	2	2.0		

Note: n = sample size; *M* = mean; *SD* = standard deviation

Table 4.2

Frequency Distribution of Main Variable

Variables	*n*	*M*	*SD*
Perceived Stress	99	19.88	4.728
Resilience	99	15.32	2.976
Self-esteem	99	26.72	4.317
Life Satisfaction	99	21.64	5.856

Note: n = sample size; *M* = mean; *SD* = standard deviation

Appendix E

Tables for Assumption of Normality

Table 4.3

Skewness and Kurtosis of Main Variables

Variables	Skewness	Kurtosis
Perceived Stress	-.168	-.025
Resilience	.163	-.341
Self-esteem	-.304	.380
Life Satisfaction	-.424	-.293

Table 4.4

Kolmogrov-Smirnov

Variables	Statistic	*df*	Sig.
Perceived Stress	.68	99	.200*
Resilience	.87	99	.063
Self-Esteem	.112	99	.004
Life Satisfaction	.83	99	.091

Note: *. This is a lower bound of the true significance

Appendix F

Tables for Multiple Linear Regression (MLR) Assumptions

Table 4.5

Multivariate Outlier Tests

Case ID	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
11	1.085	.019	.010
21	2.434	.056	.024
23	1.200	.032	.012
62	2.896	.067	.029
97	5.726	.094	.057

Table 4.6

Multicollinearity

Variables	Tolerance	VIF
Perceived Stress	.623	1.606
Brief Resilience	.687	1.456
Self-esteem	.690	1.450

Note: Dependent Variable = Life Satisfaction

Table 4.7

Durbin-Watson Test

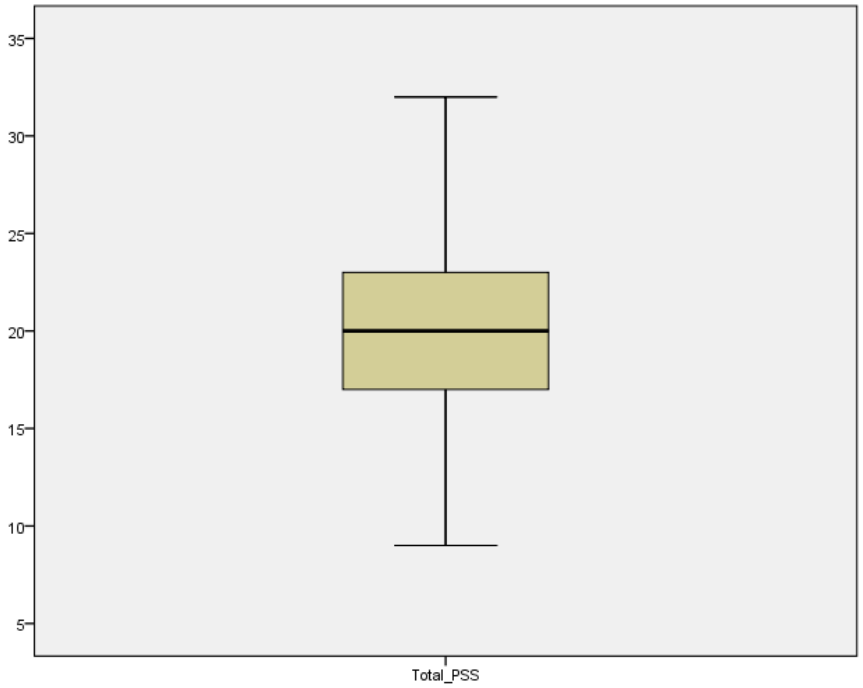
Model	Durbin-Watson
1	2.201

Note: Dependent variable = Life Satisfaction

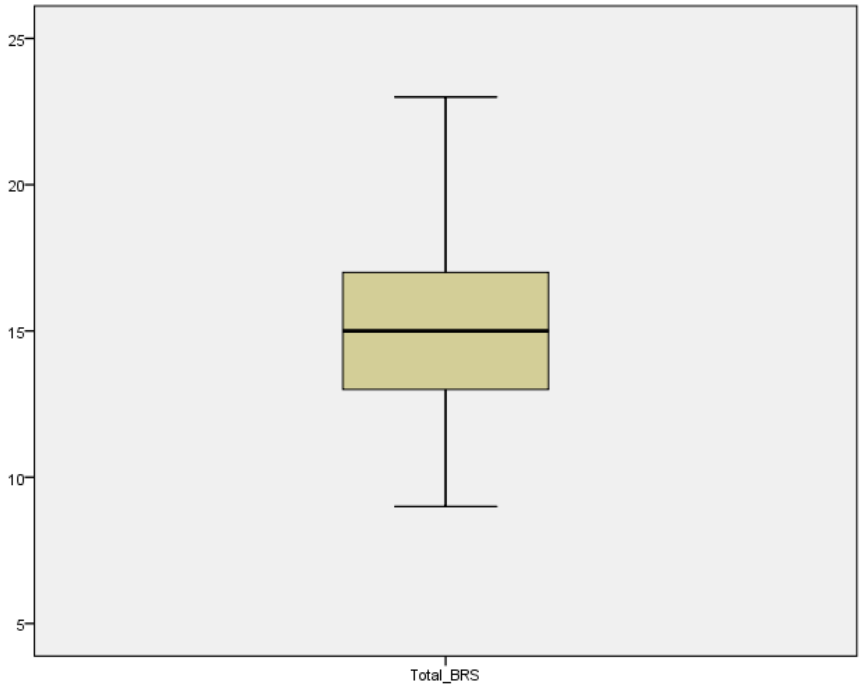
Appendix G

Boxplot

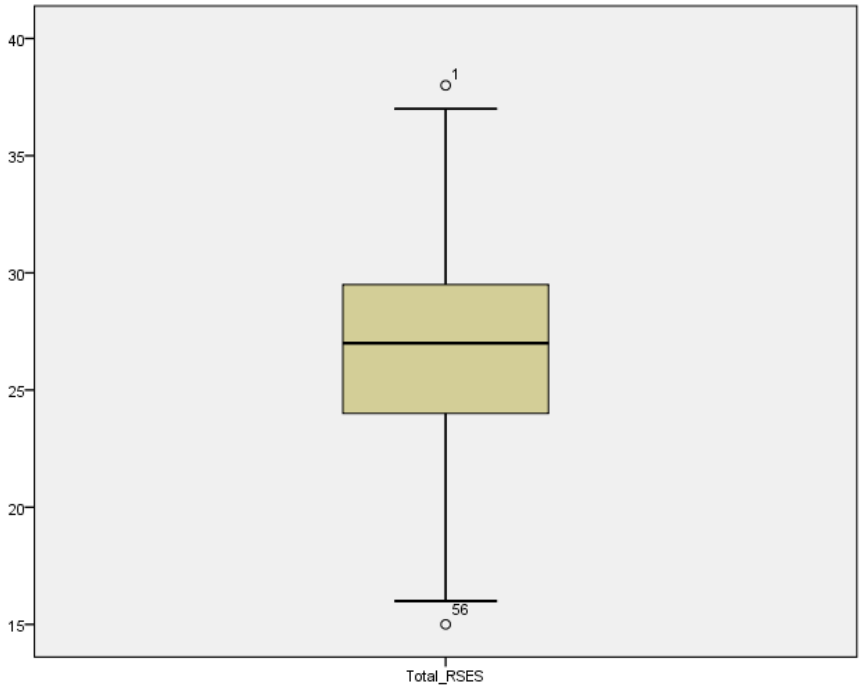
Perceived Stress



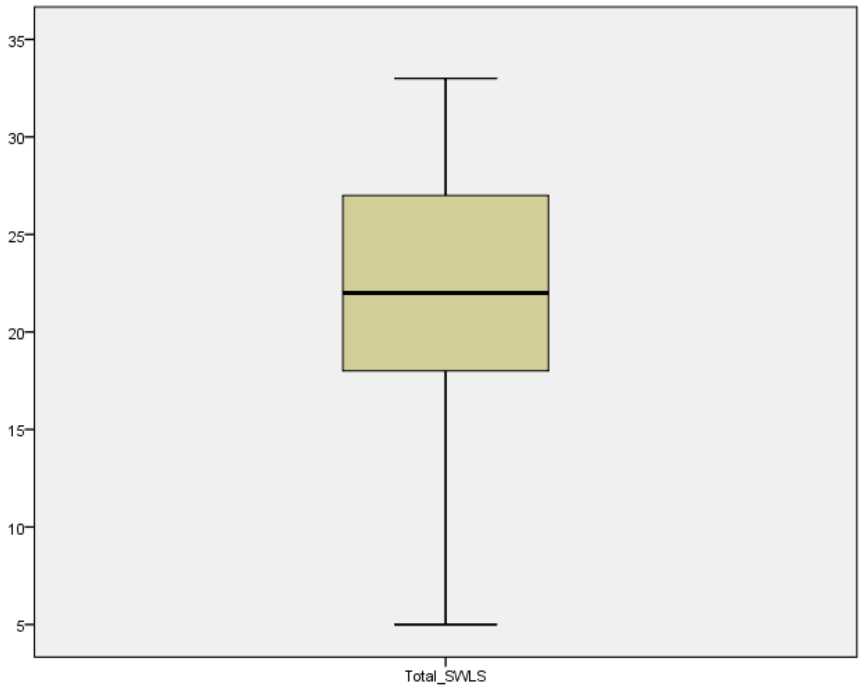
Resilience



Self-Esteem



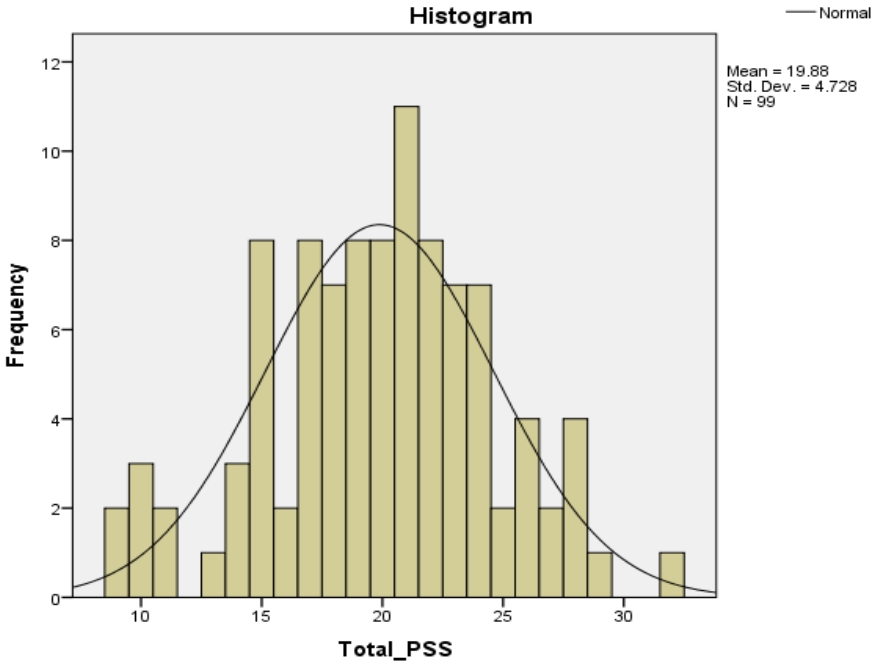
Life Satisfaction



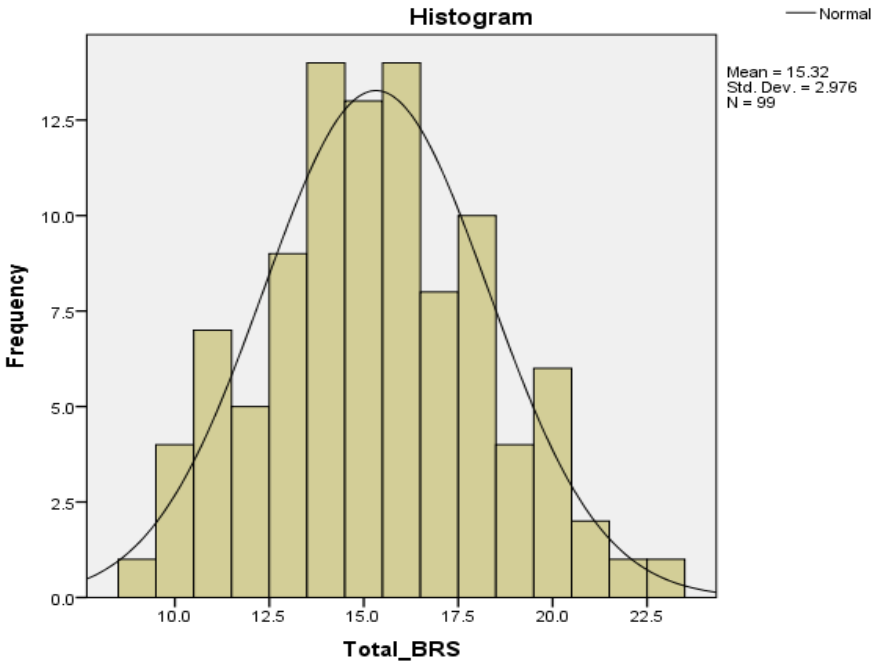
Appendix H

Histogram

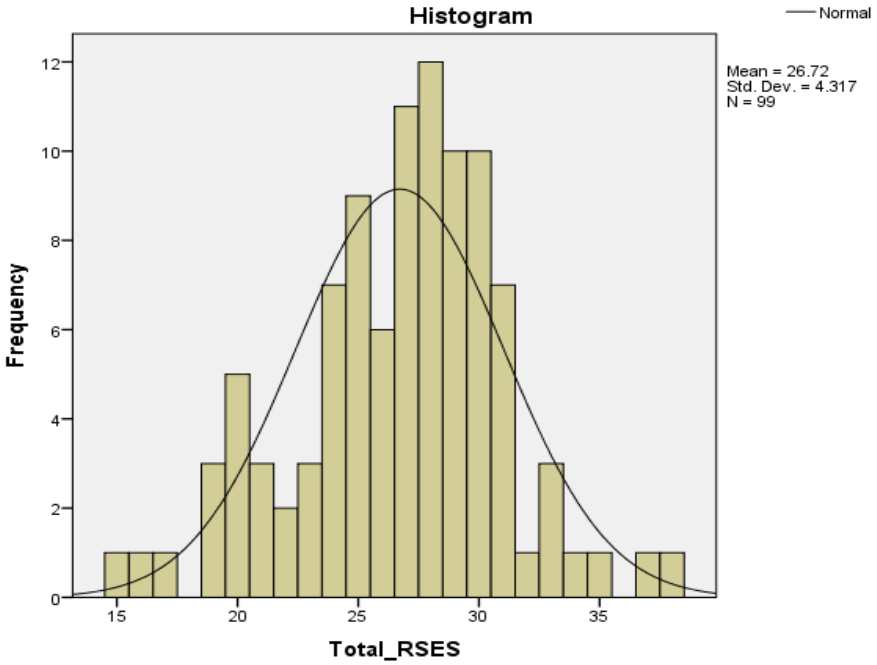
Perceived Stress



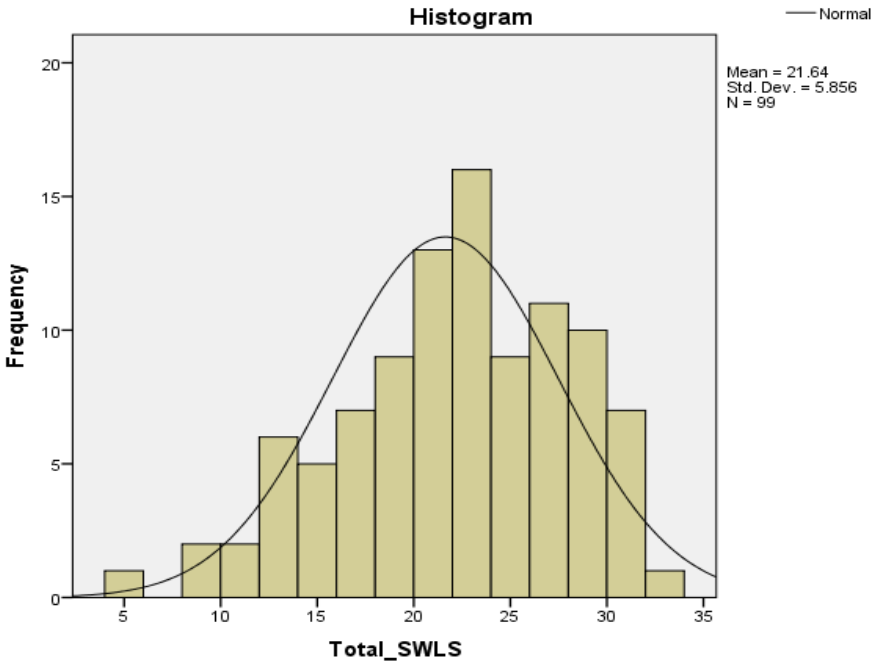
Resilience



Self-Esteem



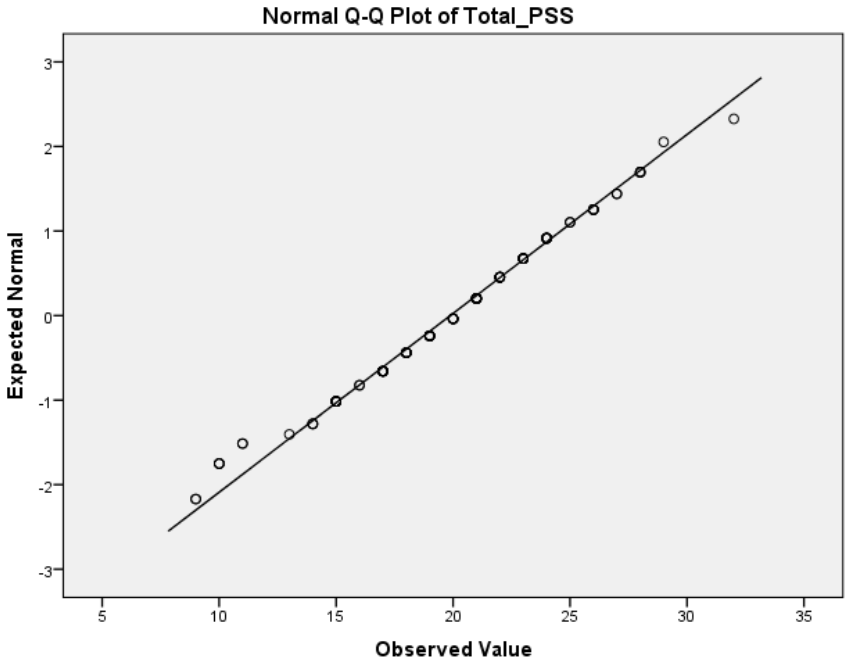
Life Satisfaction



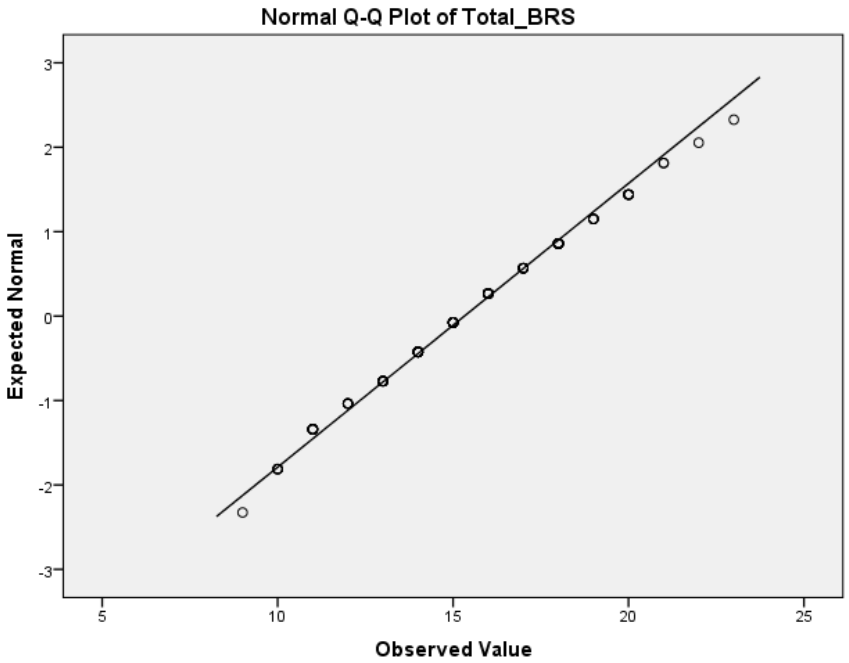
Appendix I

Q-Q Plot

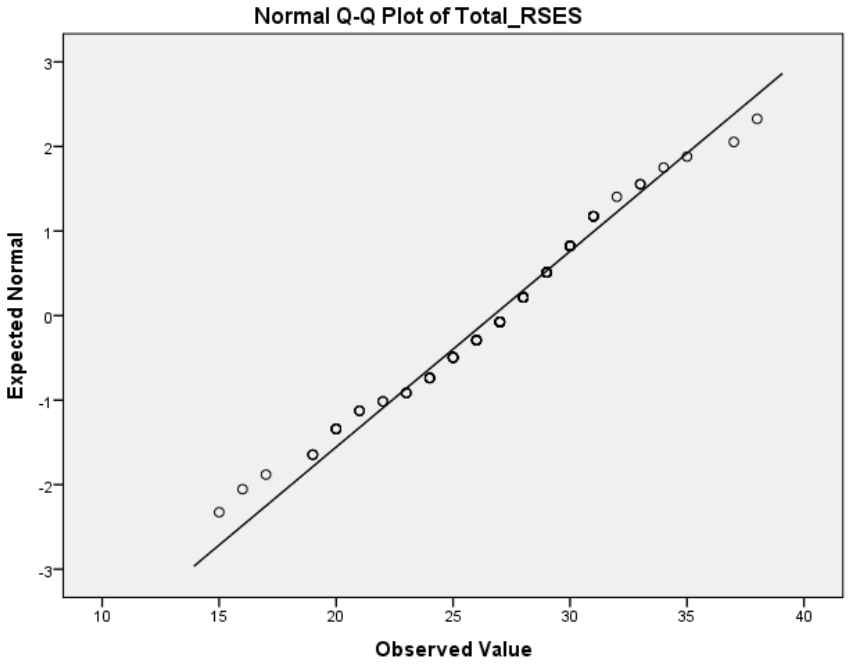
Perceived Stress



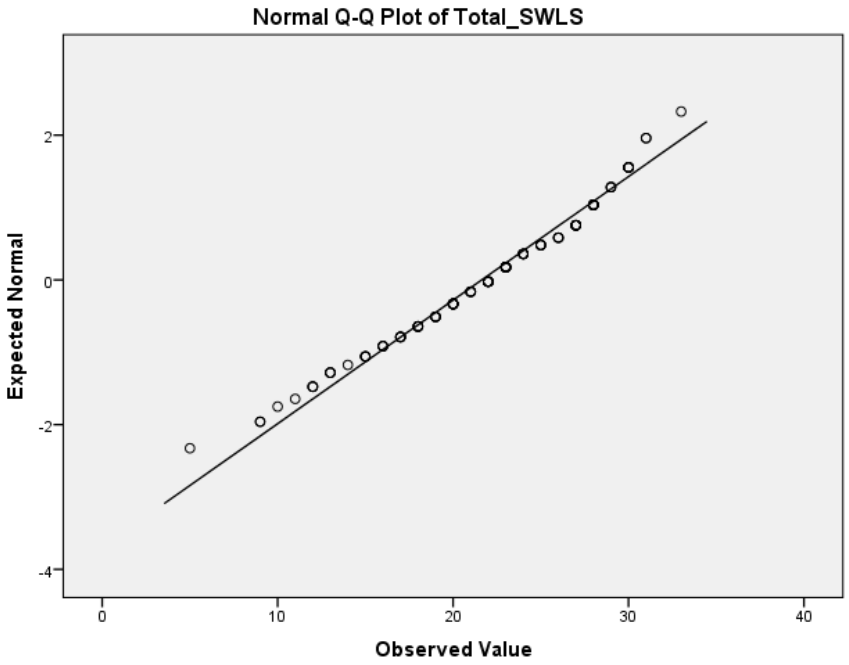
Resilience



Self-Esteem



Life Satisfaction



Appendix J

Turnitin Originality Report

FYP2 Turnitin Submission

ORIGINALITY REPORT

14%	10%	4%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

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11	Submitted to Dickson College Student Paper	<1%
12	Hamarta, Erdal. "A prediction of self-esteem and life satisfaction by social problem solving", Social Behavior and Personality An International Journal, 2009. Publication	<1%
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26	Submitted to Federation University Student Paper	<1%
27	Nicole E. Rossi, Toni L. Bisconti, C. S. Bergeman. "The Role of Dispositional Resilience in Regaining Life Satisfaction after the Loss of a Spouse", Death Studies, 2007 Publication	<1%
28	uir.unisa.ac.za Internet Source	<1%
29	www.ajms.co.in Internet Source	<1%

30	Chunhua Ma. "Impact of Social Support on Physical Activity in Adults With Heart Failure: The Mediating Effect of Resilience", Clinical Nursing Research, 2022 Publication	<1 %
31	James P. Froehlich, Geraldine M. Fialkowski, N. J. Scheers, Peter C. Wilcox, Richard T. Lawrence. "Spiritual Maturity and Social Support in a National Study of a Male Religious Order", Pastoral Psychology, 2006 Publication	<1 %
32	etheses.bham.ac.uk Internet Source	<1 %
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Appendix K

Evaluation Form

UAPZ 3023 Final Year Project II

Quantitative Research Project Evaluation Form

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

Project Title: Perceived Stress, Resilience, Self-Esteem as Predictors of Life Satisfaction among University Students in Malaysia	
Supervisor: Dr. Nurul Iman Binti Abdul Jalil	
Student's Name: 1. Chueh Di-An 2. Hen Cavin 3. Lim Ya Xuan	Student's ID 1. 19AAB04190 2. 19AAB02055 3.19AAB04799

INSTRUCTIONS:
Please score each descriptor based on the scale provided below:

1. Please award 0 mark for no attempt.
2. For criteria **7**:
   Please retrieve the marks from "**Oral Presentation Evaluation Form**".

1. ABSTRACT (5%)	**Max Score**	**Score**
a. State the main hypotheses/research objectives.	5%	
b. Describe the methodology: • Research design • Sampling method • Sample size • Location of study • Instruments/apparatus/outcome measures • Data gathering procedures	5%	
c. Describe the characteristics of participants.	5%	
d. Highlight the outcomes of the study.	5%	
e. Conclusions, implications, and applications.	5%	
Sum	25%	/25%
Subtotal (Sum/5)	5%	/5%
Remark:		

2. METHODOLOGY (25%)	**Max Score**	**Score**
a. Research design/framework: • For experiment, report experimental manipulation, participant flow, treatment fidelity, baseline data, adverse events and side effects, assignment method and implementation, masking. (*if applicable with the study design) • For non-experiment, describe the design of the study and data used.	5%	
b. Sampling procedures: • Justification of sampling method/technique used. • Description of location of study. • Procedures of ethical clearance approval. (Provide reference number of approval letter)	5%	
c. Sample size, power, and precision: • Justification of sample size. • Achieved actual sample size and response rate. • Power analysis or other methods (if applicable).	5%	
d. Clear explanation of data collection procedures: • Inclusion and exclusion criteria • Procedures of obtaining consent • Description of data collection procedures • Provide dates/duration of recruitment repeated measures or follow-up. • Agreement and payment (if any)	5%	
e. Explanation of instruments/questionnaire used: • Description of instruments • Scoring system • Meaning of scores	5%	

• Reliability and validity		
Subtotal	25%	/25%
Remark:		
3. RESULTS (20%)	**Max Score**	**Score**
a. Descriptive statistics: • Demographic characteristics • Topic-specific characteristics	5%	
b. Data diagnostic and missing data: • Frequency and percentages of missing data. (if applicable) • Methods employed for addressing missing data. (if applicable) • Criteria for post data-collection exclusion of participants. • Criteria for imputation of missing data. • Defining and processing of statistical outliers. • Analyses of data distributions. • Data transformation (if applicable).	5%	
c. Appropriate data analysis for each hypothesis or research objective.	5%	
d. Accurate interpretation of statistical analyses: • Accurate report and interpretation of confidence intervals or statistical significance. • Report of *p* values and minimally sufficient sets of statistics (e.g., *dfs*, *MS*, *MS error*). • Accurate report and interpretation of effect sizes. • Report any problems with statistical assumptions.	5%	
Subtotal	20%	/20%
Remark:		
4. DISCUSSION AND CONCLUSION (20%)	**Max Score**	**Score**
a. Constructive discussion of findings: • Provide statement of support or nonsupport for all hypotheses. • Analyze similar and/or dissimilar results. • Rational justifications for statistical results.	8%	
b. Implication of the study: • Theoretical implication for future research. • Practical implication for programs and policies.	4%	
c. Relevant limitations of the study.	4%	

d. Recommendations for future research.	4%	
Subtotal	20%	/20%
Remark:		
5. LANGUAGE AND ORGANIZATION (5%)	**Max Score**	**Score**
a. Language proficiency	3%	
b. Content organization	1%	
c. Complete documentation (e.g., action plan, originality report)	1%	
Subtotal	5%	/5%
Remark:		
6. APA STYLE AND REFERENCING (5%)	**Max Score**	**Score**
a. 7th Edition APA Style	5%	/5%
Remark:		

***ORAL PRESENTATION (20%)**	**Score**		
	Student 1	Student 2	Student 3
Subtotal	/20%	/20%	/20%
Remark:			

PENALTY	**Max Score**	**Score**
Maximum of 10 marks for LATE SUBMISSION (within 24hours), or POOR CONSULTATION ATTENDANCE with supervisor. *Late submission after 24hours will not be graded	10%	

	Student 1	Student 2	Student 3
****FINAL MARK/TOTAL**	/100%	/100%	/100%

*****Overall Comments:**

Signature: _____ Date: _____

Notes:

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

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

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

*The marks of "Oral Presentation" are to be retrieved from **"Oral Presentation Evaluation Form".**

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

Appendix L

Action Plan Form

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

Supervisee's Name:	Chueh Di-An, Hen Cavin, Lim Ya Xuan
Supervisor's Name:	Dr. Nurul Iman Binti Abdul Jalil

Task Description	Duration	Date/Time	Supervisee's Signature	Supervisor's Signature	Supervisor's Remarks	Next Appointment Date/Time
Methodology, Data Collection & Data Analysis	W1-W2	11/2/2023 2pm	Di-An Ya Xuan Hen Cavin		Undergoing Data Collection	
Finding & Analysis Discuss Findings & Analysis with Supervisor Amending Findings & Analysis	W3-W6	21/3/2023 2.20pm	Di-An Ya Xuan Hen Cavin		After data collection, proceed to analyse the data collected	
Discussion & Conclusion Discuss Discussion & Conclusion with Supervisor Amending Discussion & Conclusion	W7-W9	28/3/2023 4pm	Di-An Ya Xuan Hen Cavin		After completing the data analysis, proceed to the section of discussion, conclusion and abstrant.	
Submission of first draft*	Monday of Week 10	submit the first draft to Turnitin.com to check similarity rate				
Amendment	W10					
Submission of final FYP (FYP I + FYP II)*	Monday of W11	final submission to supervisor				
Oral Presentation		Oral Presentation Schedule will be released and your supervisor will inform you				

Notes:

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

Appendix M

Signed Permission Sheet

Universiti Tunku Abdul Rahman			
Form Title : **Sample of Submission Sheet for FYP/Dissertation/Thesis**			
Form Number : **FM-IAD-004**	Rev No: **0**	Effective Date: **21 June 2011**	Page No: **1 of 1**

FACULTY/INSTITUTE* OF ARTS AND SOCIAL SCEINCE
UNIVERSITI TUNKU ABDUL RAHMAN

Date: 10th April 2023

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Chueh Di-An (ID No: 1904190) has completed this final year project entitled "Perceived Stress, Resilience, Self-Esteem as predictors of Life Satisfaction among University Students in Malaysia" under the supervision of Dr. Nurul Iman binti Abdul Jalil (Supervisor) from the Department of Psychology and Counselling, Faculty/Institute* of Arts and Social Science.

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

Yours truly,

Name: Chueh Di-An

**Delete whichever not applicable*

Universiti Tunku Abdul Rahman			
Form Title : Sample of Submission Sheet for FYP/Dissertation/Thesis			
Form Number: FM-IAD-004	Rev No: 0	Effective Date: 21 June 2011	Page No: 1 of 1

FACULTY/INSTITUTE* OF ARTS AND SOCIAL SCEINCE
UNIVERSITI TUNKU ABDUL RAHMAN

Date: 10th April 2023

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Hen Cavin (ID No: 1902055) has completed this final year project entitled "Perceived Stress, Resilience, Self-Esteem as predictors of Life Satisfaction among University Students in Malaysia" under the supervision of Dr. Nurul Iman binti Abdul Jalil (Supervisor) from the Department of Psychology and Counselling, Faculty/Institute* of Arts and Social Science.

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

Yours truly,

Name: Hen Cavin

*Delete whichever not applicable

Universiti Tunku Abdul Rahman			
Form Title : Sample of Submission Sheet for FYP/Dissertation/Thesis			
Form Number : FM-IAD-004	Rev No: 0	Effective Date: 21 June 2011	Page No: 1 of 1

FACULTY/INSTITUTE* OF ARTS AND SOCIAL SCEINCE
UNIVERSITI TUNKU ABDUL RAHMAN

Date: 10th April 2023

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Lim Ya Xuan (ID No: 1904799) has completed this final year project entitled "Perceived Stress, Resilience, Self-Esteem as predictors of Life Satisfaction among University Students in Malaysia" under the supervision of Dr. Nurul Iman binti Abdul Jalil (Supervisor) from the Department of Psychology and Counselling, Faculty/Institute* of Arts and Social Science.

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

Yours truly,

Name: Lim Ya Xuan

*Delete whichever not applicable

Appendix N

Supervisor Comment on Originality Report

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

FACULTY OF ART AND SOCIAL SCIENCE

Full Name(s) of Candidate(s)	Chueh Di-An, Hen Cavin, Lim Ya Xuan
ID Number(s)	19AAB04190, 19AAB02055, 19AAB04799
Programme / Course	Bachelor of Social Science (Hons) Psychology
Title of Final Year Project	Perceived Stress, Resilience, Self-Esteem as predictors of Life Satisfaction among University Students in Malaysia

Similarity	**Supervisor's Comments (Compulsory if parameters of originality exceeds the limits approved by UTAR)**
Overall similarity index: 14 % **Similarity by source** Internet Sources: 10 % Publications: 4 % Student Papers: 6 %	Accepted
Number of individual sources listed of more than 3% similarity: 1	There is the number of individual sources due to the technical terms which is acceptable.

Parameters of originality required and limits approved by UTAR are as follows:

(i) Overall similarity index is 20% and below, and
(ii) Matching of individual sources listed must be less than 3% each, and
(iii) Matching texts in continuous block must not exceed 8 words

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

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

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

Signature of Supervisor

Name: Dr Nurul Iman binti Abdul Jalil

Date: 10 April 2023

Signature of Co-Supervisor

Name: _____

Date: _____