AN INVESTIGATION ON FACTORS INFLUENCING STRESS AMONG UTAR STUDENTS IN MALAYSIA

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DECLARATION

We hereby declare that:

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(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
(3) Equal contribution has been made by each group member in completing the FYP.
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LIST OF ABBREVIATIONS

AESI	Academic Expectations of Stress Inventory
ANS	Autonomic Nervous System
ASD	Acute Stress Disorder
BFI	Big Five Inventory
CCM	Concise Conscientiousness Measure
CCM-S	Short Form of Concise Conscientiousness Measure
CCS	Chernyshenko Conscientiousness Scales
CES-D	Center for Epidemiologic Studies Depression Scale
CHMW	Central for Healthy Mind and Wellbeing
CPTSD	Complex Post-Trauma Stress Disorder
DSA	Department of Students Affair
GAS	General Adaptation Syndrome
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
LPEI	Living-Up to Parental Expectation Inventory
MIER	Malaysian Institute of Economic Research
MLR	Multiple Linear Regression Model
NGO	Non-Government Organisation
NUMed	Newcastle University Medicine Malaysia
OLS	Ordinal Least Square
PSS	Perceived Stress Scale
PTSD	Post-Traumatic Stress Disorder

Q-Q plot	Quantile-Quantile plot
SPSS	Statistical Package of Social Science
UCCC	UTAR Community Counselling Centre
UTAR	Universiti Tunku Abdul Rahman
VIF	Variance Inflation Factors

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PREFACE

UBEZ 3026 Undergraduate Project is the most important subject or requirement for undergraduate students to pursue Bachelor of Economics (Honours) Financial Economics in Universiti Tunku Abdul Rahman (UTAR) Kampar campus. The researchers carried out a study with topic of "An Investigation on Factors Influencing Stress Among UTAR students in Malaysia". The aim of the study is to determine the factors that influence stress among UTAR students, which can increase the awareness of the society on the stress level of university students and put efforts on controlling the stress issue. Based on the previous studies and stress-related theories, the researchers decided to use one dependent variable and five independent variables in the study. The dependent variable is stress among UTAR students in Malaysia while the independent variables are neuroticism, conscientiousness, self-expectation, parental-expectation and social influence. This study assists the university students to understand how their personality traits, expectations and social influence may influence the recent stress levels of UTAR students. The results of the research can be used as a reference by relevant departments such as governments, NGOs and universities to provide measures for the prevention and reduction of stress-related problems.

ABSTRACT

In general, stress can have a significant impact on various aspects of an individual's physical, mental, and emotional well-being. Nowadays, university students often experience high levels of stress due to various factors. According to the research, Malaysian university students were more likely to experience depression, anxiety, and stress. However, this research aims to identify and analyze the key factors influencing stress among university students. A comprehensive literature review was conducted to gather insights into the multifaceted nature of student stress. The study employed a primary data approach, including surveys and questionnaires, to collect data from a diverse sample of Universiti Tunku Abdul Rahman (UTAR) students in Malaysia.

This research examines that what are the factors influencing stress among Universiti Tunku Abdul Rahman (UTAR) students in Malaysia. This study consists of 5 independent variables, neuroticism (N), conscientiousness (C), self-expectation (SE), parental-expectation (PE) and social influence (SE). These independent variables are used to identify the relationship between stress among UTAR students.

440 sets of questionnaires were analysed through Statistical Package of Social Science (SPSS) 28.0 software. According to results, all independent variables (neuroticism, conscientiousness, self-expectation, parental expectation) are found to have significant relationship with stress among UTAR students, except for social influence resulting an insignificant relationship. This study also provides some recommendations and feedback on improving the result and quality of the study in understanding the factor that affecting stress among university students.

Therefore, this research will cover on the discussions of these factors that influencing stress among UTAR students.

CHAPTER 1: INTRODUCTION

1.1 Background of Study

The term "stress" refers to a feeling of tension or anxiety caused by a challenging situation. Stress is an inherent human reaction that motivates us to confront life's difficulties and dangers. Most people experience stress in challenging situations such as job interviews, exams, precarious jobs, or conflicts with family and close friends. Not only that, but stress is made common by issues such as major economic crises, disease outbreaks, wars, and communal violence (Stress, 2023). According to Tan & Yip (2018), stress was first described by Hans Selye, who observed patients suffering from rare diseases complaining of low motivation and loss of appetite. Stress can be defined into three types, which are acute, episodic, and chronic stress. According to Tiwari & Fuller (2021), occurrences of stress can help a person become more sensitive and alert to what is happening around them. Acute stress theory focuses on the biological framework based on the impact of extreme stressors on human health (Shahsavarani et al., 2015). Acute stress disorder (ASD) develops within weeks of an unexpected or traumatic event. Most people cannot diagnose PTSD because it is difficult to detect mental problems without going to a psychological clinic (Tiwari & Fuller, 2021). Episodic acute stress occurs when a person experiences acute stress more frequently (Shields et al., 2017). Ohwovoriole (2022) developed a framework to illustrate the relationship between stress and hypertension by explaining the nervous system and how it affects human and mental health. Chronic stress is stress that occurs continuously when a person is unable to adapt and cope with difficult situations for a long duration. With the body and mind in a state of high tension, an excess of hormones produced by the adrenal glands can lead to maladaptation and cardiovascular problems (Legg, 2020). Chronic stress is expressed as a common term when applied to poverty, dysfunctional marriages, and chronic discrimination in the workplace (King et al., n.d.). Davis (2022) argued that chronic stress can be described

as a cage that limits people's happiness, while CPTSD can be explained as a complex form of web that traps people's minds in the worst memory or childhood they have ever experienced before.

In 2019, Gallup's 2019 Global Emotions Report revealed that about one-third of people worldwide experience stress, worry and anger issues. According to the report, Greece exhibits the highest level of stress at 59%, followed closely by the Philippines at 58%, with Tanzania at 57%, Albania and Iran both at 55%, along with Sri Lanka and the United States. Uganda registers 53% stress, while Costa Rica, Rwanda, Turkey, and Venezuela all report 52% stress. (Ray, 2019). According to Global Emotions Report, around 160,000 people from 116 countries were surveyed on people's mood in 2020. The findings indicate that 40% of adults have encountered feelings of anxiety or stress, 29% have faced physical discomfort, while 27% have felt sadness and 24% have experienced anger. In 2020, nearly 190 million people are under higher pressure than in previous years. This situation shows that the world is sadder, angry, worried, and more stressed than it has been in the past 15 years. As a result, 2020 is considered the most stressful year in recent history. There are several reasons for the stress in the world. The onset of the Covid-19 pandemic has affected millions of Americans out of work, with iconic companies filing for bankruptcy and multiple small stores closing. School closures are forcing some working mothers to juggle careers and families. This situation leads to unemployment and increased stress as they are forced to quit their jobs to focus on their families and children (Kelly, 2021).

Malaysia has been seriously affected by the global Covid-19 pandemic. Despite the relatively low number of reported infections in the country, the impact of the virus has begun to affect Malaysia's economy (Noman et al., 2021). The global outbreak has had a profoundly negative impact on economies around the world, leading not only to widespread unemployment but also to scarce job prospects for recent graduates (Noman et al., 2021). These include affecting people's mental health, especially depression and anxiety. A report by the Malaysian Institute of Economic

Research (MIER) predicts that Malaysia's real GDP will decline by 2.9% and the unemployment rate will reach nearly 2.5 million (Noor et al., 2020). The forecast has sparked widespread concern and scepticism among Malaysia's workforce, especially university graduates who are about to enter the job market. However, the situation has the potential to exacerbate an individual's stress level.

In a study conducted in Malaysia, 1,554 Malaysian citizens were surveyed about the incidence of stress, depression, and anxiety during the COVID-19 pandemic. According to the survey, 70% of them were women (74.1%) and the rest were men. Furthermore, more than half of the participants identified as Malay (57.1%) and a similar proportion identified as students (59.5%) (Shamsuddin et al., 2013). According to research, 25.1% of Malaysian citizens showed severe depressive symptoms, 18.7% showed mild depressive symptoms, 34.1% showed mild to moderate anxiety symptoms, and 0.9% showed severe anxiety symptoms (Shamsuddin et al., 2013). Findings highlight the vulnerability of women, young people, and people with chronic illnesses in coping with mental health issues during COVID-19. Financial and employment anxiety are known to negatively impact academic performance. The survey revealed that women (29.5%) recorded higher rates in major depressive symptoms compared with men (12.4%), and students (26.5%) recorded higher rates of major depressive symptoms compared with individuals from other occupational categories (Shamsuddin et al., 2013). Single people (26.5%) also had a higher prevalence of depression than married or divorced people (Shamsuddin et al., 2013).

According to this article, Malaysian undergraduates had depression levels range between 13.9% to 29.3%, anxiety levels range between 51.5% to 55.0%, and stress levels range between 12.9% to 21.6% (Teh et al., 2015). Among students, medical students are more likely to face emotional disorders such as anxiety and stress. There has been an increase in Malaysian university students experiencing depression, anxiety and stress during the Covid-19 lockdown. The main stressors of this issue are the shift of learning to an online model and uncertainty about the future such as

employment. Furthermore, instructors' high expectations, various assignments, and poor technical questions increase their anxiety levels (Hassan et al., 2022). Furthermore, Shamsuddin et al. (2013) conducted a survey among 506 students of four public universities in Klang Valley, Malaysia. 37.2% of the students faced depression, 63.0% of the students faced anxiety, and 23.7% of the students faced stress, all of which were at moderate to severe levels. The anxiety had recorded the highest percentage between the three categories. This situation is mainly due to their high expectations for academic performance, thereby creating a stressful environment in universities.

According to the survey by Kong et al. (2022), 57.2% of 285 students at Newcastle University Malaysia Medical School (NUMed) experienced anxiety: 27% (77 students) experienced mild anxiety; 15.4% (44 students) experienced moderate anxiety; 14.7% (42 students) experienced severe anxiety. In addition, among 285 students, 167 students (58.6%) suffered from depression, of which 27% (77 students) had mild depression, 16.1% (46 students) had moderate depression, 6.3% (18 students) had depression. Moderate depression, 9.1% (26 students) experienced severe depression. Among the 285 students, 227 students (79.7%) were stressed, 178 students (62.5%) were moderately stressed, and 49 students (17.2%) were highly stressed. This problem may be due to the extension of the course time due to the epidemic, which delayed the graduation time of students and affected their future employment. Consequently, this has led to a raise in the number of students experiencing depression, anxiety, and stress.

Nowadays, the university students in Malaysia faced high stress level due to the overload of assignment and the social impact. According to SinChew Daily, Universiti Tunku Abdul Rahman (UTAR) student committed suicide in 2013, that suspected due to the low exam grade and difficulties in meeting new friends. The suicide case had been taken attention from the community and UTAR internal management. To reduce the possibilities of severe stress, Department of Students Affair (DSA) had established a new unit, called UTAR Community Counselling

Centre (UCCC). UCCC wished to enlighten emotional issue not only for the students but also the community, by utilizing several ways such as social skill improvement, counselling appointment, psychology test, and combination of education and psychological knowledge (*UTAR Community Counselling Centre (UCCC)*, n.d.). DSA promoted mental wellbeing campaign or programme every year for the students and the outsiders, in order to encourage self-enrichment and peer support by increasing their emotion knowledge and interaction with others (*Student Counselling & Support*, n.d.). The occurrence of Covid 19 pandemic facilitate the support service from Counselling and Guidance unit to Centre for Healthy Mind and Wellbeing (CHMW). The presence of CHMW is aimed to ensure that all parties in UTAR including staffs, lecturers and students can involve themselves in the psychological programmes (*Counselling Unit Evolved into Centre for Healthy Minds and Wellbeing*, n.d.). Hence, the actions of UTAR can be determined how successful they are in handling the stress problem. From these, can be concluded that Universiti Tunku Abdul Rahman (UTAR) is very concern about the stress level of the students in understanding their emotion by providing the counselling services for students who need mental support.

In general, stress can be perceived from two different perspectives. Kelly McGonigal, a health psychologist at Stanford University, has a view on stress that “stress is not always harmful and negative” (University, 2015). If individuals fully embrace the concept of stress, it has the potential to improve their resilience, intelligence, productivity, and overall well-being (University, 2015). Recent research suggests that viewing stress as a positive force enables individuals to protect themselves from harm and to employ adaptive coping mechanisms that promote personal growth and well-being (The Benefits of Stress, n.d.). When viewed as an opportunity for learning and growth, stress can have positive outcomes, making individuals stronger, more energetic, happier, and even healthier in unexpected ways (Graves, 2017). In fact, most people have come to believe that stress is bad and harmful. This perception stems from evidence that chronic stress can lead to various health problems such as disease, depression, and premature death, which has led to stress gaining a negative reputation (“Chronic Stress”, 2022). Relationships can trigger stress. Stress from

work, family, or friends often spills over into relationships, and conflict or differences in needs between couples can also cause stress (Reno, 2018). Conflict, disagreement, communication breakdowns, lack of support, or relationship changes can create emotional tension and stress. Relationship-related stress can have profound effects on mental health, self-esteem, and general well-being, and can lead to symptoms such as anxiety, depression, and other psychological problems (Reno, 2018). So, while a certain level of stress can motivate us and help us cope with challenges, chronic or excessive stress will bring negative impact on a person's mental and physical health.

1.2 Problem Statement

This article reviews the determinants of stress among students at Universiti Tunku Abdul Raman Malaysia, such as neuroticism, conscientiousness, self-expectations, parental expectations, and social influences. All of these determinants are critical to changing the factors affecting stress among students in Universiti Tunku Abdul Rahman Malaysia. As the presence of the Covid 19 pandemic had restricted the mobility of Malaysian citizens and increases financial burdens, acts of suicide and depression tend to increase, especially among university students. A survey analyzed students' transition to distance digital learning during the COVID-19 pandemic, examining their levels of satisfaction, confidence, social interaction engagement, and learning engagement (Anthonysamy & Singh, 2023). During the COVID-19 pandemic, Malaysia has presented various challenges including increased economic burdens, border closures and closure of educational institutions (Kamaludin et al., 2020). This phenomenon has led to a disruption of face-to-face learning in most schools, forcing students to embrace online learning, thereby putting pressure on them. The potential toll of this pandemic is enormous, affecting individuals with job uncertainty and mental health issues. In addition to the general population, the mental health of students also needs attention. A survey highlighted that these adolescents, as a vulnerable group, experience multiple mental health problems (Chuong Hock Ting & Essau, 2021). About half of the respondents faced serious psychological

consequences such as stress, anxiety and depression (Chuong Hock Ting & Essau, 2021). These bad feelings may be attributed to home isolation and social distancing practices. A global survey found that students reported increased stress, anxiety and worry during the covid-19 lockdown (Anthonysamy & Singh, 2023). This may be due to the increased use of social media by students compared to other age groups, putting their health at risk (Kamaludin et al., 2020). As a result, they are constantly faced with a series of distressing stimuli that lead to feelings of depression and anxiety.

As per the 2020 Global Comparative Analysis of Student Achievement and Engagement in Higher Education, 70% of students in the United States, 75% in the Asia-Pacific region, and 65% in Europe, the Middle East, and Africa have encountered falling behind since the onset of the pandemic (Anthonysamy & Singh, 2023). These results indicate that the students who are experiencing the greatest academic setbacks are situated in the Asia-Pacific region. Nevertheless, students perceived those modifications to the learning environment prompted by COVID-19 yielded unfavourable effects on their academic performance. A newspaper report has disclosed that approximately 30% of young individuals in Malaysia are grappling with heightened stress and varying degrees of anxiety due to the pandemic (Anthonysamy & Singh, 2023). These encompass students who are in their graduating or final years, apprehensive about their prospects, professions, and future educational plans (Anthonysamy & Singh, 2023). Notably, heightened anxiety correlates with more pronounced negative emotional expression and reduced academic self-assurance. This observation also implies that university students exhibit limited utilization of effective learning strategies, as they heavily depend on educators for direction and assistance. This could indicate a deficiency in college students' capacity for self-regulation. Evidently, the epidemic is instigating a multitude of mental health challenges among young individuals, thereby exerting an impact on their educational progress.

Also, in this rapidly evolving environment, most people are now becoming more materialistic due to lifestyle changes. For example, employees involved in the work

environment need to focus on individual performance to achieve the goals set by the organization. The article believes that the source of workplace stress is the work environment and management style. Organizations with poor management styles will bring a lot of stress to employees, such as discrimination, lack of support, employees are not motivated, conflicting roles and responsibilities, poor communication between employees and managers, etc. (Bhui et al., 2016). In such situations, workers may be under a lot of stress and burnout may occur if no action is taken to resolve the problem. In addition, a poor working environment can also cause employees to lose motivation to do a good job, such as messy working environment, lack of communication between employees and colleagues, long working hours, poor office environment, etc. (*7 Causes of Stressful Work Environments and How to Fix Them*, n.d.). As a result, employees feel stressed and helpless when they encounter problems.

In addition, the materialization of lifestyle also affects the behaviour of students in learning and interacting with others. According to this article, materialistic people are mostly unhappy and may treat others in a more competitive and comparative way (Locke, 2016). Materialism is often associated with lower levels of happiness, less prosocial interpersonal behaviour, and poorer academic performance. They are prone to mental health problems such as bad mood, depression and anxiety, and physical health problems such as headaches. If something goes wrong, they may have difficulty learning, affecting their academic performance. Furthermore, King & Datu (2017) pointed out that materialism is negatively correlated with life satisfaction and self-actualization, and positively correlated with depression and anxiety. Materialism can reduce students' willingness to learn and focus on income-generating things, which can affect student academic performance.

According to a survey conducted by University College London, about 16% of teenagers experience high levels of chronic stress, especially at the age of 17, and 10% of 17-year-old women and 4% of 17-year-old men contemplate suicide. On average, about 24% of 17-year-olds self-harmed in 2018 (Patalay & Fitzsimons, 2020). The occurrence of negative behaviours such as suicide and self-mutilation among young

people is mainly due to their low pain tolerance. According to Anestis et al. (2013), the level of distress tolerance indirectly affects emotional control and can lead to uncontrolled stress that can damage a person's physical health. Distress tolerance can be considered an important skill for a person to balance internal feelings with external events. A failure of distress tolerance may alter a person's behaviour and attitudes to use extreme methods of coping with problems and situations, such as releasing stress by hurting oneself instead of anxiety. Post-traumatic stress disorder (PTSD) is the most common negative effect of stress disorders (Robinson et al., 2021). And for adolescents, it becomes difficult to bear the pain because they mainly interfere with puberty and maladjustment. Accelerated suicide rates become the norm when people have a low distress tolerance (Skodol et al., 2002).

1.3 Research Question

1) Does neuroticism significantly affect stress among UTAR students in Malaysia?
2) Does conscientiousness significantly affect stress among UTAR students in Malaysia?
3) Does self-expectation significantly affect stress among UTAR students in Malaysia?
4) Does parental-expectation significantly affect stress among UTAR students in Malaysia?
5) Does social influence significantly affect stress among UTAR students in Malaysia?

1.4 Research Objective

1.4.1 General Objective

The general objective of this research is to determine the potential factors that may lead to stress among UTAR students in Malaysia.

1.4.2 Specific Objective

The specific objective for this research is:

1. To determine the relationship between neuroticism and stress among UTAR students in Malaysia.
2. To determine the relationship between conscientiousness and stress among UTAR students in Malaysia.
3. To determine the relationship between self-expectation and stress among UTAR students in Malaysia.
4. To determine the relationship between parental-expectation and stress among UTAR students in Malaysia.
5. To determine the relationship between social influence and stress among UTAR students in Malaysia.

1.5 Significance of Study

This study aims to provide a clearer understanding of the factors influencing stress among UTAR students in Malaysia. Researchers will also have comprehensive information and broad knowledge about a person's experience and background, which will change the person's behaviour. In this study, researchers would like to observe how the personality that a person performs will lead to stress among UTAR students through the conscientiousness and neuroticism. Besides, researchers found that external pressure expectations can be significant when they do not match the performance. The study aimed to determine and examine the relationship between expectations (parental-expectations and self-expectations) and stress among UTAR students. Through this study, the researchers found that university students mostly adopted digital and social media, and their emotions will also be affected by these social tools. Therefore, researcher want to measure how social influence would lead to stress among UTAR students. This study advocates the critical awareness of the severe effects of stress on society. The purpose is to alert society that the risk of increased suicide, depression or mental illness could be caused by neuroticism, conscientiousness, self-expectation, parental expectation, and social influence. This study is dedicated to future studies based on the investigation on factors that influence stress among UTAR students in Malaysia.

This study is essential to determine how stress do UTAR students faced by collecting all the theories and facts through published articles, the researchers would be able to identify which factors that troubling the UTAR students' mental health. This study can help to increase the awareness of stress among UTAR students to prevent burnout. The university students mostly disengage in work, is passive to problematic situations and stressful events, and builds an avoidant personality. While the teenagers might face stress through the uncertainty of the economy, and the pandemic restricts their chances to socialise with others (Levin, 2022). Not only that, but the health crisis that occurs nowadays places them at risk, always fearing diseases and loss or death. Not only the pressure from external sources, the university students are

increasingly wondering whether the university is worth the cost to study, due to the low salary paid for the fresh graduate (Lawton, 2019). This situation struggled the university students in reducing the expectation about their future in career path ("A Youth Issue in Malaysia: Academic Stress and Career-Building Pressure, A Strain on Mental Health," 2023).. The uncertainty for future and poor stress tolerance struggled the university students' personal effort and confidence to overcome the internal and external pressure. Hence, this study could help to alert the UTAR students about the prevalence of stress and seek assistance or mental health medication services from clinical psychologists immediately to prevent mental health problems.

This study is essential to invoke government and other non-governmental organisations (NGOs) to provide external support to those who work with or are stressed. Government and NGOs can provide financial support to people facing financial difficulty. For example, governments and NGOs can incentivise employees to seek financial assistance from companies to help them solve their problems. Government and NGOs can also set up counselling centres to provide free counselling services for those facing severe stress. This initiative can improve employees' honesty with the company and increase their commitment to work while reducing stress. In addition, this study is vital for disseminating awareness to the government about the root causes of stress. Government should ensure that people's work-life well-being is protected which company cannot force them to overwork. People need time off to relax and manage their work stress. If people cannot release stress long-term, the consequences may be mental health problems such as depression and anxiety. Since people nowadays live in a fast-paced environment, self-managing stress has become an essential way for people to release their stress. Thus, the government must be aware of this problem and take immediate action to prevent the consequences of stress, such as using policies and regulations to protect workers' rights in the workplace.

1.6 Structure of Study

This research study consists of 3 chapters. Chapter 1 describes the overall background of stress in different aspects, such as domestic and global stress levels and types. Chapter 1 also demonstrates the current phenomenon of stress in different age ranges and the occurrence of problems affected by stress. To provide evidence of the stress cases that commonly happen in the current economy, Chapter 1 listed down all the problems that could be observed through the published article or news. Through this chapter, the researchers analyse the study's main purpose by understanding the factors that may lead to stress. This chapter also provides a complete framework which illustrates the potential factors that may influence stress levels through previous studies. This study also provides the main reason and importance of determining the stress amongst UTAR students towards society.

Chapter 2 comprises an overview of a topic's theoretical background. Firstly, the researcher will discuss this study's relevant theories, concepts, or models. The purpose is to identify the scope or domain of the theory related to the research. Secondly, investigate and explain the definition of each variable or previous existing theories that apply to this research study. Thirdly, the research will also design the theoretical framework to further explain the variables. Researchers use hypotheses as a support for their research and as a means of achieving new knowledge. The purpose is to test the relationship or significance between two or more variables, whether each has a positive or negative effect in this study. Furthermore, the researcher also identifies the gaps or limitations of previous research through this study. The research gap is identified based on evidence, knowledge, methodological and empirical.

In Chapter 3, the researchers will discuss the methodology used in this study. Firstly, a research model will be constructed which involves all the five independent variables discussed in this study. The researchers will determine the research methodology used for this study: qualitative or quantitative. Secondly, a data collection method will be selected, either primary data (survey and interview) or secondary data (government

publication and journal article). Thirdly, the researchers will discuss the design of sampling. A targeted population will be chosen in this session, which is the most suitable for this study. The researchers will design this study's frame and location sampling and the reasons for the decision. After determining the location sampling, the types of sampling techniques will be discussed. The researchers will discuss and choose the most appropriate technique of sampling used in this study. A formula will be utilized to calculate the most suitable sample size need based on the population size. This session is important to ensure that sufficient information and data are collected to examine the objectives of this study. Fourthly, the researchers will discuss the instruments used to gather the data. A set of questionnaires will be designed to collect respondents' data, demographic data, and perceptions of the study. Besides, the researchers will choose the variable measurements used in this study, such as nominal, ordinal, interval, and ratio scales. Furthermore, the ways to measure the presence of reliability in the questionnaire will be discussed throughout this session. A pilot test will be conducted to determine the study design's feasibility. The result of the test will be discussed in a more detailed way. A discussion on ethnic considerations will be included to ensure that the data provided by respondents is protected and must be kept confidential by researchers. Lastly, the researchers will decide on the techniques for data analysis for this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Relevant Theories/Concepts/Models

2.1.1 Hans Selye Stress Theory: General Adaptation Syndrome (GAS)

General Adaptation Syndrome (GAS), a theory that illustrates the changes in physiological in an individual's body in response to stress (Edwards, 2022). The founder of this GAS theory was Hans Selye, also called the 'father of stress research' in 1936 (Tan & Yip, 2018). Selye described the GAS as how the body adapts to a perceived threat and uses it to survive better (Burgess, 2017). There are three stages for the GAS theory (Selye, 1950).

The first stage is alarm reaction, which is the body's initial response to stress. When an individual is faced with a difficult situation, the signal will send to a part of brain, called hypothalamus. The hypothalamus will release glucocorticoids, a type of hormones, in response to the signal. The release of adrenaline and cortisol (a stress hormone) will be triggered by the glucocorticoids. This adrenaline will provide energy to the individual, increase individuals' heart rate and blood pressure. After that, a part of individual's autonomic nervous system (ANS), sympathetic branch, will be responsible to control these changes (Burgess, 2017). In this stage, the GAS helps individuals prepare for the stressors they are experiencing. This condition is often called the 'fight or flight' response.

The resistance stage starts when the body attempts to resist the physiological changes that occur in the first stage of GAS. This stage is controlled by

parasympathetic, a part of ANS. If the parasympathetic branch can overcome the stressors experiencing by decreasing the cortisol produced, the changes in heart rate and blood pressure will back to normal (Burgess, 2017). On the contrary, if the stressors are remaining means that the individual is still facing difficulty. The physiological changes will remain, and the stress hormones will continue to be produced. Prolonged periods of high stress will cause some symptoms in the body, such as headaches, sleeplessness, low emotion, and irritability (Edwards, 2022).

The third stage in GAS theory is the stage of exhaustion which is caused by chronic unresolved stress. In this stage, the body continuously tries and fails to recover from the first stage, depleting its energy resources (Burgess, 2017). The body will no longer cope with the stress, and several health problems will occur in this stage. The symptoms that a person is in the stage of exhaustion are insomnia, anxiety, depression, and lower stress tolerance (Ohwovoriole, 2022). Thus, the General Adaptation Syndrome is a good explanation of how a person's body responds to stress and how stress can be detrimental to a person's health.

2.1.2 Theory of Academic Stress

This study adopted the Academic Stress Theory, which was explored by Phillips et al. (2020), which defined that academic stress is highly linked to two different appraisals, which firstly understand the characteristic of the stressor is a type of threat that could affect a person's behaviour, and secondly determine the feeling of stress among students might affect their overall academic performance. Licayan et al. (2021) demonstrated that personal problems, afraid of failure, insufficient facilities, the relationship between teacher and student, and interaction difficulties with teachers were the main factors that caused students to be stressed. According to Park (2004), personal adequacy is highly correlated to perfectionism and can be separated into two terms: usual perfectionism and

neurotic perfectionism. Self-criticism will be performed on persons who have always felt self-inadequacy and depression towards themselves. The high fear of facing failure might lead to stress, depression, and anxiety (Conroy et al., 2002).

Alkhazaleh & Mahasneh (2016) stated that the family's attitude towards the child's poor academic and overall performance would make the child feel ashamed of failure. Although the high expectation and hope from the family, teachers, and peers motivate students to be more aggressive in their achievement, it may lead to high pressure on the students since they are afraid of failure (Li, 2021). At the same time, the relationship between teacher and students is essential in determining the students' stress due to the relatedness of the students based on the secure attachment towards a teacher (Furrer & Skinner, 2003). According to Lei et al. (2018), the supports and encouragements from teachers are essential in constructing the student's emotional development. Academic facilities are necessary for analysing academic performance (Eliasu et al., 2016). The lack of technology, study materials, and laboratory classes brought academic stress to the teachers and students.

2.1.3 James Lange Theory

The James Lange theory was developed by William James and Carl Lange (Hasa, 2022), a hypothesis explaining the derivation and characteristics of emotions. The theory suggests that emotions result from physiological changes in the body, including the experience of stress (Sincero, 2023). According to this theory, people experience different emotions based on their interpretation of arousal, that might be affected by their previous experiences, cognitive capabilities, and emotional states. For example, if a person sees a dog bark at him or her, they fear and feels ready to run. In other words, people's bodily reaction changes based on emotions. There are several physiological responses that occur when a person encounters a stressful situation, such as an increased

heart rate, elevated cortisol levels, elevated blood pressure, and heightened muscle tension (Sincero, 2023). The theory suggests that when an event stimulates a person, the body's autonomic nervous system (ANS) responds by causing physiological changes such as accelerated heart rate, muscle tension, and body sweating, and (James-Lange Theory of Emotion: Definition and Examples, 2022). These bodily changes are believed to trigger the experience of stress or stress-related emotions. The brain then interprets these physiological reactions, resulting in the experience of emotion. This process is similar to the "fight-or-flight" response (Sincero, 2023). The body's sensations in conjunction with the brain's interpretation of events and physiological changes are what prepare a person to react.

The theory challenged the dominant view at the time, which proposed that emotions were primarily cognitive or subjective experiences that occurred independently of physiological responses. The James-Lange Theory proposes that a person's perception and interpretation of their body's physiological responses play an essential role in emotional experience. In the case of stress, the theory suggests that an individual body's physiological responses to a stressful situation can contribute to the experience of stress-related emotions. However, it is crucial to determine the relationship between stress and emotions is multifaceted and complex, while other psychological and cognitive factors also play an important role in the prevalence of stress.

2.1.4 Transactional Theory of Stress and Coping

This study has adopted the transactional theory of stress and coping in explaining the relationship between conscientiousness and stress. This theory is a Transactional Model introduced by Lazarus and Folkman in 1984 that examines people’s stress adaptation (Faryabi et al., 2022). According to Lazarus & Folkman (1984), the definition for psychological stress is a type of specific

relationship between a person and the environment, in which the person perceives as depleting or exceeding the person's resources and jeopardizing the welfare. The essence of the transactional method is the two-way nature of the transaction among a person and his or her environment. Thus, neither individuals nor environment that create stress, but a complex transaction among them. According to Cooper & Quick (2017), this theory has played an essential role in creating stress and coping research. Berjot & Gillet (2011) stated that this theory has two stages, which are cognitive appraisals and coping.

Cognitive appraisals refer to the process of classifying encounters and their aspects based on its importance to well-being (Berjot & Gillet, 2011). The importance of appraisal emphasizes the stressful perception of the event rather than the event itself. This theory decides whether to initiate coping strategies and ultimately address the stressor (Cooper & Quick, 2017). Lazarus & Folkman (1984) stated that appraisals are divide into two dimension, primary and secondary appraisal. A primary appraisal assigns meaning to a particular personal or environmental transaction, define the importance of the transaction to the person's welfare. If the transaction is considered stressful, it may cause harmful, threaten, or negative emotions to that individual. The secondary appraisal evaluates coping resources indicating a person's ability to utilize the resources to cope with the situation (Berjot & Gillet, 2011).

Coping is defined as frequent cognitive and behavioural changes to control the internal and external demands created by stressful transaction (Cooper & Quick, 2017). Coping strategies are designed to manage stressors (problem-focused coping) directly or to regulate emotions arising from stressful encounters (emotion-focused coping). Cooper & Quick (2017) stated that the result of a coping effort comes with new environmental information, leading to a process of cognitive reappraisal. This circumstance will be reassessed to determine if the coping effort is successful or if the circumstance already changed from stressful

to insignificant or positive. Thus, this theory can explain how people suffer from a stressful environment and how they solve their stress.

This theory can well explained on the relationship between conscientiousness and stress. There are some aspects of conscientiousness which are goal-oriented, detail-oriented, organized, and responsibility (*Conscientiousness*, n.d.). According to the article, a high conscientiousness person using more problem-focus coping strategy as a protective from stress (Bartley & Roesch, 2011). Thus, this theory will be utilized in this study to explain the relationship between conscientiousness and stress.

2.1.5 Expectancy Value Theory

The Expectancy Value Theory was created by Atkinson in the year 1964 (Expectancy-Value Theory, 2022). It is a psychological theory that describes an individual's expectancies for success based on making decisions and forming attitudes about the expected outcomes. Their subjective values for succeeding are essential to their particular behaviour or motivation to achieve tasks and future goals (Turvey & Freeman, 2011). Expectancy-Value Theory has been used to explain various behaviours and attitudes, such as academic achievement, health behaviours, consumer choices, career choices, and interpersonal relationships. The model suggests that an individual's expectancies and values are influenced by various factors, including self-concepts, goals, socioeconomic status, the experience of success and failure, personal beliefs, and the socializing influence (parents, teachers, peers, and schools) (Barron & Hulleman, 2014). The Theory proposes that people are more likely to engage in behaviours or hold attitudes towards objects that they believe will lead to positive outcomes and have high subjective value while avoiding behaviours or objects with adverse outcomes and low subjective value. For example, if someone believes that studying for an exam will likely result in a high grade

(positive outcome), they are more preferrable to engage in studying behaviour. In this situation, the model helps shape a person's belief in their ability to perform the task (expectancy) and their motivation or desire to perform the task (value) (Barron & Hulleman, 2014). Overall, Expectancy-Value Theory provides a framework for understanding how individuals make decisions and form attitudes. It can be applied to self-expectations by considering how an individual's beliefs about their expectancies and their value to specific outcomes influence their motivation, decision-making, and attitudes towards their behaviour or performance.

2.1.6 Social Stress Theory

This study also adopted the Social Stress Theory introduced by Aneshensel (1992), which illustrated that human stress is mostly affected by social issues and supports. The theory defines that social stress can be developed through external factors. Aneshensel (1992) mentioned that social stress can be determined by using two ways which are the distribution of the social issues towards stress and the prevalence of stress among social groups such as gender and race. It also demonstrated that the standard of vulnerability to stress differs between acute and chronic stress. The social stress and coping strategies can be reflected differently when a person is placed in 3 different states and life stages: marriage, becoming a parent, and career path (Elizabeth G. Menaghan & Merves, 1984; Menaghan, 1982). Worku et al. (2020) illustrated that self-social status, high parental expectations, and financial status are highly associated with perceived stress. Finn (1972) proposed the theory of expectation, which illustrated that expectation from parents and family could influence a person's thoughts and behaviour.

According to Zheng et al. (2023), childhood life events played an essential role in developing the problem of socializing and depression in adulthood. The study

linked self-efficacy closely with social avoidance and anxiety problem, which demonstrated that a person with high self-efficacy can lead to lower stress and anxiety levels. However, the study also mentioned that the children with high self-efficacy mainly reflected the attitude of avoiding seeking help and assistance from others (Tahmassian & Moghadam, 2011). Wheaton (1983) illustrated that social stress can vary between environmental and coping resources. Environmental resources are external support from parents, friends, and colleagues. While personal coping resources are primarily based on one person's personality types, which can reflect when facing stress. Wheaton (1983) also described that stress-buffering could help a person to manage their emotions in controlling the effect of stress in terms of harmfulness.

2.2 Relevant Past Studies

2.2.1 Stress

According to Reddy et al. (2018), stress can be considered a norm or lifestyle problem that everyone might face and might lead to changes in a person's behaviour development. Mcleod (2023) described that Type A behaviour led to the formation of stress and depression by comparing it with Type B behaviour. Type A is a person's behaviour style that is more competitive, sensitive to situation changes, not patient and anxious in life, and would face higher stress than Type B (Jr & Friedberg, 1988). According to Lipp (2001), stressors can be differentiated into two types, which are internal and external. Internal stressors are the thoughts and own feelings that most commonly occur during stress. Tennant et al. (2007) illustrated that mental stress is mainly affected by self-satisfaction level, personal stress management, and cognitive ability. Jiang et al., (2022) illustrated that self-control significantly correlates with academic stress. Self-control negatively affected the mental well-being of the students and was

negatively associated with the formation of stress. A past study also reflected that self-regulation could be negatively related to stress since self-regulation is positively linked to reasonable psychological adjustment (Fuente et al., 2021).

While external stressor is the pressure that results from environmental aspects, such as incidents that a person may not control. A past study illustrated that extreme academic expectations, overload assessment, and a person's relationship network are the essential factors that affect stress (Ng et al., 2016). Pedersen & Jodin (2016) said that the friendship problem had high significance with academic stress, which the person may feel unable to escape from the existing peer group and join a new community. Lucas-Thompson & G. (2014) conducted a study that showed that parental warmth reflected negatively on the stress level. A stress study conducted in Latino can be concluded that family and friend support was negatively related to stress (Suwinyattichaiporn & Johnson, 2020). But this statement was rebutted by a study conducted in Latino, which demonstrated that peer influence had a more significant impact on human well-being than parental influence. The response collected from the Latino students reflected no relationship between social influence and stress in the psychological term (Rodriguez et al., 2003).

A past study stated that the academic stressor could be considered the most severe stress factor that could influence the mental health stage of students (Barbayannis et al., 2022). According to Kapasia et al.(2022), satisfaction level, psychological factors, and personal risk behaviour in academics are essential criteria for describing stress and depression levels among students. Besides, various previous studies illustrated that the stress faced by university students could be concluded to different factors, including academic assessment, personal behaviour and expectation, and social support (Ng et al., 2016; Reddy et al., 2018). A study conducted in Karachi illustrated that 70% of respondents in Medical College reported that they faced stress, depression, and anxiety (Khan et al., 2012). According to Khan et al. (2014), most respondents reflected

that they refused to seek external assistance when they suffered from stress. They would not express their feelings when they faced stress in education which resulted in suicide intention.

2.2.2 Neuroticism

Neuroticism refers to individuals' tendency to develop negative emotions, such as anger, anxiety, irritability, emotional instability, and depression (Widiger & Oltmanns, 2017). According to Kiziloglu & Karabulut (2023), an individual with the characteristic of neuroticism which is negative emotions tends to be more stressed when facing difficulty. During the pandemic, the nurse with neuroticism personality is more easily to affected physically and psychologically, which leads to higher stress levels. A past study found that the association between daily stress and negative emotions was more substantial in high neuroticism than low neuroticism people (Mroczek & Almeida, 2004). High neuroticism people may perceive stressors as threats rather than challenges, thus increasing their stress levels. The high-stress level may cause people to experience negative emotions, anxiety, or depression, leading to poor performance. According to Gilbert (1994), people with high neuroticism often overreact to stressors. Thus, the repeated activation of negative emotions can lead to increased sensitivity to stressors, known as the "kindling effects". This will increase the emotional response to adverse events.

A previous study found that high neuroticism people viewed their stressors as more severe and perceived them as more detrimental to daily life (Espejo et al., 2010). Even without apparent stressors, high neuroticism is more likely to feel distressed. According to Tong et al. (2006), a higher level of neuroticism is linked to greater sensitivity to stressors. This statement is because their negative emotion will treat the stressors as a threat to them and increase the perceived severity of stress from the adverse events. Neuroticism has a positively

significant impact on perceived stress (Ebstrup et al., 2011). Neuroticism predicts a tendency to assess events as a high threat and low coping resources. The high threat will cause people to fear the situation and generate higher stress. People with higher neuroticism are significantly more responsive to and more exposed to conflict (Bolger & Schilling, 1991; Bolger & Zuckerman, 1995). In addition, people with different levels of neuroticism will have different coping strategies, reactions to stress, and levels of perceived stress (Morris, 2015). As a result, these findings suggest that neuroticism significantly affects stress levels.

According to Chen et al. (2022), neuroticism has a significant direct impact on the stress level. Fichter et al. (2020) supported this result in which high neuroticism is the essential factors affecting company founders' perceived stress and further affecting the company's performance. According to Weinberg et al. (2021), neuroticism significantly impacts stress levels. The higher the instability in emotions, the higher the stress level. A previous study has found that neuroticism has positively and significantly influenced perceived stress from the perspective of academics (Bedi & Nayyar, 2022). Furthermore, a study found that people with low neuroticism tend to be less stressed during the pandemic (Eid et al., 2022). Conversely, people with high neuroticism will have a higher stress level (Liu et al., 2021). Thus, a positive relationship exists between neuroticism and stress during the pandemic. According to Anitei et al. (2013), people with high emotional stability (low neuroticism) tend to have lower levels of physical stress in the workplace. The primary sources of stress for young people in the workplace are communication problems and a lack of training for new skills. The previous study stated that neuroticism causes people to become worried and stressed during the pandemic and start to stockpile the products they think are essential (Garbe et al., 2020). Thus, neuroticism is a crucial factor that influences people’s stress levels.

2.2.3 Conscientiousness

Conscientiousness is a type of personality characterized by self-control, prudence, and competence (Legar et al., 2016). High conscientiousness can lead to less negative impact, thereby reducing the negative impact of stressors. This statement shows the negative relationship between conscientiousness and stress. According to Besser & Shackelford (2007), conscientiousness is associated with increased stress management, stress tolerance, and the ability to prevent stress. This can show that higher conscientiousness with lower stress levels will adopt more coping strategies. A study found that high conscientiousness people experience fewer episodic stressors of self-reliance and chronic stressors from academics and relationships (Murphy et al., 2013). Conscientiousness might be relevant to health which expose individuals to different stress levels or by determine whether stress affects disease-associated processes. Due to conscientiousness, people tend to plan carefully, so they are likely to avoid stressful situations and their health consequences (Cohen et al., 2007). The less stressful a person is, the lesser the health problems.

According to Brouwer et al. (2015), conscientiousness has a significantly negative relationship with stress sensitivity. High conscientiousness with high awareness of the stressful situation can help an individual to perform well by adapting to the stress. Their heart rate can quickly return to normal after a stressful situation. Chen et al. (2022) stated that people with conscientiousness would adapt to stress as a challenge and have coping strategies to reduce psychological distress. They tend to perceive less environmental stress and adapt these stresses as an opportunity for better performance. The study mentions that conscientious people will evaluate and modify their coping strategies with the situations they face.

According to Eid et al. (2022), conscientiousness negatively correlates with perceived stress during the Covid-19 pandemic. Government intervention meant

to control the pandemic through protective measures has affected people to a higher stress level. A previous study has supported the finding that the higher the conscientiousness of an athlete, the more stress can be tolerated while did not affect performance (Tok et al., 2013). According to O'Cleirigh et al. (2007), conscientiousness and perceived stress have a negative relationship in the case of HIV patients. This finding is supported by a previous study, in which a higher level of conscientiousness tends to lower perceived stress and lower negative mood during vacation (Besser & Shackelford, 2007). According to Luo & Roberts (2015), increasing people's conscientiousness will reduce stress levels and thus benefit their physical health. Thus, conscientiousness is an essential factor that influences people's stress.

2.2.4 Self-Expectation

Research has shown that academic expectations significantly cause stress among students. In past studies, Calaguas (2012) states that academic stress arises from adolescents' self-expectations and expectations of others. Chemers (2001) mentioned that the growing link between student self-evaluation and academic achievements will influence the highest psychological risk. Hope et al. (2013) have indicated that self-evaluation (self-esteem) and academic achievement significantly affect different conditions under anxiety, depressive symptoms, and perceived stress.

However, previous evidence Rodriguez (2009) shows that students can self-impose these expectations with increasing attention to promote high levels of academic performance and self-expectations among higher educational students. Pinquart & Ebeling (2020) pointed out that there is a vast difference between expectations level and academic achievement. It shows the highest expectations being more favourable to the future academic achievement. These expectations are considered an essential determinant of motivation in explaining

achievement-related behaviour. However, high expectations can motivate students to work harder, increasing their effort and persistence, ultimately promoting high academic performance (Pinquart & Ebeling, 2020).

Pinquart & Ebeling (2020) has indicated that individuals with high expectations tend to be more optimistic about future academic performance. Nevertheless, higher self-expectations are expected to lead an individual to have a perfectionistic striving for academic performance. According to Endleman et al. (2021), adolescents with high academic achievement and self-efficacy are more likely to have perfectionistic strivings. Most adolescents believe that perfectionism may be achievable to high academic achievement. Furthermore, adolescents may further pressure themselves with higher expectations and perfectionism to maintain success (Endleman et al., 2021). When individuals set high expectations for themselves or are expected to meet high standards by others, they may experience chronic stress with adverse long-term outcomes, such as depression, feelings of anxiety, self-harm, and suicide (Endleman et al., 2021). This stress can be caused by various factors, such as a fear of failure, a desire to please others, or a belief that success is necessary for personal validation or achievement. In some cases, people may set unrealistically high expectations for themselves or be held to unattainable standards, leading to even greater stress levels. High-achieving adolescents may therefore be at exceptionally high risk for these experiences. Thus, this study will examine the significance between self-expectations and stress levels.

2.2.5 Parental-Expectation

Parental expectations are the parents' beliefs and judgments regarding their child's future achievement based on the child's performance, such as course grades, learning in school, and the desired maximum level of education (Ma et al., 2018). When their child cannot achieve the expectations, they will become

stressed and start facing depression. The research found that most of the Asian and American child has poorer psychological and social adjustments, and parental expectations could become a stressor for adolescents (Choi et al., 2013). When this happens, students will start to face academic stress and thus affect their academic performance. According to Borelli et al. (2014), Chinese parents mostly put high expectations on their child's academic performance and control their children to follow their expectations. Due to this situation, the children will be experiencing higher levels of stress and negative emotion.

According to Zheng et al. (2023), parental expectation has a negative relationship with academic stress, and a positive relationship with emotional self-efficacy. While emotional self-efficacy negatively affected academic stress and test anxiety. Thus, the study concludes that emotional self-efficacy is essential in mediating the relationship between academic stress and anxiety. The study further discussed that parental expectations have significantly affected the relationship between academic stress and emotional self-efficacy. As a result of this research, parental expectations are an essential factor influencing students' stress levels.

According to Deb et al. (2015), parents' expectations of their children being the best student in the class cause them to stress when they cannot achieve their parents' target. They will have an emotional breakdown when they cannot afford the higher stress level. This finding supports a previous study in which parental expectations will directly affect their children's academic stress and further cause depression (Sarma, 2014). Besides, Sangma et al. (2018) have stated that parents mainly cause students' academic stress due to their children's welfare and increased chance of entering prestigious universities. The higher stress level of students will result in poor performance. According to Nagle & Sharma (2018), the high level of parental expectation, the high level of students' academic stress. The uncontrolled parental expectation will cause excessive involvement of parents in their children's lives. This situation will make

students unwilling to follow their parents' intervention and lead to a higher stress level. A previous study found that students forced by their parents to choose their future careers recorded higher stress levels (Tangade et al., 2011). Parents should not make decisions for their children but allow them to make their own decisions.

2.2.6 Social Influence

Social influence is a prevalent phenomenon in contemporary societies, indicating that an individual's actions, opinions, or beliefs are highly likely to impact others in various aspects of life, ranging from academic performance to substance use to mental well-being. According to Telzer et al. (2018), social influences may affect positive and negative adjustment among adolescents. The sources of social influence include peers, personal relationships, family, friends, teachers, and others.

While the presence of peer influence often affects people's social lives, it is an internal or external pressure felt to behave in specific good and bad ways. However, Choukas-Bradley et al. (2015) stated that peer influence is not necessarily a negative phenomenon, as it can also help explain how individuals adopt positive or adaptive behaviours. Peer pressure can also become a method of improving students' performance early in their college education. Chen & Deng (2022) indicated that sometimes peer pressure might positively affect college students. In terms of comparing themselves to peers, most college students can handle the pressure effectively, as they view peer pressure as a positive influence that motivates them to work hard and achieve academic success (Chen & Deng, 2022b). As competition among students intensifies, peer pressure becomes increasingly prevalent in college life (Chen & Deng, 2022b). However, some college students believe that peer pressure has adverse effects. Students may feel pressure to conform to the expectations and behaviours of

their peers, which can cause them to engage in activities or behaviours that are stressful or harmful. Students may compare themselves to their peers, leading to feelings of inadequacy or low self-esteem (Chen & Deng, 2022b).

According to Fiedler et al. (2023), several studies have recently examined the consequences of social media usage on mental health. A study reported that increased depression, anxiety, and social distress are related to time spent on social media and investment in and addiction to social media (Fiedler et al., 2023). Given this finding, using social media can potentially lead to social comparison, which can negatively affect mental health. Social media can exacerbate this, as students may see their peers' seemingly perfect lives and feel pressure to measure up. When people compare themselves to others on social media or in real life, they may feel inadequate or envious. This situation can create feelings of stress, anxiety, and low mood, as people strive to meet unrealistic standards or feel inferior to others (Hassan et al., 2022).

According to Robinson and Smith (2021), social media has positive and negative aspects. Social media can provide a sense of community and social support, which can reduce stress levels. People can connect with others who share similar experiences or interests, providing a sense of belonging and reducing feelings of isolation. It can also be a platform for self-expression, allowing people to share their thoughts, feelings, and experiences (Robinson & Smith, 2021). The social platform can be a healthy way to release emotions and alleviate stress. However, social media platforms can be a source of stress as people compare themselves to others, leading to feelings of inadequacy, low self-esteem, and stress (Eden et al., 2020). This can create stress and contribute to negative emotions. Thus, this study will examine the significance between social influence and stress level.

2.3 The Study's Conceptual Framework

According to the past studies that illustrated above, the conceptual framework has been constructed in figure 2.3.1. The figure 2.3.1 demonstrated the relationship between five independent variables and one dependent variable. The independent variables that applied in this research are neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence, whereas the dependent variable is stress.

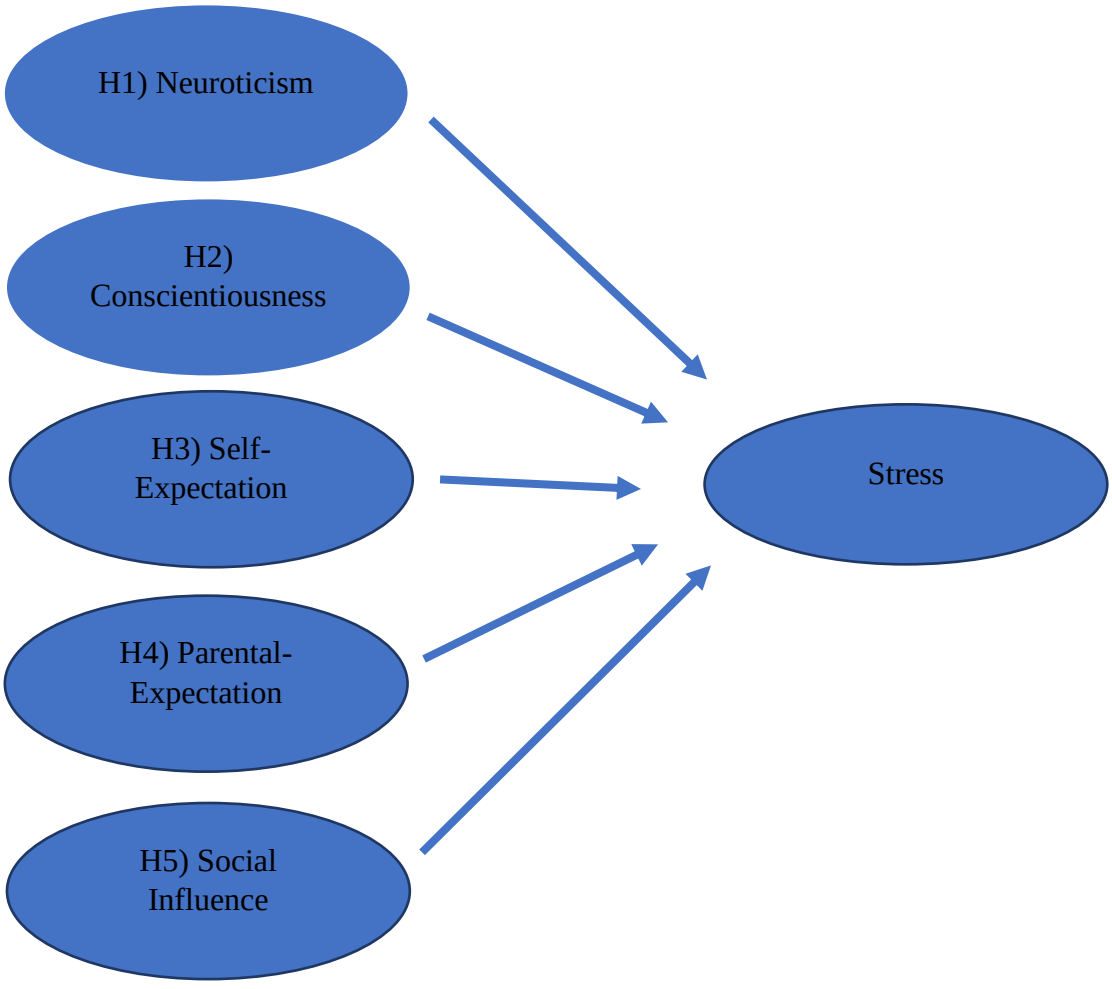

Figure 2.3.1: Conceptual Framework

2.4 Hypotheses Development

Based on the existing studies and conceptual framework, there are 5 hypotheses in the study. Through the present study, the researchers would like to examine the relationship between the five independent variables (neuroticism, conscientiousness, self-expectations, parental-expectation, and social influence) and the dependent variable which is stress among UTAR students in Malaysia. Firstly, a person with high neuroticism level may lead to the emotional instability, which may involve the cognitive function, while the cognitive function has the significant negative relationship with the stress development. Therefore, it showed significant relationship between neuroticism and stress (Scott et al., 2015).

H_1: The neuroticism significantly affect stress among UTAR students in Malaysia.

Secondly, a person with high degree of conscientiousness might lead to perfectionism and not able to adapt in uncontrolled situation, and caused the stress and pressure towards uncertainty (Lin et al., 2014). However, a past study showed negative relationship between conscientiousness and stress due to the high responsibility (Bartley & Roesch, 2011).

H_2: The conscientiousness significantly affect stress among UTAR students in Malaysia.

Thirdly, the self-expectation hypothesized have a significant relationship with the formation of stress. Naddeo et al. (2015) demonstrated that the high expectation can be defined as high estimation in own ability, might lead to the negative consequence on mental health if the things out of control. According to Calaguas (2012), the self-expectation significantly affected the academic stress that occurred among the adolescents.

H_3: The self-expectation significantly affect stress among UTAR students in Malaysia.

Fourthly, according to Ang & Huan (2006), the parents' expectations towards the achievement and success of their children is an important factor in building the strong emotional control in a person. Asakawa & Csikszentmihalyi (1998) also explained that the attitude of the person significantly affected by the parent hope and expectation, and lead to high level of positive motivation or negative depression.

H_4: The parental-expectation significantly affect stress among UTAR students in Malaysia.

Lastly, the social influence brings the emotional impact to a person which may affect the self-report and evaluation towards the stress. According to Haslam et al. (2004), the social influence reflect significant impact on a person stress status, while also explained that the relationship between social influence and stress might be depends on the situation faced.

H_5: The social influence significantly affect stress among UTAR students in Malaysia.

2.5 Gap of Literature Review

Several past studies found different arguments on the significance of conscientiousness. Lin et al. (2014) found that conscientiousness has a positive relationship with stress. A high conscientiousness person might not ably adapt in uncontrolled situation, and lead to stress of uncertainty. However, Chen et al. (2022) argued that a high conscientiousness person would adapt the stress as a challenge and opportunity for a better performance. Thus, the relationship between conscientiousness and stress is inconclusive. Pinquart & Ebeling (2020) indicates that individuals with high expectations tend to have a more positive outlook toward their future academic performance. Nevertheless, Endleman et al. (2021) contend that high self-expectations can lead to academic perfectionism, increasing stress levels. Prior studies have shown that there is a discrepancy between self-expectation and stress. However, there is a scarcity of information and research that clarifies whether high self-expectations have a significant or insignificant impact on student's academic stress. Besides, there have argument on the parental expectation which many researchers believed that the parental expectation positively significant influence stress but Zheng et al. (2023) illustrated that the parental expectation will increase the self-efficacy and reduce stress. Furthermore, there are different perspectives from previous research on the relationship between social influence and stress. Suwinyattichaiporn & Johnson (2020) and Rodriguez et al. (2003) illustrated different result in explaining the relationship between social influence and stress among the same target population.

CHAPTER 3: METHODOLOGY

3.1 Research Design

Research design is an overall strategy consisting of plans for data collection, measurement, and analysis to link distinctive elements of the study systematically and meaningfully to ensure that the research problem is effectively addressed (Tierney, 2002). Research design was divided into two major types, qualitative and quantitative research. Qualitative research is exploratory and seeks to understand individuals' underlying reasons, opinions, and motivations (Bhandari, 2020), while quantitative research focuses on numerical data and seeks to draw statistical conclusions about a population (Bhandari, 2020).

Qualitative research primarily involves interviews, observations, and focus groups, and is often used to gain insights into people's experiences, perceptions, and attitudes (Bhat, 2018). This type of research typically produces rich and detailed data that can provide a deeper understanding of a phenomenon (*Qualitative Survey Types & Examples | SurveyMonkey*, 2023). The data collected through qualitative research can be used to generate hypotheses, develop theories, and inform future research (Bhat, 2018). It is typically limited to a small sample size and cannot be easily generalized to a larger population (*Qualitative Survey Types & Examples | SurveyMonkey*, 2023)

However, researchers will use quantitative research in this research study. By using quantitative research, the researchers are allowed to measure, reflect and justify the connection among dependent and independent variables in a statistic way (Wilson, 2021). It also means that non-numerical data can be analyzed in numbers (Bhandari, 2020). Quantitative research can be applied to data with large sample sizes, and researchers can identify the patterns and averages, form estimations, examine causal relationships and generalize outcomes to broader populations (Babbie, 2014). This

type of research is often used to measure the prevalence of a particular phenomenon in a population, to compare groups or treatments, or to test hypotheses.

3.2 Data Collection Method

In the data collection stage, information will be collected from every related or suitable source to discover answers to the research problem, test the hypothesis and justify the results (Dudovskiy, n.d.).

The researchers will utilize the primary data method in this research. It provides more updated, reliable, and accurate insights compared to secondary research (Ajayi, 2017), which fulfills the research purpose of studying the factors influencing stress among UTAR students in Malaysia. The researchers wish to further explore the significant effect between the five pre-determined factors (neuroticism, conscientiousness, self-expectation, parental expectation, and social influence) and stress among UTAR students through conducting an online survey. Primary data are collected through interviews, surveys, experiments, questionnaires, or others (Benedictine University, n.d.). Therefore, this study will collect primary data via a questionnaire to study the factors influencing stress among UTAR students in Malaysia. One of the reasons for utilizing a questionnaire is that the data collected is consistent and comparable. The results can be easily entered into a database or statistical software for analysis, which allows researchers to identify patterns and trends in the data quickly. Overall, questionnaires are a convenient and cost-effective way to collect data from many participants and can provide valuable insights into various research topics.

3.3 Design of Sampling

Design of sampling defined as the plan and methodology followed to select a sample from a target population, and the formula for estimation techniques used to compute the sample statistics (Kabir, 2016). The researchers will divide it into four sections.

3.3.1 Target Population

Target population is defined as any inference from a sample refers only to the defined population from which the sample was correctly chosen (Banerjee & Chaudhury, 2010). In other words, the target population is the group of people that a study primarily concerned with. The objective of this study is to examine the relationship between the dependent variable, stress, and dependent variables, neuroticism, conscientiousness, self-expectation, parental-expectation and social influence among UTAR students in Malaysia. According to Kong et al. (2022), the stress level for students during Covid-19 pandemic is the highest, recorded 79.7% which equal to 227 out of 285 respondents. Students recorded 58 with low stress level (20.4%), 178 respondents with moderate stress level (62.5%), and 49 respondents with high stress level (17.2%). Thus, the target population for this study is UTAR students in Malaysia.

3.3.2 Frame and Location Sampling

Sampling frame is defined as a mechanism for identifying and locating sampling units within a population (West, 2016). Sampling frame is important for the researchers to recruit their target participants without wasting time. As many studies has indicated that academic performance of students at various educational levels, such as primary school, college, and university, can be

negatively influenced by manifestations of depression, anxiety, and stress (Shamsuddin et al., 2013). In fact, the majority of university or college students faced the challenges related to independent living and academic challenges. However, these symptoms can harm their academic achievement and lead to a deterioration in personal relationships (Shamsuddin et al., 2013). In this study, the sampling frame chosen in this study is Malaysia's University students. The researchers will recruit participants primarily from among the students in Universiti Tunku Abdul Rahman (UTAR).

3.3.3 Technique of Sampling

The sampling method can be differentiated into two types which are probability sampling and non-probability method (Showkat & Parveen, 2017). The probability sampling method is the type of sampling method that provides a fair selection for the potential respondents by selecting the entire sample from the whole population. Examples of probability sampling are simple random, systematic, stratified, and clustering. In comparison, the non-probability sampling method is the sampling method that is more convenient and more efficiently to proceed. For example, convenience, judgmental, quota,, and snowball sampling (Pace, 2021). This study will utilize the non-probability sampling method, which is the convenience sampling method. Due to the lack of resources, the non-probability sampling method allows the study's data collection to be less time-consuming and cost-consuming. It is suitable for research with a limited time frame compared to probability sampling. Not only this, convenience sampling enables the researchers to obtain the current data trend from a particular study's sampling frame (*Convenience Sampling*, 2023). The researchers could gather the information by getting the response for the survey in a convenience manner, such as friends, relatives, and social media. Since the chance given for the convenience sampling method does not equal for every potential respondent, the study might reduce the bias by increasing the

opportunities for the people unknown to participate in the survey, such as sharing the survey for the unrecognized UTAR students through Microsoft Team and visit physically in the university area. The researchers prepared gifts or sweets for the respondents to appreciate their participation in the survey.

3.3.4 Size of Sampling

Since the target population focused on the students from Universiti Tunku Abdul Rahman (UTAR), which consists two university campuses in Malaysia that consisted up to 20,000 students recently (*Introduction*, n.d.). Therefore, the study should identify how many of the samples can be distributed from the population that can be considered enough to represent the population. The computation of the sample size required the margin of error, population proportion and confidence level. Margin error is the probability that the researchers allow the potential error of sample differed to the population. The research mostly put the margin error between 4% to 8%, which can reduce the uncertainty and unreliability of the research. The population proportion is referred to the probability of the respondents providing answer "yes" or "no", so 50% is the best value in measuring the population proportion. Hence, this study will apply 5% to the margin of error, 50% for population proportion, and 95% of confidence interval, the study might need 377 respondents as its sample size.

$$n = N \times \frac{\frac{Z^2 \times p \times (1-p)}{e^2}}{\left[N - 1 + \frac{Z^2 \times p \times (1-p)}{e^2}\right]}$$

$$n = 20,000 \times \frac{\frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2}}{\left[20,000 - 1 + \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2}\right]}$$

$$n = 377$$

3.4 Research Instrument

This study used survey questionnaire to gather data from the respondents including respondents' demographic information. In addition, seven scales will be used to develop the questionnaire, which are Perceived Stress Scale, Big Five Inventory, Concise Conscientiousness Measure, Chernyshenko Conscientiousness Scales, Living-Up to Parental Expectation Inventory, and Academic Expectations of Stress Inventory, and Center for Epidemiologic Studies Depression Scale. Besides, the questionnaire reliability, ethical consideration, and pilot test will be discussed in this section.

3.4.1 Questionnaire Design

Questionnaire is defined as a list of questions to be filled out or commented on by respondents. By using a questionnaire, the data can be collected in a standardized way, therefore, achieving internal consistency and coherence in data analysis (Roopa & Rani, 2012). The questionnaire developed in this study included seven parts. In Section A, the questions are about the demographic's information of the respondents. The researchers will collect the personal information of the respondents to ensure that they fulfill the requirement for the research's target respondents. There are five questions in this section, including age, gender, ethnicity, year of study and programme of study. Two measurements of scale will used in this section, which are nominal and ratio scale.

Section B consists of six questions that related to stress level, which is the dependent variables in this study. This section adopted few related questions from Perceived Stress Scale (PSS), a measurement scale or assessment to examine the stress among UTAR students. Furthermore, Section C consists of six questions that related to neuroticism, the factor influencing the stress level.

Big Five Inventory (BFI) will be modified and utilized in this section. The researchers will utilize the related questions to this study. In Section D, the questions will be modified from the Concise Conscientiousness Measure (CCM), Chernyshenko Conscientiousness Scales (CCS), and the BFI for the conscientiousness variable. There are six questions included in this section. For Section E, the questions created will be supported by past studies on the influences of self-expectation on stress level. The researchers will utilize and modified questions from Academic Expectations of Stress Inventory (AESI) and prepare five questions for this section.

In Section F, the Living-Up to Parental Expectation Inventory (LPEI) will be adapted in preparing the questions. There are six questions in this section which mainly related to the independent variable, parental-expectation. For Section G, Center for Epidemiologic Studies Depression Scale (CES-D) will be applied for preparing the questions for social influence. There are six questions included in this section that supported and modified from the past studies. For all the section in the questionnaire, the questions design is based on the Five-point Likert Scale. Respondents are required to choose among the five-points from strongly disagree to strongly agree, which indicate their stand for each question. The researchers will utilize the data collected as raw materials to determine the study's objectives.

3.4.2 Variables Measurements

Variable measurement is a scientific measurement that uses a numeric alphabet to express the meaning of the variables in research. Variable measurements can be used not only in quantitative research but also in qualitative research, which can categorize the response into "Yes" or "No". There are two different categories for measurement scale, which are categorical variables and quantitative variables (Marchevsky, 2000). Categorical variables are the number

stated that do not represent meanings, such as nominal and ordinal scales. While quantitative variables can also be known as continuous variables, which consist of interval and ratio scales that contain meaning through the numeric sequences (Types of Variable, n.d.).

In this study, the researchers utilize nominal and ordinal scales to measure respondents' demographic information and independent and dependent variables. The researchers considered using the nominal scale in section A. Nominal scale is a scale mainly used by the researchers to identify the respondents, in which the selection or value is not able to explain any meanings, and most suitable for use in labelling the non-numeric data. While ratio scale is a measurement scale which able to shows the order, the actual value between units, and it has the true zero value. This scale can be applied to the questions such as height and age (Scales of Measurement, n.d.). The questionnaire in section A is mainly based on the characteristics of the respondents, such as age, gender, and ethnicity, which might not be able to generate any meaning through the options of the respondents. The questionnaire in this section is closed-ended and does not include a ranking for the answers or options. Thus, nominal scale will be applied to the questions for respondents' gender, ethnicity, year of study and programme of study. While the ratio scale will be applied to the question for respondents' age.

For Section B, the Perceived Stress Scale (PSS) will be applied in this study to determine the stress level of the UTAR students. The Perceived Stress Scale is the classical measurement tool that mostly used by the psychologists to undertake the assessment for the respondents about the recent feelings and own thoughts towards the difficulties existed (Cohen et al., 2009). The time frame of the questionnaire set in the scale is limited in last month. While the questionnaire designed in this study will adopt few questions from PSS, and the questionnaire will be modified into ordinal scale, which is five-point Likert Scale instead of score-based. The respondents can provide their opinions by

selecting the scale point from 1 (strongly disagree) until 5 (strongly agree) (Xi et al., 2018). The higher the scale that selected demonstrate that the respondents have higher stress level, and vice versa.

For Section C, the BFI will be utilized to prepare questions relating to neuroticism. The BFI refers to a self-report measurement instrument designed for the Big Five personality traits. There are 44 items included in this scale (*Big Five Inventory (BFI)*, n.d.). The researchers will use ordinal scale of measurement in this section which is a five-point Likert Scale. The respondents will share their view by selecting the scale from 1 for strongly disagree to 5 for strongly agree. If the value close to 5 means that the respondent is close to neuroticism.

For Section D, the questions in CCM-S, CCS, and BFI will be adopted in preparing the questions for conscientiousness. The CCM developed by MacCann et al. in 2009 which consisted with seven aspects of conscientiousness. There are 59 items included in the scale. Franzen et al. (2021) has developed and validated the short form of the CCM, namely CCM-S as the assessment for adolescents in educational research. Besides, the CCS is a scale that assesses the low-order structure of conscientiousness (Rocha et al., 2022). There are six domains in this scale, which are industriousness, order, self-control, responsibility, traditionalism, and virtue (Green et al., 2015). There are 60 items included in the CCS, in which I domain for 10 items. The researchers will utilize ordinal scale of measurement which is five-point Likert Scale in this section. The scale ranking is from 1 (strongly disagree) until 5 (strongly agree) (Rocha et al., 2022). Higher value means the respondent has a conscientious personality trait.

In Section E, the AESI will be used for preparing the questions for self-expectation in the questionnaire. This scale was developed by Ang and Huan (2006) in measuring the stress level arising from academic expectations for both

students and supervisors such as parents and teachers. There are 13 items and two components of self-expectation and others expectation. While in Section F, the LPEI will be adapted in preparing the questions for parental-expectation. LPEI measured the degree of a person living up to parental expectation. There are 62 items in this scale (Wang & Heppner, 2002). Ordinal scale of measurement will be use through five-point Likert Scale, 1 denote strongly disagree until 5 denote strongly agree. The higher the value represents the higher stress level causes by the expectations (Sun et al., 2011).

In Section G, the CES-D scale will be utilized for preparing the questions related social influence in the questionnaire. The CES-D Scale has been used in many studies and is considered to be a reliable and valid tool for assessing depression in various populations (Cheng et al., 2012). This scale was developed by measuring the stress level arising from social environment for adolescents (Cheng et al., 2012). Researcher will use Likert scale as ordinal scale to obtain data regarding independent variables and dependent variables based on their own perception, knowledge, and experience. The result option on this scale is constructed as 1 to 5, 1 for strongly agree while 5 for strongly disagree. The higher the value represents the higher stress level causes by the social influences.

3.4.3 Questionnaire Reliability

The reliability test is the test that is mostly applied in research study or project to ensure that the result of the research is reliable. The reliability phase in the research describes the research that might provide a similar result no matter how often the research is conducted. According to Che Md Ghazali (2016), the reliability test must be conducted regardless of the presence of a validity test. If the research lacks of reliability, the result might not let people trust the research reflect the accurate perspectives of respondents but from the external or

irrelevant variables that are not included in the research. The reliability test consists of 4 types, which are test-retest, inter-rated, parallel, and internal consistency reliability test.

Test-retest reliability test is a test that need to perform twice on the same respondents to determine that the preferences and choices that the respondents had chosen are the same within two times. According to *Reliability in Research: Definition and Assessment Types* (2023), the test-retest reliability is mostly conducted with the same respondents, and obtaining the response of the respondents at different occasions or times to test the result of the respondent are similar to explain the presence of the reliability. While the inter-rated reliability test is a test that involves several researchers that assess the same group of people and determine the difference between their responses. For example, the researchers test the same group of children at the playground to understand their emotional status. The parallel reliability test is the test that uses different kinds of surveys and questions to understand that the respondent is giving their perspective in the same way. This reliability test involved several types of research methods and a questionnaire scale to test the behaviour of the respondents in order to get a similar result from the respondent. While internal consistency is the test determining how the respondents answer the set of questionnaires in the same direction. This can help to increase the reliability of the research by testing the correlation between the questionnaires given to the respondent (Sauro, 2015).

The study used the internal consistency reliability test to determine the questionnaires set in the research related to the study. The study utilized Cronbach's Alpha to determine the presence of internal consistency reliability. Cronbach's Alpha is the most famous statistical test used by researchers to determine the validity and availability of the questionnaire, the researchers can adjust or amend the questionnaire by measuring the value observed through Cronbach's Alpha. This can help the researchers remove the items or sections

unrelated to present a high-quality questionnaire (English & Keeley, 2015). This study will mainly utilize the SPSS system to generate information through data to obtain Cronbach's Alpha value. A value that stays at 0.9 and above mean excellent, a value between 0.81 to 0.9 reflects good internal consistency, a value between 0.71 to 0.8 represent that internal consistency is good and acceptable, while a value drop between 0.61 to 0.7 mean acceptable, and the value below 0.6 means that the questionnaire is not acceptable. Most researchers use 0.7 as a benchmark to determine the presence of internal consistency (Taber, 2018). Cronbach's Alpha helps increase the research quality by determining the differences between the homogeneous questionnaire to ensure that the items are in the same construct.

3.4.4 Ethical Consideration

By ensuring the integrity of research, ethical considerations play a vital role to carried out in a way that respects, acts responsibly toward, and benefits all the parties involved. It was a list of rules to guide the research activity. When the researchers collect the data from the people, the researchers have to obey these rules. Fundamental ethical principles include voluntary participation, obtaining informed consent, ensuring anonymity, maintaining confidentiality, addressing potential harm, and appropriately communicating research findings. (Bhandari, 2021). Based on participate in voluntary, the researchers must make sure the respondents are free to participate or quit the research and cannot force respondents to resume the research when they are wishing to quit (Bhasin, 2020). For informed consent, it is the responsibility as the researchers to inform respondents that all the information they need to know before they participate in the research, the information including the data they will provide for the researchers (Bhandari, 2021). For anonymity, the researchers will not collect the respondent’s personal data, like name, phone number or any photo of the respondents (Bhasin, 2020). The researchers will not include any of their

personal information in the report, this is so called confidentiality. The researchers need to protect the respondents from getting any harm, no matter in physical or mental harm. For example, the researchers will avoid asking questions that make the respondents feel embarrassed or uncomfortable in the questionnaire. The last ethical consideration is results communication, which means that the researchers must do their work fully on themselves and avoid plagiarism from the others study (Bhandari, 2021).

3.4.5 Pilot Test

A pilot test is a process to test whether the questions in the questionnaire are good or not. Its purpose was to test the feasibility of the research before the researchers start to collect and analyse all the data (Enago Academy, 2021). Usually, this test will choose a sample from the respondents in the research to conduct the test, so it is a little experiment to test that the way the researchers to ask the questions is on the right path or not (Leon et al., 2011). It is more prefer that at least 30 of the sample can be chosen in order to conduct this test (Whitehead et al., 2016). According to Connelly (2008), it is recommended to utilize 10% of the sample size for conducting pilot test in the study. In order to obtain accurate data for this study, a minimum of 377 questionnaires is required, and therefore, it is necessary to complete at least 37 questionnaires during the pilot test. This stage enables researchers to identify and correct any issues or limitations in the study design or questionnaire before collecting data from the full sample. This can save time and resources and improve the overall quality of the data collected.

3.5 Data Analysis Techniques

This study will utilize descriptive analysis, diagnostic checking, and inferential analysis for the data analysis. The diagnostic checking includes normality, multicollinearity, and heteroscedasticity tests. For the inferential analysis, multiple linear regression analysis will be performed. These data analysis techniques will used in this research to observe how the independent variable (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) affect dependent variable (stress among UTAR students in Malaysia).

3.5.1 Descriptive Analysis

The purpose of descriptive analysis is to summarize the collected data in an organized way, through describe the relationship between variables (Kaur et al., 2018). It included frequency distribution, central tendency measurement such as mean, mode and median, and measurement of variability such as standard deviation and variance (*What Is Descriptive Statistics - Definition, Types, & More*, 2023). This tool is useful to provide basic information for the variables' use and determine the relationship between the variables.

Some tools will be utilized for comparing the data collected such as bar chart and pie chart. These tools will be applied to present the respondents' demographics profile such as age, gender, and the respondents' ethnicity. In addition, some frequency tables will be listed to illustrate the number or percentage for each group of respondents such as group of age. Mean is used to measure interval variables and thus it will be utilized in this study. Moreover, the standard deviation also will be utilized to measure the distribution of the data.

3.5.2 Diagnostic Checking

Diagnostic tests are used to examine the model misspecification in Econometrics. These tests can be used to measure the adequacy of the econometric models (DeBenedictis & Giles, 1996). This study will conduct several tests to determine the problem that might occurred in regression model, which are normality, multicollinearity, and heteroscedasticity.

3.5.2.1 Normality Test

Normality test is a statistical test that mainly explains whether the sample obtained from the population is normally distributed. The normality test is primarily performed in the research to ensure that the data collected is symmetrical and proportionate to the population. Most of the studies generated the normality test before the inferential statistical tests such as F-test and t-test since normality can be considered the basic assumption. This study will utilize the Statistical Package of Social Science (SPSS) to determine the degree of normality through the value of skewness and kurtosis and the Quantile-Quantile (Q-Q) plot distribution graph. The normality distribution can be indicated as the sample mean near the population mean, which means the symmetry of data (Godalle, 2022). There are two methods to identify the presence of normality, which are graphical and analytical. The graphical method utilized in this study is a normality plot. While the analytical method is observed through skewness, and kurtosis value. If the skewness value is close to zero, and the kurtosis value of three, the data can be considered normally distributed. However, if the sample size is larger than 300, the skewness value is less than two, and the kurtosis value falls between –7 and +7, it can be considered as normality distributed. The Quantile-Quantile (Q-Q) plot distribution graph might perform the presence of normality if the plots can construct an approximate straight line (*Quantile-Quantile Plot,* n.d.). The absence of normality interpreted that the

sample is not symmetry distributed from the population, with even higher or steeper values (Ghasemi & Zahediasl, 2012).

3.5.2.2 Multicollinearity

Multicollinearity refers to a linear relationship between the independent variables (Shrestha, 2020). In regression models, when some of the independent variables are highly correlated with each other, multicollinearity problem will occur. The major problem of multicollinearity includes erratic and biased standard errors. This may cause the p-values assessing the statistical significance of independent variables to become very erratic, leading to unrealistic interpretation of the variables (Vatcheva et al., 2016). In other words, over-inflating standard errors causes multicollinearity to render some independent variables statistically insignificant when in fact they should be (Daoud, 2017).

The researchers will generate the Variance Inflation Factors (VIF) using SPSS system in this study. The result will be applied in detecting the multicollinearity. If the VIF is equal to 1, which means that there is no correlation between the independent variable and no multicollinearity problem for the regression model. If the VIF falls between 1 to 5, it means that there is moderately correlated between the independent variables. However, if the VIF value more than 5, means that highly correlated between the independent variables and multicollinearity problem has been detected in the regression model (Daoud, 2017). Besides, this study also will utilize the tolerance value calculated by using SPSS to detect the existence of multicollinearity problem. The tolerance value is defined as the reciprocal of the VIF. If the tolerance value is close to 1, means that there is no multicollinearity exists in the regression model (Oke et al., 2019). If the tolerance value is lower than 0.1 to 0.2, it means that the multicollinearity problem exists in the regression model (Kim, 2019).

3.5.2.3 Heteroscedasticity - Breusch Pagan Godfrey Test

According to Stephanie (2016), Breusch Pagan Godfrey test is mostly utilized to detect heteroscedasticity problem. The heteroscedasticity problem typically arises when the variability of errors in a regression model varies across different levels of the independent variables (*Heteroscedasticity Definition: Simple Meaning and Types Explained*, 2023). In other words, the variability of the residuals changes as the values of the independent variables' changes. This study might utilize SPSS to generate P-value for heteroscedasticity testing purpose. A p-value exceeding 0.05 suggests the absence of heteroscedasticity, whereas a p-value below 0.05 indicates the presence of heteroscedasticity. While the Breusch-Pagan-Godfrey test determines the degree to which errors change as the explanatory variables increase (Stephanie, 2016). This process entails creating an estimation of the relevant regression model, which captures the connection between dependent and independent variables (Stephanie, 2016).

3.5.3 Inferential Analysis

Inferential analysis is an extend analysis that involved extra conclusion on the characteristics of the data collected instead of immediate description. The inferential analysis that used in this study is multiple linear regression model (MLR).

3.5.3.1 Multiple Linear Regression Research Model

The multiple linear regression model is a statistical method that can be described as an extension of Ordinary Least Squares (OLS). This approach is used to investigate the relationship among a dependent variable and two or more independent variables (Taylor, 2020). multiple linear regression is frequently

employed to investigate the connection between multiple predictor variables and a response variable (Taylor, 2020). The multiple Linear Regression for this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \ldots \beta_k X_k$$

$$S = \beta_0 + \beta_1 N + \beta_2 C + \beta_3 SE + \beta_4 PE + \beta_5 SI$$

Where,

S = Stress among UTAR students in Malaysia

β_0 = Constant

N = Neuroticism

C = Conscientiousness

SE = Self-Expectation

PE = Parental-Expectation

SI = Social Influence

To use this model for research, the researchers would typically collect data on the predictor variables and the response variable for a sample of individuals or cases. The researchers of this study might utilize Statistical Package of Social Science (SPSS) to generate the coefficient value for the independent variables, in order to estimate the dependent variables. The value of the independent variable is identified from samples collected through survey. By determining the coefficient values for each independent variable, multiple linear regression can elucidate the connection between stress and these independent factors (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence). Besides, the researcher utilizes the Adjusted R-square and F-statistic to describe the relationship between dependent and independent variables. Furthermore, Adjusted R-squared is a statistical metric employed to evaluate the appropriateness of fit in a regression model (Taylor, 2023). Adjusted R-squared ranges from 0 to 1. A higher Adjusted R-squared value is generally preferable (Team, 2020). In other words, a greater proportion of the

variability for independent variables to illustrate the dependent variable (Team, 2020). The F-test is a statistical test utilized to ascertain if the regression model effectively accounts for the variance observed in the dependent variable (Frost, 2017). In the context of multiple linear regression, the F-test evaluates whether there is at least one independent variable with a coefficient that is not equal to zero. Both Adjusted R-square and the F-test provide valuable insights into the effectiveness of a multiple linear regression model.

CHAPTER 4: DATA ANALYSIS

4.1 Reliability Test

In this study, the presence of reliability determined through internal consistency test. According to Taber (2018), the value of Cronbach Alpha that recorded 0.7 and above can be considered as the benchmark to describe the presence of reliability in a study.

Table 4.1.1: Reliability Test

	Number of items	Cronbach Alpha(α)	
		Pilot test (n=40)	Actual test (n=440)
Stress	6	0.856	0.797
Neuroticism	6	0.820	0.826
Conscientiousness	6	0.763	0.799
Self-Expectation	5	0.834	0.742
Parental-Expectation	6	0.877	0.853
Social Influence	6	0.887	0.848

Source: Obtained from SPSS

According to the Table 4.1.1 that obtained through SPSS, the Cronbach Alpha for dependent variable which is stress level is 0.856 for pilot test and 0.797 for actual test. While in pilot test, the Cronbach Alpha values for the independent variables which are neuroticism, conscientiousness, self-expectation, parental-expectation and social influence were 0.82, 0.763, 0.834, 0.877, and 0.887 respectively. In actual test, the Cronbach Alpha value for these independent variables were 0.826, 0.799, 0.742, 0.853, and 0.848 accordingly. While all the Cronbach Alpha values for variables in pilot and actual test recorded above 0.7, which illustrated that the variables were good and acceptable reliability.

4.2 Descriptive Analysis

In this study, the descriptive analysis is performed for respondents' demographic information and the data collected from Section A to Section G. Tables and pie charts were utilized to present the data in a clear format.

4.2.1 Respondents' Demographic Information

4.2.1.1 Age

Table 4.2.1.1.1: Descriptive Statistic for Respondents' Age

Age	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
18 years old	22	5.0	22	5.0
19 years old	117	26.6	139	31.6
20 years old	108	24.5	247	56.1
21 years old	115	26.1	362	82.3
22 years old	41	9.3	403	91.6
23 years old	24	5.5	427	97.0
24 years old	12	2.7	439	99.8
25 years old	1	0.2	440	100.0

Source: Obtained from SPSS

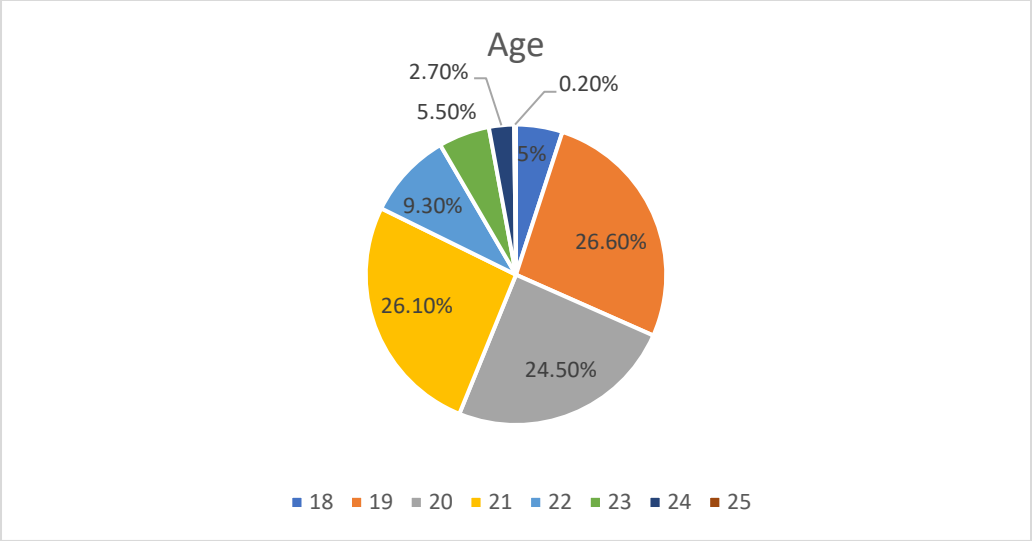

Figure 4.2.1.1.1: Descriptive Statistic for Respondents' Age

According to Table 4.2.1.1.1 and Figure 4.2.1.1.1, the largest proportion of the respondents were from age 19 years old, which recorded 117 respondents (26.6%). Followed by age 21 years old and 20 years old, recorded 115 respondents (26.1%), and 108 respondents (24.5%), respectively. Out of total of 440 respondents, 41 respondents (9.3%) were age 22 years old, 24 respondents (5.5%) were age 23 years old, and 22 respondents (5%) were age 18 years old. A total of 12 respondents (2.7%) were 24 years old. The lowest proportion of the respondents participated in this study was age 25 years old, which only 1 respondent (0.2%).

4.2.1.2 Gender

Table 4.2.1.2.1: Descriptive Statistic for Respondents' Gender

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Male	138	31.4	138	31.4
Female	302	68.6	440	100.0

Source: Obtained from SPSS

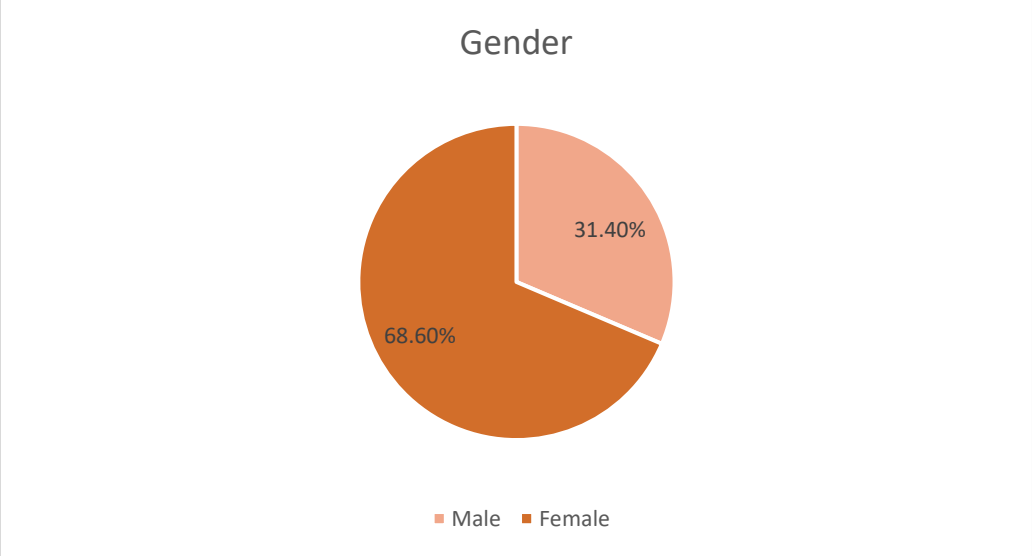

Figure 4.2.1.2.1: Descriptive Statistic for Respondents' Gender

Table 4.2.1.2.1 and Figure 4.2.1.2.1 described that the proportion of respondents' gender who participated in the survey. Majority of the respondents (68.60%) which equivalent to 302 respondents were female respondent. Only 138 male respondents (31.40%) were participated in the survey. As a result, the proportion of female respondents is bigger than male respondents.

4.2.1.3 Ethnicity

Table 4.2.1.3.1: Descriptive Statistic for Respondents' Ethnicity

Ethnicity	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Chinese	412	93.6	412	93.6
Eurasian	1	0.2	413	93.9
Iban	1	0.2	414	94.1
Indian	21	4.8	435	98.9
Malay	1	0.2	436	99.1

Punjabi	1	0.2	437	99.3
Siamese	1	0.2	438	99.5
Sikh	1	0.2	439	99.8
UAE	1	0.2	440	100.0

Source: Obtained from SPSS

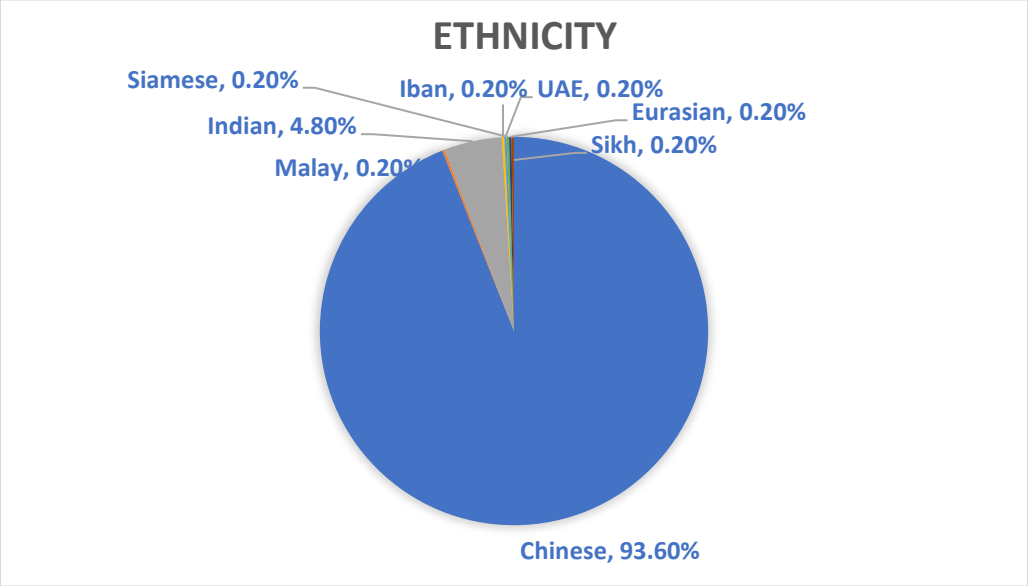

Figure 4.2.1.3.1: Descriptive Statistic for Respondents' Ethnicity

Table 4.2.1.3.1 and Figure 4.2.1.3.1 illustrated the proportion of each ethnic that participated in the survey. Majority of the respondents (93.6%) were Chinese, recorded 412 out of a total of 440 respondents. The second largest was Indian, 21 respondents equivalent to 4.80%. Malay (0.2%), Iban (0.2%), UAE (0.2%), Siamese (0.2%), Eurasian (0.2%), Sikh (0.2%), and Punjabi (0.2%), with only 1 respondent per ethnic.

4.2.1.4 Year of Study

Table 4.2.1.4.1: Descriptive Statistic for Respondents' Year of Study

Year	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Y1	284	64.5	284	64.5
Y2	76	17.3	360	81.8
Y3	77	17.5	437	99.3
Y4	3	0.7	440	100.0

Source: Obtained from SPSS

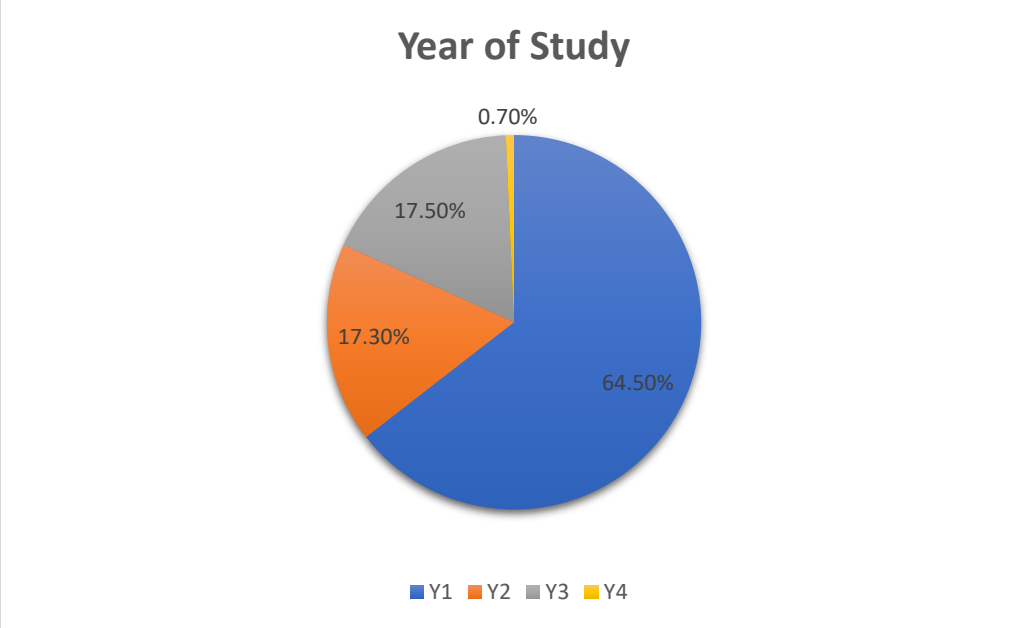

Figure 4.2.1.4.1: Descriptive Statistic for Respondents' Year of Study

Table 4.2.1.4.1 and Figure 4.2.1.4.1 demonstrated the year of study for respondents that participated in this study. The largest group of respondents was from Year 1, recorded 64.5%. The respondents from Year 2 and Year 3 have almost the same number of respondents, which are 77 respondents from Year 3 (17.5%) and 76 respondents from Year 2 (17.3%). The remaining 3 respondents were from Year 4, which equivalent 0.7%.

4.2.1.5 Programme of Study

Table 4.2.1.5.1: Descriptive Statistic for Respondents' Programme of Study

Programme	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Accounting	16	3.6	16	3.6
Advertising	7	1.6	23	5.2
Agricultural Science	1	0.2	24	5.5
Banking and Finance	16	3.6	40	9.1
Biomedical Science	19	4.3	59	13.4
Business Administration	40	9.1	99	22.5
Business Information Systems	6	1.4	105	23.9
Chinese Studies	6	1.4	111	25.2
Commerce	35	8.0	146	33.2
Accounting				
Communications and Networking	3	0.7	149	33.9
Computer Engineering	1	0.2	150	34.1
Computer Science	11	2.5	161	36.6
Dietetics	9	2.0	170	38.6
Digital Economy	5	1.1	175	39.8
Technology				
Electronic Engineering	9	2.0	184	41.8

English Language	3	0.7	187	42.5
Entrepreneurship	8	1.8	195	44.3
Environmental Engineering	2	.5	197	44.8
Finance	26	5.9	223	50.7
Financial Economics	26	5.9	249	56.6
Food Science	11	2.5	260	59.1
Foundation in Arts	45	10.2	305	69.3
Foundation in Science	24	5.5	329	74.8
Industrial Management	4	0.9	333	75.7
Information Systems Engineering	2	0.5	335	76.1
Logistics and International Shipping	2	0.5	337	76.6
Logistics and Supply Chain Management	45	10.2	382	86.8
Marketing	29	6.6	411	93.4
Master of Science	1	0.2	412	93.6
Psychology	21	4.8	433	98.4
Public Relations	6	1.4	439	99.8
Risk Management	1	0.2	440	100.0

Source: Obtained from SPSS

Table 4.2.1.5.1 demonstrated the programme of study for respondents who participated in the survey. There were 32 programmes gathered from the total of

440 respondents. The programme with the highest number of respondents were Logistics and Supply Chain Management and Foundation in Arts, which recorded 45 respondents (10.2%) for each programme. The third largest was Business Administration with a total of 40 respondents (9.1%), followed by Commerce Accounting with a total of 35 respondents (8.0%). Out of the total of 440 respondents, respondents who study Marketing course recorded 29 respondents which equal to 6.6%. The programme of Financial Economics and Finance have the same number of respondents which were 26 respondents (5.9%) for each programme. The programme of Foundation in Science, Psychology, and Biomedical Science recorded 24 respondents (5.5%), 21 respondents (4.8%) and 19 respondents (4.3%), respectively. Accounting and Banking and Finance programme have the same number of respondents, 16 respondents (3.6%) for each of the programme. In addition, Computer Science and Food Science programme also recorded same number of respondents which were 11 respondents (2.5%) for each of the programme. There were 9 respondents (2.0%) for each of the programme of Electronic Engineering and Dietetics, followed by Entrepreneurship with 8 respondents (1.8%), and Advertising with 7 respondents (1.6%). Besides, the programme of Business Information Systems, Chinese Studies, and Public Relations recorded the same number of respondents, which were 6 respondents (1.4%) for each of the programme. The number of respondents for Digital Economy Technology was 5 respondents (1.1%) while Industrial Management programme was 4 respondents (0.9%). Communications and Networking and English Language programme have recorded 3 respondents (0.7%) for each of the programme. Besides, 3 programme have recorded the same number of respondents, which were 2 respondents for each of the programme, namely Environmental Engineering (0.5%), Information Systems Engineering (0.5%), and Logistics and International Shipping (0.5%). Lastly, the lowest number of respondents were come from programme of Agriculture Science, Computer Engineering, Master of Science, and Risk Management, which recorded only 1 respondent (0.2%) for each of the programme.

4.2.2 Central Tendency Measurement of Questionnaire

In this section, means and standard deviation for each of the items in the questionnaire are generated using SPSS software. Mean is the average of a set of data. In this study, the mean values that close to 5 is defined as most of the respondents were agreed to the items. While mean values close to 1 meaning that most of the respondents were disagreed to the items (Hayes, 2023). Standard deviation is defined as a measurement on how far a data set deviates from its mean. A high standard deviation value means that the more dispersed of the data (Brown, 2023).

4.2.2.1 Stress

Table 4.2.2.1.1: Central Tendency Measurement of Stress

	Item	Mean	Standard Deviation
S1	I am always worried when faced with situations beyond my control.	3.48	0.971
S2	I am always afraid of my future.	3.38	1.081
S3	I fear I may not attain my goals.	3.58	0.975
S4	I am always unconfident about my ability to handle personal problems.	3.19	1.097
S5	I am not willing to eat or loss of appetite when I face problems.	2.82	1.141
S6	I have trouble relaxing.	2.73	1.134

Source: Obtained from SPSS

Table 4.2.2.1.1 shows the means and standard deviation of each item in the dependent variable, stress. S3 recorded the highest value of mean (3.58), followed by S1 (3.48), S2 (3.38), S4 (3.19), and S5 (2.82). The lowest mean

value was recorded for S6, which was 2.73. While for standard deviation, S1 has the lowest value which was 0.971. The second lowest was S3 (0.975), followed by S2 (1.081), S4 (1.097), and S6 (1.134). S5 has the highest value of standard deviation, which was 1.141.

4.2.2.2 Neuroticism

Table 4.2.2.2.1: Central Tendency Measurement of Neuroticism

	Item	Mean	Standard Deviation
N1	I consider myself a depressed person.	2.76	1.104
N2	I consider myself a person who gets nervous easily.	3.45	1.077
N3	I am a person who is easily disturbed.	3.29	1.065
N4	I consider myself a moody person.	3.23	1.096
N5	I get emotional ups and downs easily.	3.21	1.108
N6	I am easily irritated when things are out of my control.	3.27	1.111

Source: Obtained from SPSS

Table 4.2.2.2.1 illustrated the means and standard deviation for each item in the independent variable, neuroticism. According to the table, N2 has the highest mean value, which was 3.45, followed by N3 (3.29). The mean value for N6, N4 and N5 were 3.27, 3.23 and 3.21, respectively. The lowest mean value was for N1, which was 2.76. While for standard deviation, N3 (1.077) has the lowest standard deviation, followed by N2 (1.077). The standard deviation value for N4, N1 and N5 were 1.096, 1.104 and 1.108, respectively. N6 recorded the largest standard deviation value, which was 1.111.

4.2.2.3 Conscientiousness

Table 4.2.2.3.1: Central Tendency Measurement of Conscientiousness

	Item	Mean	Standard Deviation
C1	I always plan for my future.	3.33	1.006
C2	I always do things based on my plans.	3.29	1.026
C3	I always work hard for my job.	3.62	0.877
C4	I am responsible for my job.	3.92	0.827
C5	I always complete my tasks on time.	3.65	0.960
C6	I always make sure my schedules are organized.	3.45	0.982

Source: Obtained from SPSS

Table 4.2.2.3.1 demonstrated the means and standard deviation for each item in the independent variable, conscientiousness. Based on the table, C4 has the highest mean value, which is 3.92, followed by C5 with 3.65 of mean value. The mean values for C3, C6 and C1 were 3.62, 3.45 and 3.33, respectively. For the standard deviation, C4 recorded the lowest value which was 0.827. The second lowest standard deviation value was 0.877 for C3, followed by 0.960 for C5, 0.982 for C6, and 1.006 for C1. C2 recorded the highest value of standard deviation which was 1.026.

4.2.2.4 Self-Expectation

Table 4.2.2.4.1: Central Tendency Measurement of Self-Expectation

	Item	Mean	Standard Deviation
SE1	I get upset when things don't go as planned	3.44	0.990
SE2	I am afraid I won't live up to my own expectations.	3.54	1.010
SE3	I always feel that the results of my recent tests are imperfect.	3.37	1.024
SE4	I always strive to enhance my personal goals.	3.51	0.856
SE5	I always do an excellent job on the tasks assigned for the courses.	3.35	0.843

Source: Obtained from SPSS

Table 4.2.2.4.1 showed the means and standard deviation for each item in the independent variable, self-expectation. According to the table, SE2 has the highest mean value, which was 3.54. The second highest mean value was 3.51 for SE4, followed by SE1 (3.44), and SE3 (3.37). SE5 has the smallest mean value, which was 3.35. For the standard deviation, SE5 recorded the lowest value which was 0.843. The standard deviation for SE4, SE1 and SE2 were 0.856, 0.990 and 1.010, accordingly. SE3 recorded the largest standard deviation value, which was 1.024.

4.2.2.5 Parental-Expectation

Table 4.2.2.5.1: Central Tendency Measurement of Parental-Expectation

	Item	Mean	Standard Deviation
PE1	My parents expect me not to offend their opinion.	2.83	1.108
PE2	My parents expect me to get excellent performance in my studies.	3.10	1.090
PE3	My parents always expect me to have better performance than others.	2.88	1.188
PE4	My parents expect me to have a high-paying job in the future.	3.23	1.134
PE5	My parents are expecting me to pursue their ideal careers.	2.57	1.217
PE6	My parents expect me to behave maturely when away from home.	3.50	1.039

Source: Obtained from SPSS

Table 4.2.2.5.1 illustrated the means and standard deviation for each item in the independent variable, parental-expectation. Based on the table, the items that recorded highest mean value was PE6 with the mean value 3.50. The mean values for PE4, PE2, PE3 and PE1 were 3.23, 3.10, 2.88 and 2.83, respectively. While PE5 has the smallest mean value, which recorded 2.57. For the standard deviation, PE6 recorded the lowest value which was 1.039 among the six items. The following were PE2 (1.090), PE1 (1.108), PE4 (1.134), and PE3 (1.188). The highest value of standard deviation was 1.217 for PE5.

4.2.2.6 Social Influence

Table 4.2.2.6.1: Central Tendency Measurement of Social Influence

	Item	Mean	Standard Deviation
SI1	I often use social media to compare myself with others.	2.97	1.159
SI2	I have always relied on the media to get advice from other people on what I should do.	2.93	1.078
SI3	I care about how other people think of me.	3.42	1.125
SI4	I prefer to do what other people typically do.	2.96	1.049
SI5	I am easily affected by the different perspectives of the people around me.	3.24	1.037
SI6	I feel inferior to others who are more intelligent.	3.24	1.061

Source: Obtained from SPSS

Table 4.2.2.6.1 demonstrated the means and standard deviation for each item in the independent variable, social influence. According to the table, item with the largest mean value was SI3, which recorded 3.42. The second largest mean values were SI5 and SI6 which recorded 3.24, simultaneously. The other three items have a similar mean value, which were 2.97 for SI1, 2.96 for SI4, and the lowest was 2.93 for SI2. For standard deviation, the lowest value was 1.037 for SI5. The following items were SI4 (1.049), SI6 (1.061), SI2 (1.078) and SI3 (1.125). Among the six items, SI1 recorded the largest standard deviation value, which was 1.159.

4.2.2.7 Central Tendency Measurement for Variables

Table 4.2.2.7.1: Central Tendency Measurement for Variables

	Variable	Mean	Standard Deviation
Dependent Variable	Stress	3.1958	0.75285
Independent Variables	Neuroticism	3.2045	0.79995
	Conscientiousness	3.5428	0.67017
	Self-Expectation	3.4418	0.66468
	Parental-Expectation	3.0178	0.85843
	Social Influence	3.1277	0.81893

Source: Obtained from SPSS

Table 4.2.2.7.1 described the summary of central tendency measurement for the dependent and independent variables. The table shows that the dependent variable, stress, recorded a mean value of 3.1958, and standard deviation 0.75285. In between the five independent variables, conscientiousness has the highest mean value, which was 3.5428. The following were self-expectation (3.4418), neuroticism (3.2045) and social influence (3.1277). Parental-expectation recorded the smallest mean value of 3.0178. While for standard deviation, self-expectation recorded the lowest value of 0.66468, followed by conscientiousness (0.67017), neuroticism (0.79995), and social influence (0.81893). The highest standard deviation value was 0.85843 for parental-expectation.

4.3 Diagnostic Checking

4.3.1 Normality

4.3.1.1 Skewness and Kurtosis Assumption

In this study, the assumption of normality test determined by 2 approaches, which were value of skewness and kurtosis. If the sample size of the study consisted of more than 300 respondents, the skewness value that reported below -2 or above 2 can be considered as non-normality. While proper kurtosis that more than value 7 or less than -7 can be considered as non-normality.

Table 4.3.1.1.1: Normality Test

	Skewness	Kurtosis
Stress	-0.159	0.228
Neuroticism	-0.259	0.116
Conscientiousness	-0.122	0.080
Self-Expectation	-0.357	0.886
Parental-Expectation	-0.165	-0.179
Social Influence	-0.089	0.190

Source: Obtained from SPSS

The table 4.3.1.1.1 illustrated that the normality test for independent and dependent variables in the terms of skewness and kurtosis value. SPSS software reported that the skewness value for variables which were stress, neuroticism, conscientiousness, self-expectation, parental-expectation and social influence were -0.159, -0.259, -0.122, -0.357, -0.165 and -0.089 respectively. Since all the skewness values were in negative, the distribution was slight left-skewed. While the kurtosis values for the variables (stress, neuroticism, conscientiousness, self-

expectation, parental-expectation and social influence) were 0.228, 0.116, 0.08, 0.886, -0.179, and 0.19 respectively. Since the skewness and kurtosis value for all variables fulfilled the assumption of normality, therefore, the result can be concluded as normally distributed.

4.3.1.2 Quantile-Quantile (Q-Q) Plot

Q-Q plot had been applied in this study to determine the presence of normality. According to Huang et al. (2019), the normal distributed research can be proven when the Q-Q plot displayed on the 45-degree reference line in the graph.

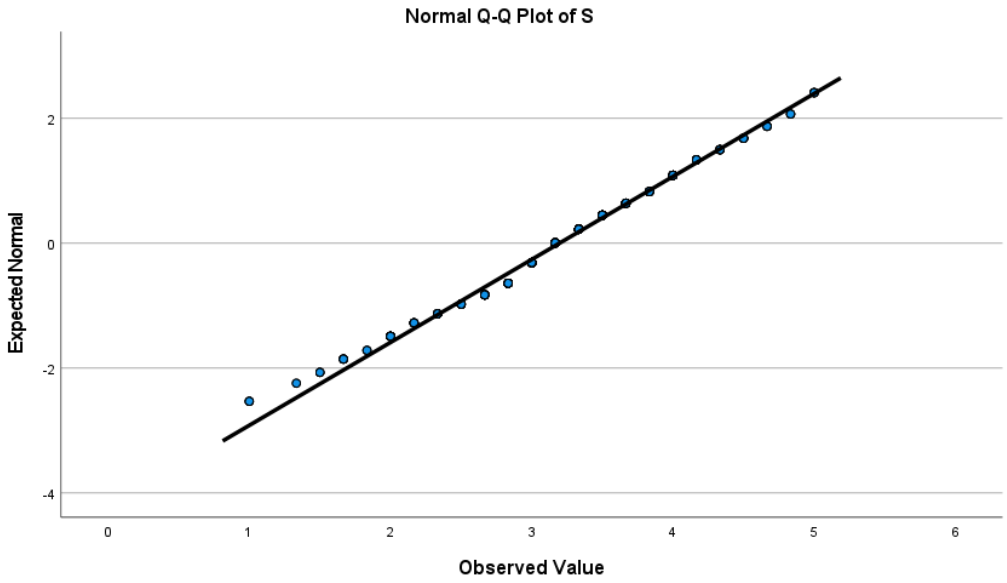

Figure 4.3.1.2.1: Q-Q Plot Distribution for Stress

Source: Obtained from SPSS

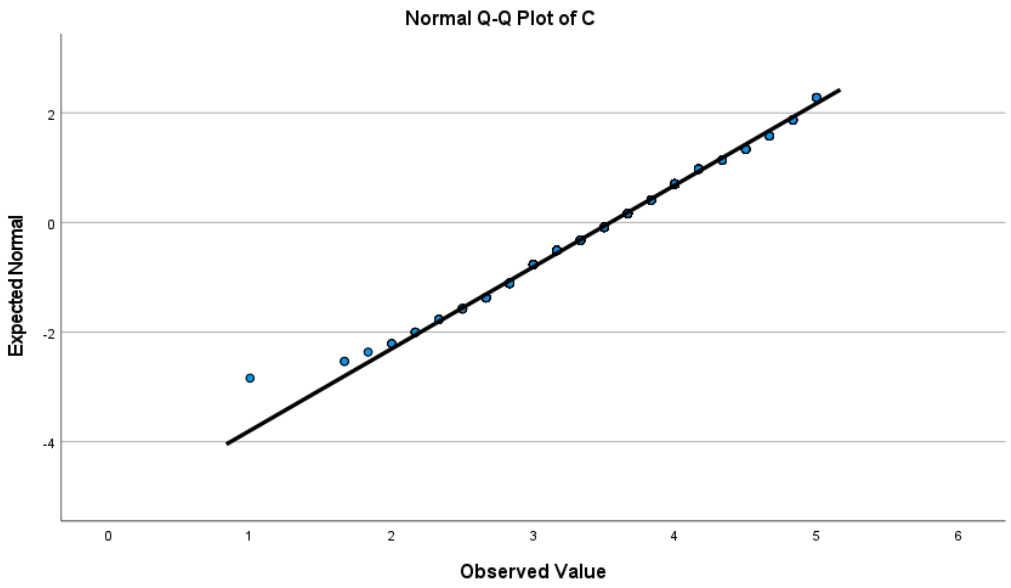

Figure 4.3.1.2.2: Q-Q Plot Distribution for Neuroticism

Source: Obtained from SPSS

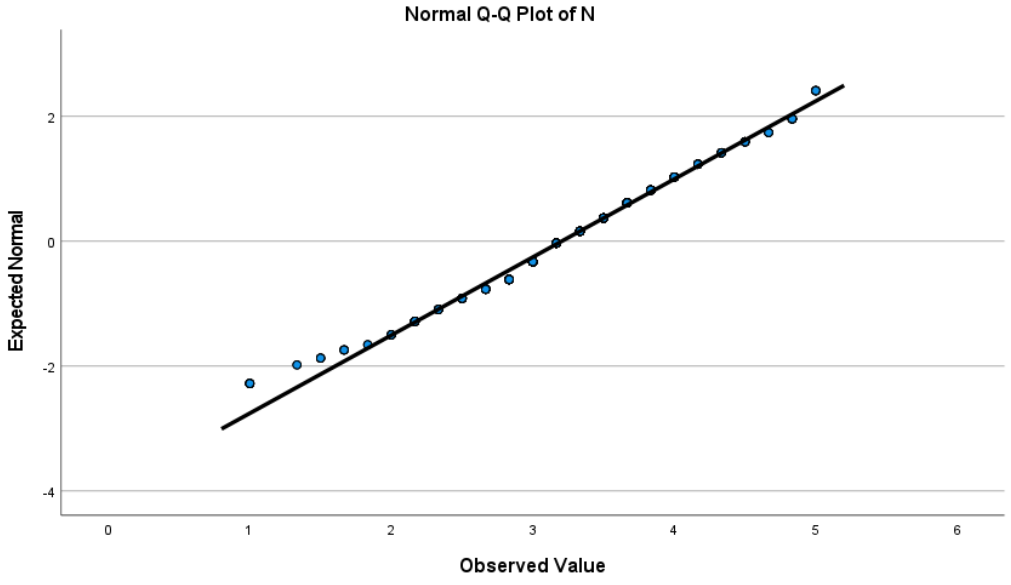

Figure 4.3.1.2.3: Q-Q Plot Distribution for Conscientiousness

Source: Obtained from SPSS

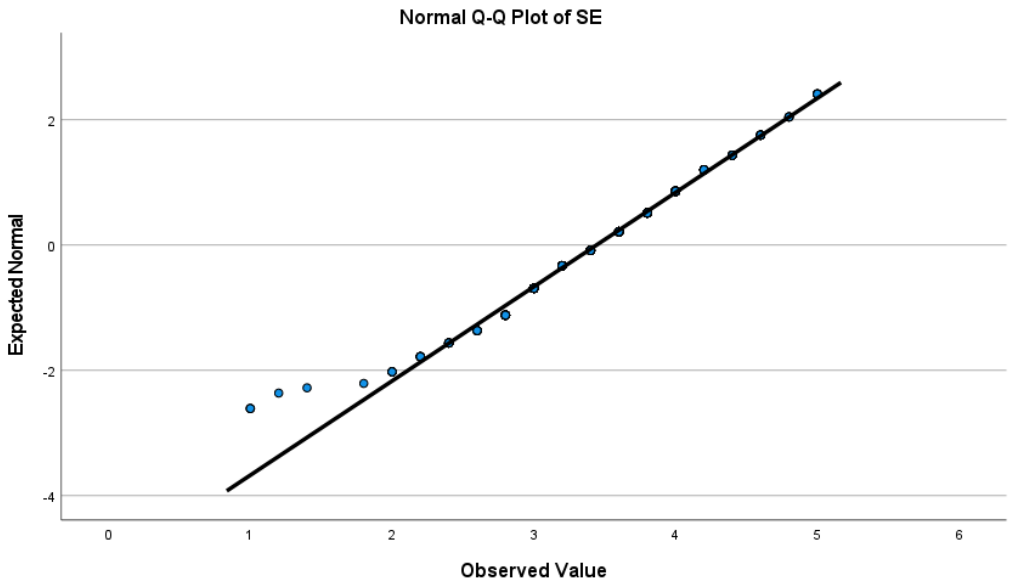

Figure 4.3.1.2.4: Q-Q Plot Distribution for Self-Expectation

Source: Obtained from SPSS

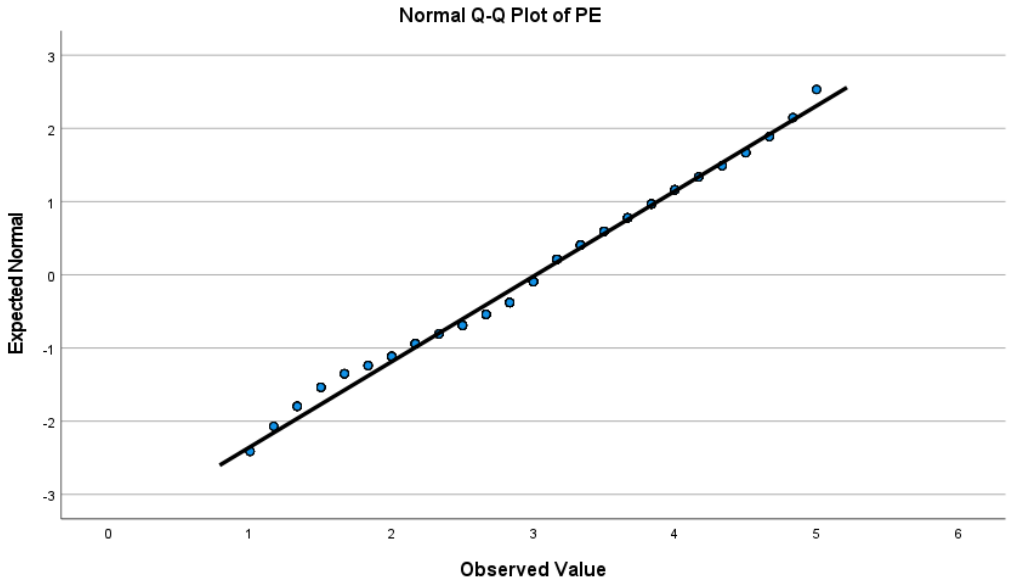

Figure 4.3.1.2.5: Q-Q Plot Distribution for Parental-Expectation

Source: Obtained from SPSS

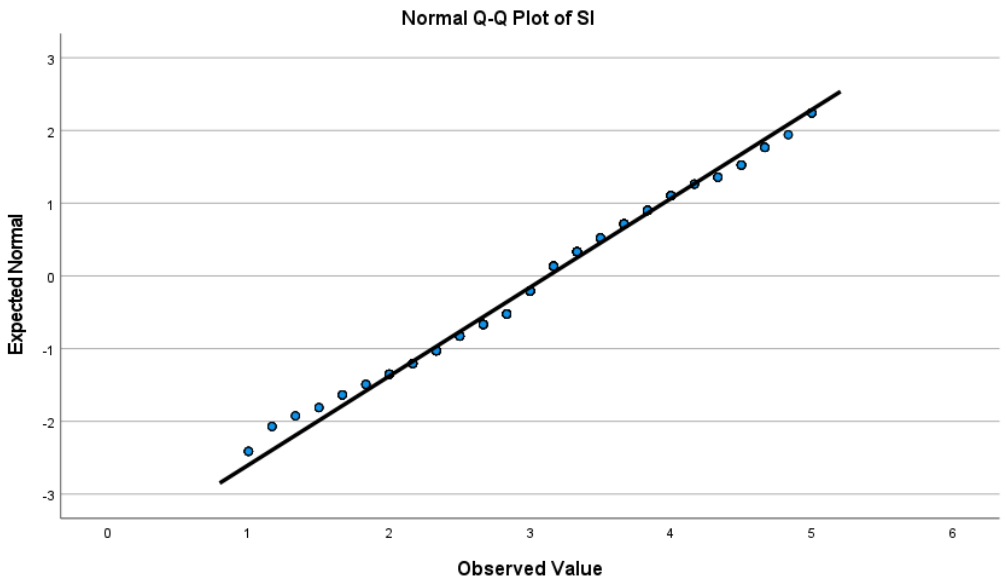

Figure 4.3.1.2.6: Q-Q Plot Distribution for Social Influence

Source: Obtained from SPSS

The Figure 4.3.1.2.1 illustrated that the Quantile-Quantile plot graph for independent variable, which is stress, indicated that the distribution is a better fit to the data set. While the Figure 4.3.1.2.2, 4.3.1.2.3, 4.3.1.2.4, 4.3.1.2.5, and 4.3.1.2.6 represented the Q-Q plot distribution graph for independent variables which were neuroticism, conscientiousness, self-expectation, parental-expectation and social influence respectively. The Q-Q plot graphs explained that the data plot scattered can be shown approximately in straight line, which the residual can be defined as normally distributed.

As conclusion, the dependent and independent variables in this study showed no violation towards the assumption of normality according to the results obtained through skewness values, kurtosis value and Q-Q plots from SPSS software. Therefore, the study can be concluded that all the variables were normally distributed.

4.3.2 Multicollinearity

In this study, VIF and tolerance value were utilized to detect the multicollinearity problem. The VIF score equal to 1 means no multicollinearity problem occurs in the regression. If the VIF score falls between 1 to 5, moderate correlation detected in the regression but is acceptable. However, if the VIF score is higher than 5 or the tolerance value is lower than 0.1 to 0.2, multicollinearity problem is detected in the regression model.

Table 4.3.2.1: Tolerance Value and Variance Inflation Factor (VIF)

	Collinearity Statistics	
	Tolerance	VIF
Neuroticism	0.632	1.583
Conscientiousness	0.796	1.256
Self-Expectation	0.586	1.707
Parental-Expectation	0.789	1.268
Social Influence	0.591	1.692

Source: Obtained from SPSS

According to Table 4.3.2.1, the VIF score for neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence were 1.583, 1.256, 1.707, 1.268 and 1.692, respectively. All the values were fall between 1 to 5 and were closed to 1, thus moderate correlation was detected between the independent variables and is acceptable. The tolerance value for neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence were 0.632, 0.796, 0.586, 0.789 and 0.591, accordingly. Since all the tolerance value were not lower than 0.2, no multicollinearity problem was detected. As a result, no multicollinearity problem exists in the regression.

4.3.3 Heteroscedasticity – Breusch Pagan Godfrey Test

Table 4.3.3.1: Summary of Breusch Pagan Godfrey

Heteroscedasticity Test: Breusch-Pagan-Godfrey ***H*0 = *Homoscedasticity*** ***H*1 = *Heteroscedasticity***	
F-statistic	**Prob, F**
1.718	0.129

Source: Obtained from SPSS

In this study, Breusch Pagan Godfrey test is a typical method to detect the heteroscedasticity problem. This study utilizes SPSS to generate P-value for heteroscedasticity testing purpose. A p-value that greater than 0.05 indicate that heteroscedasticity does not exist, while p-values less than 0.05 indicate the opposite. Based on the table above, the p-value (0.129) was greater than significant value at 0.05, the researchers will not reject the null hypothesis. As a result, there is a no heteroscedasticity problem exists.

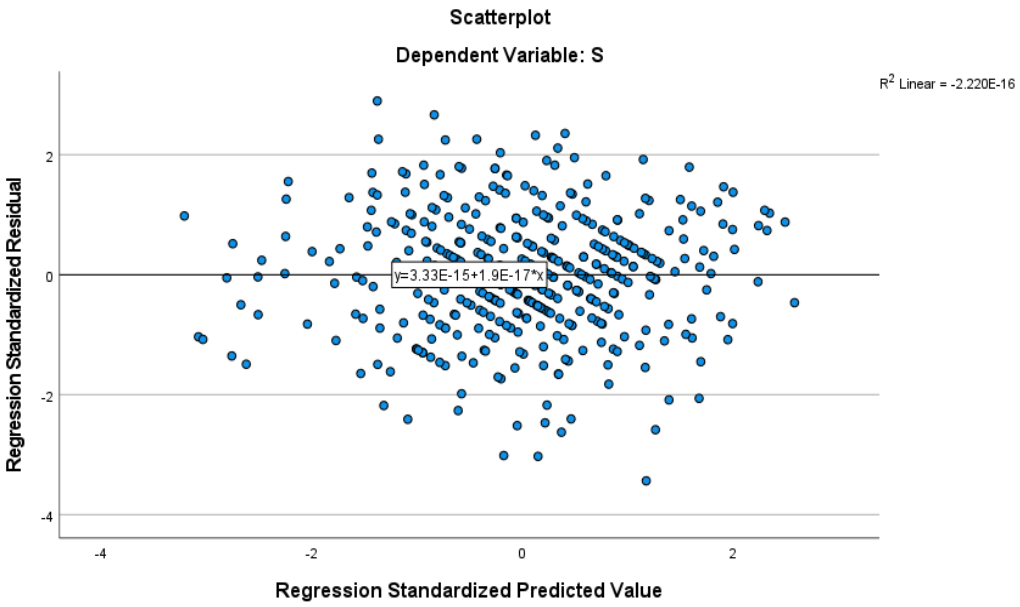

Figure 4.3.4.1: Scatterplot for Residuals

Source: Obtained from SPSS

In a regression model, heteroscedasticity occurs when the variance of the errors across independent variable levels not being constant. When the variance of error terms remains the same over all independent variables, the term homoscedasticity occurred. This assumption was met because the scatterplot displayed above indicates that the majority of residuals are clustered near zero or the horizontal line.

4.4 Inferential Analysis

4.4.1 Multiple Linear Regression Research Model

Table 4.4.1.1: Summary of Multiple Linear Regression Coefficients

Variables	MLS Result
Constant	0.797
	(0.000)*
Neuroticism	0.499
	(0.000)*
Conscientiousness	-0.107
	(0.012)*
Self-Expectation	0.097
	(0.004)*
Parental-Expectation	0.186
	(0.000)*
Social Influence	0.079
	(0.051)

** Coefficient is significant at 5% significance level*

Source: Obtained from SPSS

Stress = 0.797 + 0.499 (Neuroticism) – 0.107 (Conscientiousness) + 0.097 (Self-Expectation) + 0.186 (Parental-Expectation) + 0.079 (Social Influence)

In this study, Multiple Linear Regression (MLR) is used to analyses the presence of significant relationship between the five independent variables (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) and dependent variable (stress among UTAR students) which also the constant. The table shows that social influence has the p-value of 0.051

which is greater than significant value at 0.05, this indicated that there is no significant relationship between stress among UTAR students and social influence. Hence, the researchers do not reject the null hypothesis. However, the remaining four factors' p-value was smaller than significant value at 0.05, indicate that there is significant relationship between neuroticism, conscientiousness, self-expectation, parental-expectation, and stress among UTAR students. Thus, the null hypothesis has been rejected. Based on the MLS result, neuroticism, self-expectation and parental-expectation have positive relationship with stress, while conscientiousness has negative relationship with stress.

Table 4.4.1.2: Regression Statistics of Multiple Linear Regression

Regression statistics	
Multiple R	0.712
R square	0.507
Adjusted R-square	0.501
F-statistic	89.170
Prob (F-statistic)	0.000*

** P-value is significant at 5% significance level*

Source: Obtained from SPSS

In this study, researchers using Adjusted R-squared to determines whether a regression model is well fitted. The dependent variable (stress) that used in this study is quantified by the proportion of the variance that can be explained by the study's independent variables (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) that included in the regression equation. Adjusted R-squared ranges from 0 to 1, just like the regular R-squared. Accordingly, the independent variables explain a greater portion of the variation in the dependent variable (Team, 2020). From the table above, an Adjusted R-squared value of 0.501 in a multiple linear regression model indicates that approximately 50.1% of the variability in the stress is explained by the

neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence included in the model. It indicates that the model has a moderate fit to the data. The results suggest that the model has some predictive power and explains a considerable portion of the dependent variable's variability in the study. Furthermore, the F-test is employed to ascertain if the regression model effectively accounts for the variability observed in the dependent variable. As shown in the table above, F-statistic (89.170) exceeds critical value (2.21), and the p-value (0.000) is below significant level (0.05). Hence, the researchers reject the null hypothesis. The results therefore show the model is significant to explain the stress among UTAR students in Malaysia.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.1 Statistical Summary

The target population for this study is mainly focus on the UTAR students in Malaysia. According to the data collected and the result generated from SPSS software, the independent variables which are neuroticism, conscientiousness, self-expectation, and parental-expectation illustrated that there were significantly affect the dependent variable, stress among UTAR students in Malaysia. While the result obtained for social influence factor showed insignificant impact on the stress among UTAR students in Malaysia.

Table 5.1.1 Hypothesis Testing Result

	Hypothesis Testing	Coefficient value	P value	Result
H1	Neuroticism significantly affect stress among UTAR students in Malaysia	0.499	0.000	Significant
H2	Conscientiousness significantly affect stress among UTAR students in Malaysia	-0.107	0.012	Significant
H3	Self-expectation significantly affect stress among UTAR students in Malaysia	0.097	0.004	Significant
H4	Parental-expectation significantly affect stress among	0.186	0.000	Significant

	UTAR students in Malaysia			
H5	Social influence significantly affect stress among UTAR students in Malaysia	0.079	0.051	Insignificant

5.2 Discussion on Major Finding

5.2.1 Neuroticism significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 1 was accepted for the present study. The result explained that neuroticism has significantly affected the stress among UTAR students in Malaysia, with a positive relationship. The higher the neuroticism level, the higher the stress level. This result is consistent with the past studies that discussed in the literature review. A high neuroticism person means that the person emotion is instability and tend to negative emotion when experience uncontrollable situation or stress. This result was same with the finding found by Yang & Koo (2022) in which neuroticism was significantly related with negative emotional states such as depression and anxiety. University students in Taiwan with high level of neuroticism (high emotional instability) tend to be faced negative emotion compared with students with low level of neuroticism. This finding supported by the article in which high neuroticism person would be more likely to experience academic stress and thus causes depression (Valencia & Christian, 2022). High neuroticism people difficult to adapt stress due to low emotional control and more sensitive to stress. People that experience academic stress with few coping strategies will lead to depression. As a result, high neurotic person tends to be experience high level of stress.

5.2.2 Conscientiousness significantly affect stress among UTAR students in Malaysia

Table 5.1.1 illustrated that the hypothesis 2 was accepted for the present study. According to the table, the result illustrated that conscientiousness has significant influence the stress among UTAR students with a negative relationship. The higher the conscientiousness level, the lower the stress level among UTAR students. Some of the past studies has supported this finding. Liu et al. (2023) has found that conscientiousness has significant and negative relationship with university students' anxiety level. People with high level of conscientiousness has high self-regulation to take effective coping strategies when facing stressful situations. Thus, lower the stress level and reduce the possibility of anxiety. This finding supported by the article in which conscientiousness negatively correlated with stress due to the characteristic of high self-regulation (Luo et al., 2023). People with high conscientiousness have the ability to protect themselves from the stressful situations through their preventive behaviours. Moreover, conscientiousness' person has the ability to control emotion, responsible, and hardworking could manage themselves during stressful situations and absorbed the stress to become successful. However, Lin et al. (2014) found that high conscientiousness person may tend to anxiety and fatigue. A conscientiousness person might put too much effort or resources to achieve high job or academic performance. If the person depleted his/her resources, this would lead to higher stress. Thus, a significant and negative relationship has been shown between conscientiousness and stress among UTAR students in this study.

5.2.3 Self-expectation significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 3 was accepted for the present study. There was positively significant relationship and between self-expectation and stress among UTAR students in Malaysia. The higher level of self-expectation, the higher the stress level. This result is consistent with the past studies that discussed in the literature review. Pinquart & Ebeling (2020) found that higher self-expectations are expected to lead an individual to have a perfectionistic striving for academic performance. When people set high standards and goals for themselves, it can motivate them to work hard and achieve their aspirations. However, if these self-expectations become unrealistic or unattainable, they can contribute to increased stress levels. People might feel constant pressure to meet their own high standards, and the fear of failure or falling short of their self-imposed goals can lead to stress and anxiety. High-achieving individuals may therefore be at exceptionally high risk for these experiences.

5.2.4 Parental-expectation significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 4 was accepted for the present study. The result shows that parental-expectation has significant and positively influencing stress among UTAR students in Malaysia. The higher level of parental-expectation, the higher the stress level of student academic performance. This outcome aligns with the previous research mentioned in the literature review. According to Sarma (2014) support that parental-expectations will directly affect their children’s academic stress and further cause depression. When parents set high or unrealistic expectations for their children's academic

success or career paths, it can create significant pressure on the students to meet those expectations. This pressure can lead to increased stress levels as students may feel the need to constantly perform well and fear disappointing their parents. Tangade et al. (2011) discovered that students who were compelled by their parents to select their future professions exhibited elevated levels of stress. Consequently, uncontrolled parental-expectations can lead to an overbearing parental presence in their children's lives. This circumstance can result in students being resistant to parental interference and experiencing heightened stress levels.

5.2.5 Social Influence insignificantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 5 was rejected for the present study. There was insignificant relationship between social influence and stress among UTAR students in Malaysia. This result is consistent with the past studies that discussed in the literature review. According to Telzer et al. (2018), social influences may affect positive and negative adjustment among adolescents. Positive social influence can motivate students to perform better academically and engage more actively in their studies. Healthy competition among peers can encourage students to strive for excellence and achieve their goals. Choukas-Bradley et al. (2015) found that peer influence is not necessarily a negative phenomenon, as it can also help explain how individuals adopt positive or adaptive behaviours. Peer pressure can also become a method of improving students' performance early in their college education. In spite of this, some university students believe that peer influence has negative effects. There is a possibility that these students might be under pressure to follow their peers' expectations and actions, which may lead to them taking on risky behaviours or actions that induce stress. The constant comparison to peers and the pressure to outperform them can create unhealthy competition and exacerbate stress.

Students may feel inadequate or stressed if they perceive others as more successful. However, as the results of this study showed that social influence had an insignificant effect on stress, they were similar to Rodriguez et al. (2003), which showed that social influence did not have any significant relationship with a person's stress level. Consequently, there are different perspectives from previous research on the relationship between social influence and stress. As a result, it is reasonable to suppose an insignificant relationship between social influence and stress among UTAR students.

5.3 Implication of Study

Implication of this research assist a better understanding on the factors influencing stress among UTAR students in Malaysia.

5.3.1 Theoretical Implications

James Lange theory was utilized to explain the relationship between neuroticism and stress. Sincero (2023) prove that the theory suggests that altering physiological responses could potentially influence emotional experiences, including the experience of stress. As per this theory, an individual's particular emotional experience is shaped by how they interpret the level of arousal, and this interpretation can be influenced by their previous experiences, cognitive processes, and emotional states. An individual with the characteristic of neuroticism, which is negative emotions, tends to be more stressed when facing difficulty (Kiziloglu & Karabulut 2023). According to Liu et al. (2021) indicates that high neuroticism people tend to have higher stress level. The high-stress level may cause people to experience negative emotions, anxiety, or depression, leading to poor performance. By utilizing the James-

Lange theory in this research, a clearer comprehension of the connection between neuroticism and stress can be achieved. Furthermore, this theory provides researchers with insights into how neuroticism can impact an individual's stress levels. Consequently, these findings offer direction for future investigations into the James-Lange Theory, suggesting that by mastering the regulation of physiological responses, individuals could potentially reduce the intensity of their adverse emotions.

Transactional Theory of Stress and Coping was utilized in this study to explain the relationship between conscientiousness and stress. According to this theory, stress emerges from a continuous interaction between an individual and their surroundings, wherein the individual's assessment of the circumstances and their coping mechanisms are of paramount importance. According to the Bartley & Roesch (2011), a high conscientiousness person using more problem-focus coping strategy as a protective from stress. The theory indicates that conscientious individuals may approach stressors with a proactive and organized mindset, emphasizing problem-focused coping strategies. However, their strong sense of responsibility and anticipation of potential stressors can also contribute to increased stress levels, particularly if they perceive their ability to meet their responsibilities is compromised. The relationship between conscientiousness and stress depends on how individuals appraise stressors, the coping strategies they employ, and the support systems available to them. By utilizing the Transactional Theory of Stress and Coping within this research, a deeper comprehension of how conscientiousness is linked to stress can be achieved. Furthermore, this theory provides researchers with insight into the impact of conscientiousness on an individual's stress level. As a result, this finding offers direction for future studies exploring the Transactional Theory of Stress and Coping within comparable contexts.

The principle of Expectancy Value Theory was utilized in this study to elaborate the relationship between self-expectation and stress. This theory is applied to

describe how an individual's beliefs about their expectancies and value to specific outcomes influence their motivation, decision-making, and attitudes towards their behaviour or performance. The Theory proposes that individuals believe that high expectancy tend to have the high subjective value to perform the performance. Rodriguez (2009) shows that students can self-impose these expectations with increasing attention to promote high levels of academic performance and self-expectations among higher educational students. However, the desire to meet high expectations can sometimes manifest as perfectionism, where students believe that anything less than perfect is unacceptable. According to Hope et al. (2013) have indicated that self-expectation and academic achievement significantly affect different conditions under anxiety, depressive symptoms, and perceived stress. By applying theory of Expectancy Value in this study, the concept of self-expectation related to stress can be defined better. Also, this theory provided the researchers a viewpoint on how self-expectations can affect individual’s stress level. Thus, this result can be used as a guidance for further study or research on Expectancy Value Theory that utilized the similar variables.

The Theory of Social Stress can be explained as social stress can be developed through the external factors. This theory proposes that an individual's stress experiences can be notably influenced by the social environment, encompassing interpersonal interactions, societal norms, and cultural elements. When applied to students, the social stress theory helps explain how social influences impact their stress levels, particularly in the context of academic environments. Students often engage in social comparison, where they assess their abilities and achievements in relation to their peers. Academic environments can foster competition and comparison, leading students to feel pressured to meet or exceed their peers' achievements. This can result in heightened stress as they strive to maintain a certain image or level of achievement. According to Chen & Deng (2022b), students may compare themselves to their peers, leading to feelings of inadequacy or low self-esteem. Based on current study, social

influence is positive effect on stress among UTAR students. This indicates that students may feel pressure to conform to the expectations and behaviours of their peers. The theory underscores the importance of considering the social context in understanding students' stress experiences. Hence, this theory is suggested for the future researchers who are interested to investigate on social influence and stress.

5.3.2 Practical Implications

The current research found that neuroticism is significant and positively related to stress among UTAR students in Malaysia. This show that the higher level of neuroticism may lead to higher level of stress among UTAR students. According to Kiziloglu & Karabulut (2023), it indicates that an individual experiencing negative emotions could treat the stressors as more threatening or demanding than they are, resulting in elevated levels of stress. High neuroticism people tend to perceive a wider range of situations as stressful. They might interpret everyday challenges, academic demands, and social interactions as more threatening or burdensome, leading to an increased sense of stress. Therefore, people could recognize own neurotic tendencies and proactively engage in stress management techniques such as mindfulness, exercise, and relaxation to mitigate the impact of stress. Furthermore, people could engage in activities that foster resilience, such as participating in clubs, sports, or hobbies, to help manage stressors and build a stronger emotional foundation.

Conscientiousness has found to be negative significant relationship toward stress among UTAR students. This result shows that high conscientiousness can lead to less negative impact, thereby reducing the negative impact of stressors. Conscientiousness is associated with effective coping methods, such as problem-solving and seeking assistance from others. These strategies can mitigate the impact of stressors and help individuals manage stress more

effectively. High conscientiousness with high awareness of the stressful situation can help an individual to perform well by adapting to the stress. Consequently, individual can leverage their organizational skills to create effective schedules and prioritize tasks, reducing the likelihood of feeling overwhelmed by stressors. By refraining from overcommit oneself, acquiring the ability to assign tasks and cooperate with colleagues. This help to mitigation of assuming excessive obligations and encountering stress. Through comprehension of conscientiousness, individuals can utilize the positive aspects of this characteristic, while also tackling potential issues like perfectionism and taking on too much. Striking a balance between conscientious endeavors, self-care, and adaptability can contribute to enhanced productivity, fulfillment, and overall well-being.

This research was proving that self-expectation and parental expectation were significantly affected the stress among UTAR students. Students with high self-expectations might adopt a perfectionistic mindset, where they feel that anything less than perfection is unacceptable. Striving for perfection can lead to chronic stress, as they are always trying to meet an impossibly high standard. When parents have high expectations for their children's academic success, students might feel pressure to meet or exceed these expectations. The fear of disappointing their parents can lead to chronic stress as they strive to live up to these standards. Therefore, people may use this study as a principle to guide students in creating a balanced schedule that allows time for academic pursuits, self-care, relaxation, and social activities. In addition, students should pay more attention on making decisions that align with their own interests and passions, even if they differ from their parents' expectations. This can ensure that students are equipped to manage stress and navigate the challenges of academic life.

5.4 Limitations of Study

In this study, various limitations have been identified and acknowledged. The sampling frame chosen was Malaysia universities students while this study only focuses on UTAR students. Respondents from other universities or colleges were not obtained for this study. Therefore, the result of this study might not be suitable to represent the factors that affect stress level among universities or colleges students in Malaysia.

Besides, this study has utilized quantitative method to collect the data based on survey questionnaire. The benefits of this method are to collect respondents' social characteristics, attitudes, behaviour, views and reason for action toward the purpose of a research (Bulmer, 2004). However, people's views may change over the time, influenced by their experiences and attitudes. As a result, the respondents' perspective on the factors affecting the stress level might change, and the result could be less accurate in the future.

Last but not least, this study has utilized a non-probability sampling method which is convenience sampling method. Due to the limited time for this study, this sampling method can benefit the researchers to gather information and data in a shorter time and lesser costs. Thus, this study may only have collected the perspectives of some UTAR students, but not all UTAR students. Therefore, the result of this study might be less accurate in explaining the relationship between the factors affecting stress level among UTAR students.

5.5 Recommendations

Due to the limited resources and time constraint, this study only utilized convenience sampling in collecting the perspective from respondents in UTAR Kampar campus. The convenience sampling not only could help to reduce the time and cost consumption, the researchers also could gather the viewpoints from certain area's respondents. However, convenience sampling unlike probability sampling which selected randomly, is unable to obtain the result could represent the whole population. According to Pace (2021), the probability sampling is a method that provided the equal chances for the respondents from population based on the randomised principle. Therefore, the future researchers should obtain more accurate data by utilizing probability sampling method to gather all the responses from the population, and randomly selected from the responses. The results that using the probability sampling method can be more representative. Since the study only concentrated in Universiti Tunku Abdul Rahman students, the future researchers should enhance the target population to other universities that located in Malaysia, to improve the result and quality of the study in understanding the factor that affecting stress among university students.

In addition, this study employs a quantitative approach by sharing the survey form to the target respondents. The questionnaire the researchers constructed was limited to a few scale points. Future researchers should expand the scope of responses, such as providing answer space for responses or open-ended questions to express their own views and ideas. Not only that, but researchers should improve behavioural studies by involving some respondents using physical platforms such as interview sessions. This approach could help researchers gain a deeper understanding of respondents' emotions and reactions when they answered stress-related questions. Since research can only capture recent feelings and opinions of all respondents, future researchers should always update status by capturing responses from respondents over time.

5.6 Conclusion

This study aimed to investigate the factors that affected the stress among Universiti Tunku Abdul Rahman (UTAR) students in Malaysia. Ultimately, the result of this study had supported four hypotheses which are H_1 neuroticism, H_2 conscientiousness, H_3 self-expectation and H_4 parental-expectation significantly affected the stress among UTAR students. However, the results of this study also demonstrated that the social influence had no significant effect on the stress of UTAR students. The determinants that causing stress among the university students had been comprehensively explored in this study, and figured out the aspects from personality traits, expectations, and social influences. Although this study has limitation in the ability of the researchers and the selection of the target population, this study still can be utilized as a reference for the future researchers to have further investigation on the factors that influence other university students with different cultures and learning status in Malaysia.

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APPENDICES

Appendix 1.1: Survey Questionnaire

AN INVESTIGATION ON FACTORS INFLUENCING STRESS AMONG UTAR STUDENTS IN MALAYSIA

Dear respondents,

We are final year undergraduate students of Bachelor of Economics (Hons) Financial Economics from Universiti Tunku Abdul Rahman (UTAR). The purpose of this study is to determine the potential factors that lead to stress in UTAR students in Malaysia. Please do not hesitate to contact us at shuhua.chong@1utar.my or you may reach our supervisor, Mr. Kuar Lok Sin (kuarls@utar.edu.my) for further information. Thank you for your participation.

Best regards,

Loh Wei Zhen	20ABB05481	weizhenloh@1utar.my
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Chong Shu Hua	21ABB00288	shuhua.chong@1utar.my

PERSONAL DATA PROTECTION STATEMENT

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

Notice:

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

- For assessment of any application to UTAR
- For processing any benefits and services
- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

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

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

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

Consent:

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

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

3. You may access and update your personal data by writing to us at shuhua.chong@1utar.my.

Acknowledgment of Notice

[ ] I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

[ ] I disagree, my personal data will not be processed.

……

Name:

Date:

Section A (Demographic)

This section collects respondents' demographics information in this study. Please tick on the appropriate box or fill in the blank for each question.

DE1 What is your age?

DE2 What is your gender?

Male	
Female	

DE3 What is your ethnicity?

Malay	
Chinese	
Indian	
Other (please specify)	

DE4 What is your current year of study? (Eg. Y1S1)

DE5 What is your programme of study? (Eg. Financial Economics)

Section B (Stress)

This section collects information regarding respondents' opinion on stress. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
S1	I am always worried when faced with situations beyond my control.	1	2	3	4	5
S2	I am always afraid of my future.	1	2	3	4	5
S3	I fear I may not attain my goals.	1	2	3	4	5
S4	I am always unconfident about my ability to handle personal problems.	1	2	3	4	5
S5	I am not willing to eat or loss of appetite when I face problems.	1	2	3	4	5
S6	I have trouble relaxing.	1	2	3	4	5

Section C (Neuroticism)

This section collects information regarding respondents' opinion on neuroticism. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
N1	I consider myself a depressed person.	1	2	3	4	5
N2	I consider myself a person who gets nervous easily.	1	2	3	4	5
N3	I am a person who is easily disturbed.	1	2	3	4	5
N4	I consider myself a moody person.	1	2	3	4	5
N5	I get emotional ups and downs easily.	1	2	3	4	5
N6	I am easily irritated when things are out of my control.	1	2	3	4	5

Section D (Conscientiousness)

This section collects information regarding respondents' opinion on conscientiousness. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
C1	I always plan for my future.	1	2	3	4	5
C2	I always do things based on my plans.	1	2	3	4	5
C3	I always work hard for my job.	1	2	3	4	5
C4	I am responsible for my job.	1	2	3	4	5
C5	I always complete my tasks on time.	1	2	3	4	5
C6	I always make sure my schedules are organized.	1	2	3	4	5

Section E (Self-expectation)

This section collects information regarding respondents' opinion on self-expectation. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
SE1	I get upset when things don't go as planned.	1	2	3	4	5
SE2	I am afraid I won't live up to my own expectations.	1	2	3	4	5
SE3	I always feel that the results of my recent tests are imperfect.	1	2	3	4	5
SE4	I always strive to enhance my personal goals.	1	2	3	4	5
SE5	I always do an excellent job on the tasks assigned for the courses.	1	2	3	4	5

Section F (Parental Expectation)

This section collects information regarding respondents' opinion on parental-expectation. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
PE1	My parents expect me not to offend their opinion.	1	2	3	4	5
PE2	My parents expect me to get excellent performance in my studies.	1	2	3	4	5
PE3	My parents always expect me to have better performance than others.	1	2	3	4	5
PE4	My parents expect me to have a high-paying job in the future.	1	2	3	4	5
PE5	My parents are expecting me to pursue their ideal careers.	1	2	3	4	5
PE6	My parents expect me to behave maturely when away from home.	1	2	3	4	5

Section G (Social Influence)

This section collects information regarding respondents' opinion on social influence. Please select the most appropriate answer for each question, from 1 for 'strongly disagree' to 5 for 'strongly agree'.

	Question	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
SI1	I often use social media to compare myself with others.	1	2	3	4	5
SI2	I've always relied on the media to get advice from other people on what I should do.	1	2	3	4	5
SI	I care about how other people think of me.	1	2	3	4	5
SI4	I prefer to do what other people typically do.	1	2	3	4	5
SI5	I am easily affected by the different perspective of the people around me.	1	2	3	4	5
SI6	I feel inferior to others who are more intelligent.	1	2	3	4	5

Appendix 1.2: Reliability Test Analysis Results for Pilot Test and Actual Test

SPSS result (Stress) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.856	6

SPSS result (Stress) for Cronbach's Alpha – Actual Test

Reliability Statistics

Cronbach's Alpha	N of Items
.797	6

SPSS result (Neuroticism) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.820	6

SPSS result (Neuroticism) for Cronbach's Alpha – Actual Test

Reliability Statistics

Cronbach's Alpha	N of Items
.826	6

SPSS result (Conscientiousness) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.763	6

SPSS result (Conscientiousness) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.799	6

SPSS result (Self-expectation) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.834	5

SPSS result (Self-expectation) for Cronbach's Alpha – Actual Test

Reliability Statistics

Cronbach's Alpha	N of Items
.742	5

SPSS result (Parental-expectation) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.877	6

SPSS result (Parental-expectation) for Cronbach's Alpha – Actual Test

Reliability Statistics

Cronbach's Alpha	N of Items
.853	6

SPSS result (Social Influence) for Cronbach's Alpha – Pilot Test

Reliability Statistics

Cronbach's Alpha	N of Items
.887	6

SPSS result (Social Influence) for Cronbach's Alpha – Actual Test

Reliability Statistics

Cronbach's Alpha	N of Items
.848	6

Appendix 1.3: Descriptive Analysis Results

SPSS result for descriptive statistic of respondents' age

DE1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	22	5.0	5.0	5.0
	19	117	26.6	26.6	31.6
	20	108	24.5	24.5	56.1
	21	115	26.1	26.1	82.3
	22	41	9.3	9.3	91.6
	23	24	5.5	5.5	97.0
	24	12	2.7	2.7	99.8
	25	1	.2	.2	100.0
	Total	440	100.0	100.0	

SPSS result for descriptive statistic of respondents' gender

DE2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	302	68.6	68.6	68.6
	Male	138	31.4	31.4	100.0
	Total	440	100.0	100.0	

SPSS result for descriptive statistic of respondents' ethnicity

DE3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	412	93.6	93.6	93.6
	Eurasian	1	.2	.2	93.9
	Iban	1	.2	.2	94.1
	Indian	21	4.8	4.8	98.9
	Malay	1	.2	.2	99.1
	Punjabi	1	.2	.2	99.3
	Siamese	1	.2	.2	99.5

	Sikh	1	.2	.2	99.8
	UAE	1	.2	.2	100.0
	Total	440	100.0	100.0	

SPSS result for descriptive statistic of respondents' year of study

DE4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Y1	284	64.5	64.5	64.5
	Y2	76	17.3	17.3	81.8
	Y3	77	17.5	17.5	99.3
	Y4	3	.7	.7	100.0
	Total	440	100.0	100.0	

SPSS result for descriptive statistic of respondents' programme of study

DE5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accounting	16	3.6	3.6	3.6
	Advertising	7	1.6	1.6	5.2
	Agricultural Science	1	.2	.2	5.5
	Banking and Finance	16	3.6	3.6	9.1
	Biomedical Science	19	4.3	4.3	13.4
	Business Administration	40	9.1	9.1	22.5
	Business Information Systems	6	1.4	1.4	23.9
	Chinese Studies	6	1.4	1.4	25.2
	Commerce Accounting	35	8.0	8.0	33.2
	Communications and Networking	3	.7	.7	33.9
	Computer Engineering	1	.2	.2	34.1
	Computer Science	11	2.5	2.5	36.6
	Dietetics	9	2.0	2.0	38.6
	Digital Economy Technology	5	1.1	1.1	39.8
	Electronic Engineering	9	2.0	2.0	41.8
	English Language	3	.7	.7	42.5

	Entrepreneurship	8	1.8	1.8	44.3
	Environmental Engineering	2	.5	.5	44.8
	Finance	26	5.9	5.9	50.7
	Financial Economics	26	5.9	5.9	56.6
	Food Science	11	2.5	2.5	59.1
	Foundation in Arts	45	10.2	10.2	69.3
	Foundation in Science	24	5.5	5.5	74.8
	Industrial Management	4	.9	.9	75.7
	Information Systems Engineering	2	.5	.5	76.1
	Logistics and International Shipping	2	.5	.5	76.6
	Logistics and Supply Chain Management	45	10.2	10.2	86.8
	Marketing	29	6.6	6.6	93.4
	Master of Science	1	.2	.2	93.6
	Psychology	21	4.8	4.8	98.4
	Public Relations	6	1.4	1.4	99.8
	Risk Management	1	.2	.2	100.0
	Total	440	100.0	100.0	

SPSS result for descriptive statistic of items in questionnaire

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
S1	440	1	5	3.48	.971	.943	-.461	.116	.040	.232
S2	440	1	5	3.38	1.081	1.169	-.408	.116	-.459	.232
S3	440	1	5	3.58	.975	.950	-.632	.116	.181	.232
S4	440	1	5	3.19	1.097	1.204	-.105	.116	-.769	.232
S5	440	1	5	2.82	1.141	1.302	.070	.116	-.787	.232
S6	440	1	5	2.73	1.134	1.286	.145	.116	-.682	.232
N1	440	1	5	2.76	1.104	1.220	.132	.116	-.567	.232
N2	440	1	5	3.45	1.077	1.160	-.333	.116	-.541	.232
N3	440	1	5	3.29	1.065	1.135	-.301	.116	-.507	.232
N4	440	1	5	3.23	1.096	1.200	-.193	.116	-.616	.232

N5	440	1	5	3.21	1.108	1.229	-.183	.116	-.668	.232
N6	440	1	5	3.27	1.111	1.234	-.199	.116	-.580	.232
C1	440	1	5	3.33	1.006	1.011	-.208	.116	-.442	.232
C2	440	1	5	3.29	1.026	1.053	-.207	.116	-.560	.232
C3	440	1	5	3.62	.877	.769	-.402	.116	.135	.232
C4	440	1	5	3.92	.827	.683	-.426	.116	.022	.232
C5	440	1	5	3.65	.960	.922	-.543	.116	.029	.232
C6	440	1	5	3.45	.982	.964	-.222	.116	-.461	.232
SE1	440	1	5	3.44	.990	.981	-.259	.116	-.296	.232
SE2	440	1	5	3.54	1.010	1.019	-.480	.116	-.165	.232
SE3	440	1	5	3.37	1.024	1.049	-.274	.116	-.369	.232
SE4	440	1	5	3.51	.856	.733	-.174	.116	.105	.232
SE5	440	1	5	3.35	.843	.710	-.225	.116	.157	.232
PE1	440	1	5	2.83	1.108	1.228	.039	.116	-.653	.232
PE2	440	1	5	3.10	1.090	1.189	-.180	.116	-.518	.232
PE3	440	1	5	2.88	1.188	1.411	.026	.116	-.817	.232
PE4	440	1	5	3.23	1.134	1.286	-.286	.116	-.492	.232
PE5	440	1	5	2.57	1.217	1.480	.306	.116	-.823	.232
PE6	440	1	5	3.50	1.039	1.080	-.367	.116	-.267	.232
SI1	440	1	5	2.97	1.159	1.343	-.035	.116	-.752	.232
SI2	440	1	5	2.93	1.078	1.162	-.127	.116	-.558	.232
SI3	440	1	5	3.42	1.125	1.265	-.366	.116	-.560	.232
SI4	440	1	5	2.96	1.049	1.101	-.094	.116	-.474	.232
SI5	440	1	5	3.24	1.037	1.076	-.188	.116	-.436	.232
SI6	440	1	5	3.24	1.061	1.125	-.293	.116	-.302	.232
Valid N (listwise)	440									

SPSS result for descriptive statistic of variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
S	440	1.00	5.00	3.1958	.75285	.567	-.159	.116	.228	.232
N	440	1.00	5.00	3.2045	.79995	.640	-.259	.116	.297	.232
C	440	1.00	5.00	3.5428	.67017	.449	-.122	.116	.080	.232
SE	440	1.00	5.00	3.4418	.66468	.442	-.357	.116	.886	.232
PE	440	1.00	5.00	3.0178	.85843	.737	-.165	.116	-.179	.232
SI	440	1.00	5.00	3.1277	.81893	.671	-.089	.116	.190	.232
Valid N (listwise)	440									

Appendix 1.4: Normality Test Results

SPSS result for Normality Test (Skewness and Kurtosis)

Descriptives

			Statistic	Std. Error
S	Mean		3.1958	.03589
	95% Confidence Interval for Mean	Lower Bound	3.1253	
		Upper Bound	3.2664	
	5% Trimmed Mean		3.2020	
	Median		3.1667	
	Variance		.567	
	Std. Deviation		.75285	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.83	
	Skewness		-.159	.116
	Kurtosis		.228	.232
N	Mean		3.20	.038
	95% Confidence Interval for Mean	Lower Bound	3.13	
		Upper Bound	3.28	
	5% Trimmed Mean		3.22	
	Median		3.17	
	Variance		.640	
	Std. Deviation		.800	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.259	.116
	Kurtosis		.297	.232
C	Mean		3.54	.032
	95% Confidence Interval for Mean	Lower Bound	3.48	
		Upper Bound	3.61	
	5% Trimmed Mean		3.55	
	Median		3.50	
	Variance		.449	

	Std. Deviation		.670	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.122	.116
	Kurtosis		.080	.232
SE	Mean		3.44	.032
	95% Confidence Interval for Mean	Lower Bound	3.38	
		Upper Bound	3.50	
	5% Trimmed Mean		3.45	
	Median		3.40	
	Variance		.442	
	Std. Deviation		.665	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.357	.116
	Kurtosis		.886	.232
PE	Mean		3.02	.041
	95% Confidence Interval for Mean	Lower Bound	2.94	
		Upper Bound	3.10	
	5% Trimmed Mean		3.02	
	Median		3.00	
	Variance		.737	
	Std. Deviation		.858	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.165	.116
	Kurtosis		-.179	.232
SI	Mean		3.13	.039
	95% Confidence Interval for Mean	Lower Bound	3.05	
		Upper Bound	3.20	
	5% Trimmed Mean		3.13	
	Median		3.00	

Variance	.671	
Std. Deviation	.819	
Minimum	1	
Maximum	5	
Range	4	
Interquartile Range	1	
Skewness	-.089	.116
Kurtosis	.190	.232

Appendix 1.5: Multicollinearity Test Result

SPSS result for Tolerance value and Variance Inflation Factor (VIF)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.797	.179		4.458	.000		
	N	.499	.040	.530	12.493	.000	.632	1.583
	C	-.107	.042	-.095	-2.518	.012	.796	1.256
	SE	.186	.050	.164	3.724	.000	.586	1.707
	PE	.097	.033	.111	2.928	.004	.789	1.268
	SI	.079	.040	.086	1.954	.051	.591	1.692

a. Dependent Variable: S

Appendix 1.6: Heteroscedasticity Test Results

Summary of Heteroscedasticity-Breusch-Pagan-Godfrey

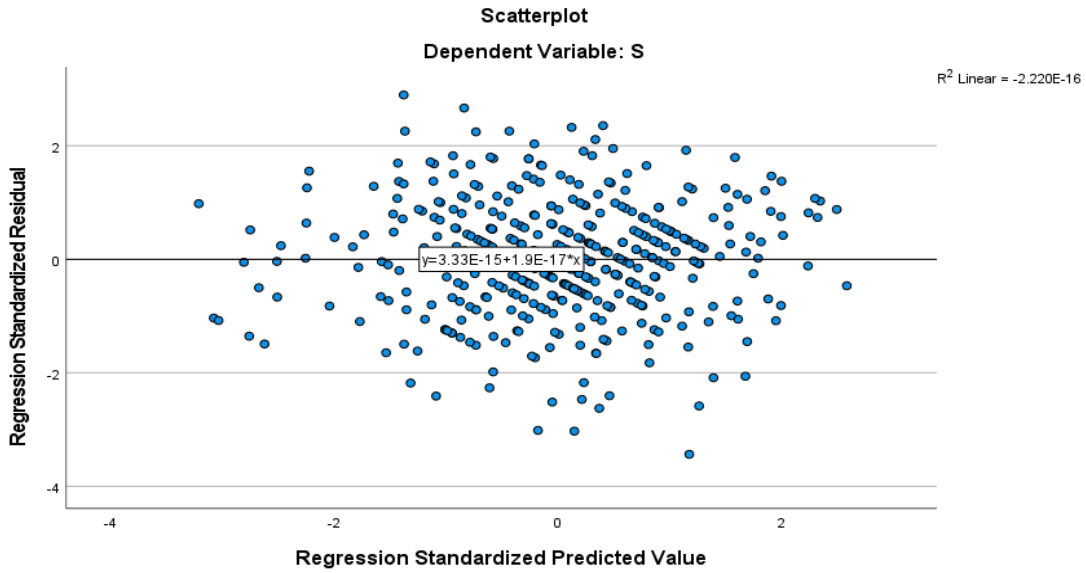
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.616	5	.323	1.718	.129[b]
	Residual	81.672	434	.188		
	Total	83.288	439			

a. Dependent Variable: sqres

b. Predictors: (Constant), SI, C, SE, N, PE

Summary of Heteroscedasticity-Breusch-Pagan-Godfrey (Scattered plot)



Appendix 1.7: Results for Multiple Linear Regression

Summary of Multiple Linear Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	SI, C, SE, N, PE[b]	.	Enter

a. Dependent Variable: S

b. All requested variables entered.

Summary of Multiple Linear Regression (R and R^2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.712[a]	.507	.501	.53179	2.014

a. Predictors: (Constant), SI, C, SE, N, PE

b. Dependent Variable: S

Summary of ANOVA result

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	126.086	5	25.217	89.170	.000[b]
	Residual	122.735	434	.283		
	Total	248.820	439			

a. Dependent Variable: S

b. Predictors: (Constant), SI, C, SE, N, PE

Summary of Multiple Linear Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.797	.179		4.458	<.001	.445	1.148		
	N	.499	.040	.530	12.493	<.001	.420	.577	.632	1.583
	C	-.107	.042	-.095	-2.518	.012	-.190	-.023	.796	1.256
	SE	.186	.050	.164	3.724	<.001	.088	.284	.586	1.707
	PE	.097	.033	.111	2.928	.004	.032	.163	.789	1.268
	SI	.079	.040	.086	1.954	.051	.000	.158	.591	1.692

a. Dependent Variable: S

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(Chong Shu Hua)

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ID Number(s)	2005481, 2006387 and, 2100288
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CHAPTER 1: INTRODUCTION

1.1 Background of Study

The term "stress" refers to a feeling of tension or anxiety caused by a challenging situation. Stress is an inherent human reaction that motivates us to confront life's difficulties and dangers. Most people experience stress in challenging situations such as job interviews, exams, precarious jobs, or conflicts with family and close friends. Not only that, but stress is made common by issues such as major economic crises, disease outbreaks, wars, and communal violence (Stress, 2023). According to Tan & Yip (2018), stress was first described by Hans Selye, who observed patients suffering from rare diseases complaining of low motivation and loss of appetite. Stress can be defined into three types, which are acute, episodic, and chronic stress. According to Tiwari & Fuller (2021), occurrences of stress can help a person become more sensitive and alert to what is happening around them. Acute stress theory focuses on the biological framework based on the impact of extreme stressors on human health (Shahsavarani et al., 2015). Acute stress disorder (ASD) develops within weeks of an unexpected or traumatic event. Most people cannot diagnose PTSD because it is difficult to detect mental problems without going to a psychological clinic (Tiwari & Fuller, 2021). Episodic acute stress occurs when a person experiences acute stress more frequently (Shields et al., 2017). Ohwovoriole (2022) developed a framework to illustrate the relationship between stress and hypertension by explaining the nervous system and how it affects human and mental health. Chronic stress is stress that occurs continuously when a person is unable to adapt and cope with difficult situations for a long duration. With the body and mind in a state of high tension, an excess of hormones produced by the adrenal glands can lead to maladaptation and cardiovascular problems (Legg, 2020). Chronic stress is expressed as a common term when applied to poverty, dysfunctional marriages, and chronic discrimination in the workplace (King et al., n.d.). Davis (2022) argued that chronic stress can be described

as a cage that limits people's happiness, while CPTSD can be explained as a complex form of web that traps people's minds in the worst memory or childhood they have ever experienced before.

In 2019, Gallup's 2019 Global Emotions Report revealed that about one-third of people worldwide experience stress, worry and anger issues. According to the report, Greece exhibits the highest level of stress at 59%, followed closely by the Philippines at 58%, with Tanzania at 57%, Albania and Iran both at 55%, along with Sri Lanka and the United States. Uganda registers 53% stress, while Costa Rica, Rwanda, Turkey, and Venezuela all report 52% stress. (Ray, 2019). According to Global Emotions Report, around 160,000 people from 116 countries were surveyed on people's mood in 2020. The findings indicate that 40% of adults have encountered feelings of anxiety or stress, 29% have faced physical discomfort, while 27% have felt sadness and 24% have experienced anger. In 2020, nearly 190 million people are under higher pressure than in previous years. This situation shows that the world is sadder, angry, worried, and more stressed than it has been in the past 15 years. As a result, 2020 is considered the most stressful year in recent history. There are several reasons for the stress in the world. The onset of the Covid-19 pandemic has affected millions of Americans out of work, with iconic companies filing for bankruptcy and multiple small stores closing. School closures are forcing some working mothers to juggle careers and families. This situation leads to unemployment and increased stress as they are forced to quit their jobs to focus on their families and children (Kelly, 2021).

Malaysia has been seriously affected by the global Covid-19 pandemic. Despite the relatively low number of reported infections in the country, the impact of the virus has begun to affect Malaysia's economy (Noman et al., 2021). The global outbreak has had a profoundly negative impact on economies around the world, leading not only to widespread unemployment but also to scarce job prospects for recent graduates (Noman et al., 2021). These include affecting people's mental health, especially depression and anxiety. A report by the Malaysian Institute of Economic

Research (MIER) predicts that Malaysia's real GDP will decline by 2.9% and the unemployment rate will reach nearly 2.5 million (Noor et al., 2020). The forecast has sparked widespread concern and scepticism among Malaysia's workforce, especially university graduates who are about to enter the job market. However, the situation has the potential to exacerbate an individual's stress level.

In a study conducted in Malaysia, 1,554 Malaysian citizens were surveyed about the incidence of stress, depression, and anxiety during the COVID-19 pandemic. According to the survey, 70% of them were women (74.1%) and the rest were men. Furthermore, more than half of the participants identified as Malay (57.1%) and a similar proportion identified as students (59.5%) (Shamsuddin et al., 2013). According to research, 25.1% of Malaysian citizens showed severe depressive symptoms, 18.7% showed mild depressive symptoms, 34.1% showed mild to moderate anxiety symptoms, and 0.9% showed severe anxiety symptoms (Shamsuddin et al., 2013). Findings highlight the vulnerability of women, young people, and people with chronic illnesses in coping with mental health issues during COVID-19. Financial and employment anxiety are known to negatively impact academic performance. The survey revealed that women (29.5%) recorded higher rates in major depressive symptoms compared with men (12.4%), and students (26.5%) recorded higher rates of major depressive symptoms compared with individuals from other occupational categories (Shamsuddin et al., 2013). Single people (26.5%) also had a higher prevalence of depression than married or divorced people (Shamsuddin et al., 2013).

According to this article, Malaysian undergraduates had depression levels range between 13.9% to 29.3%, anxiety levels range between 51.5% to 55.0%, and stress levels range between 12.9% to 21.6% (Teh et al., 2015). Among students, medical students are more likely to face emotional disorders such as anxiety and stress. There has been an increase in Malaysian university students experiencing depression, anxiety and stress during the Covid-19 lockdown. The main stressors of this issue are the shift of learning to an online model and uncertainty about the future such as

employment. Furthermore, instructors' high expectations, various assignments, and poor technical questions increase their anxiety levels (Hassan et al., 2022). Furthermore, Shamsuddin et al. (2013) conducted a survey among 506 students of four public universities in Klang Valley, Malaysia. 37.2% of the students faced depression, 63.0% of the students faced anxiety, and 23.7% of the students faced stress, all of which were at moderate to severe levels. The anxiety had recorded the highest percentage between the three categories. This situation is mainly due to their high expectations for academic performance, thereby creating a stressful environment in universities.

According to the survey by Kong et al. (2022), 57.2% of 285 students at Newcastle University Malaysia Medical School (NUMed) experienced anxiety: 27% (77 students) experienced mild anxiety; 15.4% (44 students) experienced moderate anxiety; 14.7% (42 students) experienced severe anxiety. In addition, among 285 students, 167 students (58.6%) suffered from depression, of which 27% (77 students) had mild depression, 16.1% (46 students) had moderate depression, 6.3% (18 students) had depression. Moderate depression, 9.1% (26 students) experienced severe depression. Among the 285 students, 227 students (79.7%) were stressed, 178 students (62.5%) were moderately stressed, and 49 students (17.2%) were highly stressed. This problem may be due to the extension of the course time due to the epidemic, which delayed the graduation time of students and affected their future employment. Consequently, this has led to a raise in the number of students experiencing depression, anxiety, and stress.

Nowadays, the university students in Malaysia faced high stress level due to the overload of assignment and the social impact. According to SinChew Daily, Universiti Tunku Abdul Rahman (UTAR) student committed suicide in 2013, that suspected due to the low exam grade and difficulties in meeting new friends. The suicide case had been taken attention from the community and UTAR internal management. To reduce the possibilities of severe stress, Department of Students Affair (DSA) had established a new unit, called UTAR Community Counselling

Centre (UCCC). UCCC wished to enlighten emotional issue not only for the students but also the community, by utilizing several ways such as social skill improvement, counselling appointment, psychology test, and combination of education and psychological knowledge (*UTAR Community Counselling Centre (UCCC)*, n.d.). DSA promoted mental wellbeing campaign or programme every year for the students and the outsiders, in order to encourage self-enrichment and peer support by increasing their emotion knowledge and interaction with others (*Student Counselling & Support*, n.d.). The occurrence of Covid 19 pandemic facilitate the support service from Counselling and Guidance unit to Centre for Healthy Mind and Wellbeing (CHMW). The presence of CHMW is aimed to ensure that all parties in UTAR including staffs, lecturers and students can involve themselves in the psychological programmes (*Counselling Unit Evolved into Centre for Healthy Minds and Wellbeing*, n.d.). Hence, the actions of UTAR can be determined how successful they are in handling the stress problem. From these, can be concluded that Universiti Tunku Abdul Rahman (UTAR) is very concern about the stress level of the students in understanding their emotion by providing the counselling services for students who need mental support.

In general, stress can be perceived from two different perspectives. Kelly McGonigal, a health psychologist at Stanford University, has a view on stress that "stress is not always harmful and negative" (University, 2015). If individuals fully embrace the concept of stress, it has the potential to improve their resilience, intelligence, productivity, and overall well-being (University, 2015). Recent research suggests that viewing stress as a positive force enables individuals to protect themselves from harm and to employ adaptive coping mechanisms that promote personal growth and well-being (The Benefits of Stress, n.d.). When viewed as an opportunity for learning and growth, stress can have positive outcomes, making individuals stronger, more energetic, happier, and even healthier in unexpected ways (Graves, 2017). In fact, most people have come to believe that stress is bad and harmful. This perception stems from evidence that chronic stress can lead to various health problems such as disease, depression, and premature death, which has led to stress gaining a negative reputation ("Chronic Stress", 2022). Relationships can trigger stress. Stress from

work, family, or friends often spills over into relationships, and conflict or differences in needs between couples can also cause stress (Reno, 2018). Conflict, disagreement, communication breakdowns, lack of support, or relationship changes can create emotional tension and stress. Relationship-related stress can have profound effects on mental health, self-esteem, and general well-being, and can lead to symptoms such as anxiety, depression, and other psychological problems (Reno, 2018). So, while a certain level of stress can motivate us and help us cope with challenges, chronic or excessive stress will bring negative impact on a person's mental and physical health.

1.2 Problem Statement

This article reviews the determinants of stress among students at Universiti Tunku Abdul Raman Malaysia, such as neuroticism, conscientiousness, self-expectations, parental expectations, and social influences. All of these determinants are critical to changing the factors affecting stress among students in Universiti Tunku Abdul Rahman Malaysia. As the presence of the Covid 19 pandemic had restricted the mobility of Malaysian citizens and increases financial burdens, acts of suicide and depression tend to increase, especially among university students. A survey analyzed students' transition to distance digital learning during the COVID-19 pandemic, examining their levels of satisfaction, confidence, social interaction engagement, and learning engagement (Anthonysamy & Singh, 2023). During the COVID-19 pandemic, Malaysia has presented various challenges including increased economic burdens, border closures and closure of educational institutions (Kamaludin et al., 2020). This phenomenon has led to a disruption of face-to-face learning in most schools, forcing students to embrace online learning, thereby putting pressure on them. The potential toll of this pandemic is enormous, affecting individuals with job uncertainty and mental health issues. In addition to the general population, the mental health of students also needs attention. A survey highlighted that these adolescents, as a vulnerable group, experience multiple mental health problems (Chuong Hock Ting & Essau, 2021). About half of the respondents faced serious psychological

consequences such as stress, anxiety and depression (Chuong Hock Ting & Essau, 2021). These bad feelings may be attributed to home isolation and social distancing practices. A global survey found that students reported increased stress, anxiety and worry during the covid-19 lockdown (Anthonysamy & Singh, 2023). This may be due to the increased use of social media by students compared to other age groups, putting their health at risk (Kamaludin et al., 2020). As a result, they are constantly faced with a series of distressing stimuli that lead to feelings of depression and anxiety.

As per the 2020 Global Comparative Analysis of Student Achievement and Engagement in Higher Education, 70% of students in the United States, 75% in the Asia-Pacific region, and 65% in Europe, the Middle East, and Africa have encountered falling behind since the onset of the pandemic (Anthonysamy & Singh, 2023). These results indicate that the students who are experiencing the greatest academic setbacks are situated in the Asia-Pacific region. Nevertheless, students perceived those modifications to the learning environment prompted by COVID-19 yielded unfavourable effects on their academic performance. A newspaper report has disclosed that approximately 30% of young individuals in Malaysia are grappling with heightened stress and varying degrees of anxiety due to the pandemic (Anthonysamy & Singh, 2023). These encompass students who are in their graduating or final years, apprehensive about their prospects, professions, and future educational plans (Anthonysamy & Singh, 2023). Notably, heightened anxiety correlates with more pronounced negative emotional expression and reduced academic self-assurance. This observation also implies that university students exhibit limited utilization of effective learning strategies, as they heavily depend on educators for direction and assistance. This could indicate a deficiency in college students' capacity for self-regulation. Evidently, the epidemic is instigating a multitude of mental health challenges among young individuals, thereby exerting an impact on their educational progress.

Also, in this rapidly evolving environment, most people are now becoming more materialistic due to lifestyle changes. For example, employees involved in the work

environment need to focus on individual performance to achieve the goals set by the organization. The article believes that the source of workplace stress is the work environment and management style. Organizations with poor management styles will bring a lot of stress to employees, such as discrimination, lack of support, employees are not motivated, conflicting roles and responsibilities, poor communication between employees and managers, etc. (Bhui et al., 2016). In such situations, workers may be under a lot of stress and burnout may occur if no action is taken to resolve the problem. In addition, a poor working environment can also cause employees to lose motivation to do a good job, such as messy working environment, lack of communication between employees and colleagues, long working hours, poor office environment, etc. (*7 Causes of Stressful Work Environments and How to Fix Them*, n.d.). As a result, employees feel stressed and helpless when they encounter problems.

In addition, the materialization of lifestyle also affects the behaviour of students in learning and interacting with others. According to this article, materialistic people are mostly unhappy and may treat others in a more competitive and comparative way (Locke, 2016). Materialism is often associated with lower levels of happiness, less prosocial interpersonal behaviour, and poorer academic performance. They are prone to mental health problems such as bad mood, depression and anxiety, and physical health problems such as headaches. If something goes wrong, they may have difficulty learning, affecting their academic performance. Furthermore, King & Datu (2017) pointed out that materialism is negatively correlated with life satisfaction and self-actualization, and positively correlated with depression and anxiety. Materialism can reduce students' willingness to learn and focus on income-generating things, which can affect student academic performance.

According to a survey conducted by University College London, about 16% of teenagers experience high levels of chronic stress, especially at the age of 17, and 10% of 17-year-old women and 4% of 17-year-old men contemplate suicide. On average, about 24% of 17-year-olds self-harmed in 2018 (Patalay & Fitzsimons, 2020). The occurrence of negative behaviours such as suicide and self-mutilation among young

people is mainly due to their low pain tolerance. According to Anestis et al. (2013), the level of distress tolerance indirectly affects emotional control and can lead to uncontrolled stress that can damage a person's physical health. Distress tolerance can be considered an important skill for a person to balance internal feelings with external events. A failure of distress tolerance may alter a person's behaviour and attitudes to use extreme methods of coping with problems and situations, such as releasing stress by hurting oneself instead of anxiety. Post-traumatic stress disorder (PTSD) is the most common negative effect of stress disorders (Robinson et al., 2021). And for adolescents, it becomes difficult to bear the pain because they mainly interfere with puberty and maladjustment. Accelerated suicide rates become the norm when people have a low distress tolerance (Skodol et al., 2002).

1.3 Research Question

1) Does neuroticism significantly affect stress among UTAR students in Malaysia?
2) Does conscientiousness significantly affect stress among UTAR students in Malaysia?
3) Does self-expectation significantly affect stress among UTAR students in Malaysia?
4) Does parental-expectation significantly affect stress among UTAR students in Malaysia?
5) Does social influence significantly affect stress among UTAR students in Malaysia?

1.4 Research Objective

1.4.1 General Objective

The general objective of this research is to determine the potential factors that may lead to stress among UTAR students in Malaysia.

1.4.2 Specific Objective

The specific objective for this research is:

1. To determine the relationship between neuroticism and stress among UTAR students in Malaysia.
2. To determine the relationship between conscientiousness and stress among UTAR students in Malaysia.
3. To determine the relationship between self-expectation and stress among UTAR students in Malaysia.
4. To determine the relationship between parental-expectation and stress among UTAR students in Malaysia.
5. To determine the relationship between social influence and stress among UTAR students in Malaysia.

1.5 Significance of Study

This study aims to provide a clearer understanding of the factors influencing stress among UTAR students in Malaysia. Researchers will also have comprehensive information and broad knowledge about a person's experience and background, which will change the person's behaviour. In this study, researchers would like to observe how the personality that a person performs will lead to stress among UTAR students through the conscientiousness and neuroticism. Besides, researchers found that external pressure expectations can be significant when they do not match the performance. The study aimed to determine and examine the relationship between expectations (parental-expectations and self-expectations) and stress among UTAR students. Through this study, the researchers found that university students mostly adopted digital and social media, and their emotions will also be affected by these social tools. Therefore, researcher want to measure how social influence would lead to stress among UTAR students. This study advocates the critical awareness of the severe effects of stress on society. The purpose is to alert society that the risk of increased suicide, depression or mental illness could be caused by neuroticism, conscientiousness, self-expectation, parental expectation, and social influence. This study is dedicated to future studies based on the investigation on factors that influence stress among UTAR students in Malaysia.

This study is essential to determine how stress do UTAR students faced by collecting all the theories and facts through published articles, the researchers would be able to identify which factors that troubling the UTAR students' mental health. This study can help to increase the awareness of stress among UTAR students to prevent burnout. The university students mostly disengage in work, is passive to problematic situations and stressful events, and builds an avoidant personality. While the teenagers might face stress through the uncertainty of the economy, and the pandemic restricts their chances to socialise with others (Levin, 2022). Not only that, but the health crisis that occurs nowadays places them at risk, always fearing diseases and loss or death. Not only the pressure from external sources, the university students are

increasingly wondering whether the university is worth the cost to study, due to the low salary paid for the fresh graduate (Lawton, 2019). This situation struggled the university students in reducing the expectation about their future in career path ("A Youth Issue in Malaysia: Academic Stress and Career-Building Pressure, A Strain on Mental Health," 2023).. The uncertainty for future and poor stress tolerance struggled the university students' personal effort and confidence to overcome the internal and external pressure. Hence, this study could help to alert the UTAR students about the prevalence of stress and seek assistance or mental health medication services from clinical psychologists immediately to prevent mental health problems.

This study is essential to invoke government and other non-governmental organisations (NGOs) to provide external support to those who work with or are stressed. Government and NGOs can provide financial support to people facing financial difficulty. For example, governments and NGOs can incentivise employees to seek financial assistance from companies to help them solve their problems. Government and NGOs can also set up counselling centres to provide free counselling services for those facing severe stress. This initiative can improve employees' honesty with the company and increase their commitment to work while reducing stress. In addition, this study is vital for disseminating awareness to the government about the root causes of stress. Government should ensure that people's work-life well-being is protected which company cannot force them to overwork. People need time off to relax and manage their work stress. If people cannot release stress long-term, the consequences may be mental health problems such as depression and anxiety. Since people nowadays live in a fast-paced environment, self-managing stress has become an essential way for people to release their stress. Thus, the government must be aware of this problem and take immediate action to prevent the consequences of stress, such as using policies and regulations to protect workers' rights in the workplace.

1.6 Structure of Study

This research study consists of 3 chapters. Chapter 1 describes the overall background of stress in different aspects, such as domestic and global stress levels and types. Chapter 1 also demonstrates the current phenomenon of stress in different age ranges and the occurrence of problems affected by stress. To provide evidence of the stress cases that commonly happen in the current economy, Chapter 1 listed down all the problems that could be observed through the published article or news. Through this chapter, the researchers analyse the study's main purpose by understanding the factors that may lead to stress. This chapter also provides a complete framework which illustrates the potential factors that may influence stress levels through previous studies. This study also provides the main reason and importance of determining the stress amongst UTAR students towards society.

Chapter 2 comprises an overview of a topic's theoretical background. Firstly, the researcher will discuss this study's relevant theories, concepts, or models. The purpose is to identify the scope or domain of the theory related to the research. Secondly, investigate and explain the definition of each variable or previous existing theories that apply to this research study. Thirdly, the research will also design the theoretical framework to further explain the variables. Researchers use hypotheses as a support for their research and as a means of achieving new knowledge. The purpose is to test the relationship or significance between two or more variables, whether each has a positive or negative effect in this study. Furthermore, the researcher also identifies the gaps or limitations of previous research through this study. The research gap is identified based on evidence, knowledge, methodological and empirical.

In Chapter 3, the researchers will discuss the methodology used in this study. Firstly, a research model will be constructed which involves all the five independent variables discussed in this study. The researchers will determine the research methodology used for this study: qualitative or quantitative. Secondly, a data collection method will be selected, either primary data (survey and interview) or secondary data (government

publication and journal article). Thirdly, the researchers will discuss the design of sampling. A targeted population will be chosen in this session, which is the most suitable for this study. The researchers will design this study's frame and location sampling and the reasons for the decision. After determining the location sampling, the types of sampling techniques will be discussed. The researchers will discuss and choose the most appropriate technique of sampling used in this study. A formula will be utilized to calculate the most suitable sample size need based on the population size. This session is important to ensure that sufficient information and data are collected to examine the objectives of this study. Fourthly, the researchers will discuss the instruments used to gather the data. A set of questionnaires will be designed to collect respondents' data, demographic data, and perceptions of the study. Besides, the researchers will choose the variable measurements used in this study, such as nominal, ordinal, interval, and ratio scales. Furthermore, the ways to measure the presence of reliability in the questionnaire will be discussed throughout this session. A pilot test will be conducted to determine the study design's feasibility. The result of the test will be discussed in a more detailed way. A discussion on ethnic considerations will be included to ensure that the data provided by respondents is protected and must be kept confidential by researchers. Lastly, the researchers will decide on the techniques for data analysis for this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Relevant Theories/Concepts/Models

2.1.1 Hans Selye Stress Theory: General Adaptation Syndrome (GAS)

General Adaptation Syndrome (GAS), a theory that illustrates the changes in physiological in an individual's body in response to stress (Edwards, 2022). The founder of this GAS theory was Hans Selye, also called the 'father of stress research' in 1936 (Tan & Yip, 2018). Selye described the GAS as how the body adapts to a perceived threat and uses it to survive better (Burgess, 2017). There are three stages for the GAS theory (Selye, 1950).

The first stage is alarm reaction, which is the body's initial response to stress. When an individual is faced with a difficult situation, the signal will send to a part of brain, called hypothalamus. The hypothalamus will release glucocorticoids, a type of hormones, in response to the signal. The release of adrenaline and cortisol (a stress hormone) will be triggered by the glucocorticoids. This adrenaline will provide energy to the individual, increase individuals' heart rate and blood pressure. After that, a part of individual's autonomic nervous system (ANS), sympathetic branch, will be responsible to control these changes (Burgess, 2017). In this stage, the GAS helps individuals prepare for the stressors they are experiencing. This condition is often called the 'fight or flight' response.

The resistance stage starts when the body attempts to resist the physiological changes that occur in the first stage of GAS. This stage is controlled by

parasympathetic, a part of ANS. If the parasympathetic branch can overcome the stressors experiencing by decreasing the cortisol produced, the changes in heart rate and blood pressure will back to normal (Burgess, 2017). On the contrary, if the stressors are remaining means that the individual is still facing difficulty. The physiological changes will remain, and the stress hormones will continue to be produced. Prolonged periods of high stress will cause some symptoms in the body, such as headaches, sleeplessness, low emotion, and irritability (Edwards, 2022).

The third stage in GAS theory is the stage of exhaustion which is caused by chronic unresolved stress. In this stage, the body continuously tries and fails to recover from the first stage, depleting its energy resources (Burgess, 2017). The body will no longer cope with the stress, and several health problems will occur in this stage. The symptoms that a person is in the stage of exhaustion are insomnia, anxiety, depression, and lower stress tolerance (Ohwovoriole, 2022). Thus, the General Adaptation Syndrome is a good explanation of how a person's body responds to stress and how stress can be detrimental to a person's health.

2.1.2 Theory of Academic Stress

This study adopted the Academic Stress Theory, which was explored by Phillips et al. (2020), which defined that academic stress is highly linked to two different appraisals, which firstly understand the characteristic of the stressor is a type of threat that could affect a person's behaviour, and secondly determine the feeling of stress among students might affect their overall academic performance. Licayan et al. (2021) demonstrated that personal problems, afraid of failure, insufficient facilities, the relationship between teacher and student, and interaction difficulties with teachers were the main factors that caused students to be stressed. According to Park (2004), personal adequacy is highly correlated to perfectionism and can be separated into two terms: usual perfectionism and

neurotic perfectionism. Self-criticism will be performed on persons who have always felt self-inadequacy and depression towards themselves. The high fear of facing failure might lead to stress, depression, and anxiety (Conroy et al., 2002).

Alkhazaleh & Mahasneh (2016) stated that the family's attitude towards the child's poor academic and overall performance would make the child feel ashamed of failure. Although the high expectation and hope from the family, teachers, and peers motivate students to be more aggressive in their achievement, it may lead to high pressure on the students since they are afraid of failure (Li, 2021). At the same time, the relationship between teacher and students is essential in determining the students' stress due to the relatedness of the students based on the secure attachment towards a teacher (Furrer & Skinner, 2003). According to Lei et al. (2018), the supports and encouragements from teachers are essential in constructing the student's emotional development. Academic facilities are necessary for analysing academic performance (Eliasu et al., 2016). The lack of technology, study materials, and laboratory classes brought academic stress to the teachers and students.

2.1.3 James Lange Theory

The James Lange theory was developed by William James and Carl Lange (Hasa, 2022), a hypothesis explaining the derivation and characteristics of emotions. The theory suggests that emotions result from physiological changes in the body, including the experience of stress (Sincero, 2023). According to this theory, people experience different emotions based on their interpretation of arousal, that might be affected by their previous experiences, cognitive capabilities, and emotional states. For example, if a person sees a dog bark at him or her, they fear and feels ready to run. In other words, people's bodily reaction changes based on emotions. There are several physiological responses that occur when a person encounters a stressful situation, such as an increased

heart rate, elevated cortisol levels, elevated blood pressure, and heightened muscle tension (Sincero, 2023). The theory suggests that when an event stimulates a person, the body's autonomic nervous system (ANS) responds by causing physiological changes such as accelerated heart rate, muscle tension, and body sweating, and (James-Lange Theory of Emotion: Definition and Examples, 2022). These bodily changes are believed to trigger the experience of stress or stress-related emotions. The brain then interprets these physiological reactions, resulting in the experience of emotion. This process is similar to the "fight-or-flight" response (Sincero, 2023). The body's sensations in conjunction with the brain's interpretation of events and physiological changes are what prepare a person to react.

The theory challenged the dominant view at the time, which proposed that emotions were primarily cognitive or subjective experiences that occurred independently of physiological responses. The James-Lange Theory proposes that a person's perception and interpretation of their body's physiological responses play an essential role in emotional experience. In the case of stress, the theory suggests that an individual body's physiological responses to a stressful situation can contribute to the experience of stress-related emotions. However, it is crucial to determine the relationship between stress and emotions is multifaceted and complex, while other psychological and cognitive factors also play an important role in the prevalence of stress.

2.1.4 Transactional Theory of Stress and Coping

This study has adopted the transactional theory of stress and coping in explaining the relationship between conscientiousness and stress. This theory is a Transactional Model introduced by Lazarus and Folkman in 1984 that examines people's stress adaptation (Faryabi et al., 2022). According to Lazarus & Folkman (1984), the definition for psychological stress is a type of specific

relationship between a person and the environment, in which the person perceives as depleting or exceeding the person's resources and jeopardizing the welfare. The essence of the transactional method is the two-way nature of the transaction among a person and his or her environment. Thus, neither individuals nor environment that create stress, but a complex transaction among them. According to Cooper & Quick (2017), this theory has played an essential role in creating stress and coping research. Berjot & Gillet (2011) stated that this theory has two stages, which are cognitive appraisals and coping.

Cognitive appraisals refer to the process of classifying encounters and their aspects based on its importance to well-being (Berjot & Gillet, 2011). The importance of appraisal emphasizes the stressful perception of the event rather than the event itself. This theory decides whether to initiate coping strategies and ultimately address the stressor (Cooper & Quick, 2017). Lazarus & Folkman (1984) stated that appraisals are divide into two dimension, primary and secondary appraisal. A primary appraisal assigns meaning to a particular personal or environmental transaction, define the importance of the transaction to the person's welfare. If the transaction is considered stressful, it may cause harmful, threaten, or negative emotions to that individual. The secondary appraisal evaluates coping resources indicating a person's ability to utilize the resources to cope with the situation (Berjot & Gillet, 2011).

Coping is defined as frequent cognitive and behavioural changes to control the internal and external demands created by stressful transaction (Cooper & Quick, 2017). Coping strategies are designed to manage stressors (problem-focused coping) directly or to regulate emotions arising from stressful encounters (emotion-focused coping). Cooper & Quick (2017) stated that the result of a coping effort comes with new environmental information, leading to a process of cognitive reappraisal. This circumstance will be reassessed to determine if the coping effort is successful or if the circumstance already changed from stressful

to insignificant or positive. Thus, this theory can explain how people suffer from a stressful environment and how they solve their stress.

This theory can well explained on the relationship between conscientiousness and stress. There are some aspects of conscientiousness which are goal-oriented, detail-oriented, organized, and responsibility (*Conscientiousness*, n.d.). According to the article, a high conscientiousness person using more problem-focus coping strategy as a protective from stress (Bartley & Roesch, 2011). Thus, this theory will be utilized in this study to explain the relationship between conscientiousness and stress.

2.1.5 Expectancy Value Theory

The Expectancy Value Theory was created by Atkinson in the year 1964 (Expectancy-Value Theory, 2022). It is a psychological theory that describes an individual's expectancies for success based on making decisions and forming attitudes about the expected outcomes. Their subjective values for succeeding are essential to their particular behaviour or motivation to achieve tasks and future goals (Turvey & Freeman, 2011). Expectancy-Value Theory has been used to explain various behaviours and attitudes, such as academic achievement, health behaviours, consumer choices, career choices, and interpersonal relationships. The model suggests that an individual's expectancies and values are influenced by various factors, including self-concepts, goals, socioeconomic status, the experience of success and failure, personal beliefs, and the socializing influence (parents, teachers, peers, and schools) (Barron & Hulleman, 2014). The Theory proposes that people are more likely to engage in behaviours or hold attitudes towards objects that they believe will lead to positive outcomes and have high subjective value while avoiding behaviours or objects with adverse outcomes and low subjective value. For example, if someone believes that studying for an exam will likely result in a high grade

(positive outcome), they are more preferrable to engage in studying behaviour. In this situation, the model helps shape a person's belief in their ability to perform the task (expectancy) and their motivation or desire to perform the task (value) (Barron & Hulleman, 2014). Overall, Expectancy-Value Theory provides a framework for understanding how individuals make decisions and form attitudes. It can be applied to self-expectations by considering how an individual's beliefs about their expectancies and their value to specific outcomes influence their motivation, decision-making, and attitudes towards their behaviour or performance.

2.1.6 Social Stress Theory

This study also adopted the Social Stress Theory introduced by Aneshensel (1992), which illustrated that human stress is mostly affected by social issues and supports. The theory defines that social stress can be developed through external factors. Aneshensel (1992) mentioned that social stress can be determined by using two ways which are the distribution of the social issues towards stress and the prevalence of stress among social groups such as gender and race. It also demonstrated that the standard of vulnerability to stress differs between acute and chronic stress. The social stress and coping strategies can be reflected differently when a person is placed in 3 different states and life stages: marriage, becoming a parent, and career path (Elizabeth G. Menaghan & Merves, 1984; Menaghan, 1982). Worku et al. (2020) illustrated that self-social status, high parental expectations, and financial status are highly associated with perceived stress. Finn (1972) proposed the theory of expectation, which illustrated that expectation from parents and family could influence a person's thoughts and behaviour.

According to Zheng et al. (2023), childhood life events played an essential role in developing the problem of socializing and depression in adulthood. The study

linked self-efficacy closely with social avoidance and anxiety problem, which demonstrated that a person with high self-efficacy can lead to lower stress and anxiety levels. However, the study also mentioned that the children with high self-efficacy mainly reflected the attitude of avoiding seeking help and assistance from others (Tahmassian & Moghadam, 2011). Wheaton (1983) illustrated that social stress can vary between environmental and coping resources. Environmental resources are external support from parents, friends, and colleagues. While personal coping resources are primarily based on one person's personality types, which can reflect when facing stress. Wheaton (1983) also described that stress-buffering could help a person to manage their emotions in controlling the effect of stress in terms of harmfulness.

2.2 Relevant Past Studies

2.2.1 Stress

According to Reddy et al. (2018), stress can be considered a norm or lifestyle problem that everyone might face and might lead to changes in a person's behaviour development. Mcleod (2023) described that Type A behaviour led to the formation of stress and depression by comparing it with Type B behaviour. Type A is a person's behaviour style that is more competitive, sensitive to situation changes, not patient and anxious in life, and would face higher stress than Type B (Jr & Friedberg, 1988). According to Lipp (2001), stressors can be differentiated into two types, which are internal and external. Internal stressors are the thoughts and own feelings that most commonly occur during stress. Tennant et al. (2007) illustrated that mental stress is mainly affected by self-satisfaction level, personal stress management, and cognitive ability. Jiang et al., (2022) illustrated that self-control significantly correlates with academic stress. Self-control negatively affected the mental well-being of the students and was

negatively associated with the formation of stress. A past study also reflected that self-regulation could be negatively related to stress since self-regulation is positively linked to reasonable psychological adjustment (Fuente et al., 2021).

While external stressor is the pressure that results from environmental aspects, such as incidents that a person may not control. A past study illustrated that extreme academic expectations, overload assessment, and a person's relationship network are the essential factors that affect stress (Ng et al., 2016). Pedersen & Jodin (2016) said that the friendship problem had high significance with academic stress, which the person may feel unable to escape from the existing peer group and join a new community. Lucas-Thompson & G. (2014) conducted a study that showed that parental warmth reflected negatively on the stress level. A stress study conducted in Latino can be concluded that family and friend support was negatively related to stress (Suwinyattichaiporn & Johnson, 2020). But this statement was rebutted by a study conducted in Latino, which demonstrated that peer influence had a more significant impact on human well-being than parental influence. The response collected from the Latino students reflected no relationship between social influence and stress in the psychological term (Rodriguez et al., 2003).

A past study stated that the academic stressor could be considered the most severe stress factor that could influence the mental health stage of students (Barbayannis et al., 2022). According to Kapasia et al.(2022), satisfaction level, psychological factors, and personal risk behaviour in academics are essential criteria for describing stress and depression levels among students. Besides, various previous studies illustrated that the stress faced by university students could be concluded to different factors, including academic assessment, personal behaviour and expectation, and social support (Ng et al., 2016; Reddy et al., 2018). A study conducted in Karachi illustrated that 70% of respondents in Medical College reported that they faced stress, depression, and anxiety (Khan et al., 2012). According to Khan et al. (2014), most respondents reflected

that they refused to seek external assistance when they suffered from stress. They would not express their feelings when they faced stress in education which resulted in suicide intention.

2.2.2 Neuroticism

Neuroticism refers to individuals' tendency to develop negative emotions, such as anger, anxiety, irritability, emotional instability, and depression (Widiger & Oltmanns, 2017). According to Kiziloglu & Karabulut (2023), an individual with the characteristic of neuroticism which is negative emotions tends to be more stressed when facing difficulty. During the pandemic, the nurse with neuroticism personality is more easily to affected physically and psychologically, which leads to higher stress levels. A past study found that the association between daily stress and negative emotions was more substantial in high neuroticism than low neuroticism people (Mroczek & Almeida, 2004). High neuroticism people may perceive stressors as threats rather than challenges, thus increasing their stress levels. The high-stress level may cause people to experience negative emotions, anxiety, or depression, leading to poor performance. According to Gilbert (1994), people with high neuroticism often overreact to stressors. Thus, the repeated activation of negative emotions can lead to increased sensitivity to stressors, known as the "kindling effects". This will increase the emotional response to adverse events.

A previous study found that high neuroticism people viewed their stressors as more severe and perceived them as more detrimental to daily life (Espejo et al., 2010). Even without apparent stressors, high neuroticism is more likely to feel distressed. According to Tong et al. (2006), a higher level of neuroticism is linked to greater sensitivity to stressors. This statement is because their negative emotion will treat the stressors as a threat to them and increase the perceived severity of stress from the adverse events. Neuroticism has a positively

significant impact on perceived stress (Ebstrup et al., 2011). Neuroticism predicts a tendency to assess events as a high threat and low coping resources. The high threat will cause people to fear the situation and generate higher stress. People with higher neuroticism are significantly more responsive to and more exposed to conflict (Bolger & Schilling, 1991; Bolger & Zuckerman, 1995). In addition, people with different levels of neuroticism will have different coping strategies, reactions to stress, and levels of perceived stress (Morris, 2015). As a result, these findings suggest that neuroticism significantly affects stress levels.

According to Chen et al. (2022), neuroticism has a significant direct impact on the stress level. Fichter et al. (2020) supported this result in which high neuroticism is the essential factors affecting company founders' perceived stress and further affecting the company's performance. According to Weinberg et al. (2021), neuroticism significantly impacts stress levels. The higher the instability in emotions, the higher the stress level. A previous study has found that neuroticism has positively and significantly influenced perceived stress from the perspective of academics (Bedi & Nayyar, 2022). Furthermore, a study found that people with low neuroticism tend to be less stressed during the pandemic (Eid et al., 2022). Conversely, people with high neuroticism will have a higher stress level (Liu et al., 2021). Thus, a positive relationship exists between neuroticism and stress during the pandemic. According to Anitei et al. (2013), people with high emotional stability (low neuroticism) tend to have lower levels of physical stress in the workplace. The primary sources of stress for young people in the workplace are communication problems and a lack of training for new skills. The previous study stated that neuroticism causes people to become worried and stressed during the pandemic and start to stockpile the products they think are essential (Garbe et al., 2020). Thus, neuroticism is a crucial factor that influences people’s stress levels.

2.2.3 Conscientiousness

Conscientiousness is a type of personality characterized by self-control, prudence, and competence (Legar et al., 2016). High conscientiousness can lead to less negative impact, thereby reducing the negative impact of stressors. This statement shows the negative relationship between conscientiousness and stress. According to Besser & Shackelford (2007), conscientiousness is associated with increased stress management, stress tolerance, and the ability to prevent stress. This can show that higher conscientiousness with lower stress levels will adopt more coping strategies. A study found that high conscientiousness people experience fewer episodic stressors of self-reliance and chronic stressors from academics and relationships (Murphy et al., 2013). Conscientiousness might be relevant to health which expose individuals to different stress levels or by determine whether stress affects disease-associated processes. Due to conscientiousness, people tend to plan carefully, so they are likely to avoid stressful situations and their health consequences (Cohen et al., 2007). The less stressful a person is, the lesser the health problems.

According to Brouwer et al. (2015), conscientiousness has a significantly negative relationship with stress sensitivity. High conscientiousness with high awareness of the stressful situation can help an individual to perform well by adapting to the stress. Their heart rate can quickly return to normal after a stressful situation. Chen et al. (2022) stated that people with conscientiousness would adapt to stress as a challenge and have coping strategies to reduce psychological distress. They tend to perceive less environmental stress and adapt these stresses as an opportunity for better performance. The study mentions that conscientious people will evaluate and modify their coping strategies with the situations they face.

According to Eid et al. (2022), conscientiousness negatively correlates with perceived stress during the Covid-19 pandemic. Government intervention meant

to control the pandemic through protective measures has affected people to a higher stress level. A previous study has supported the finding that the higher the conscientiousness of an athlete, the more stress can be tolerated while did not affect performance (Tok et al., 2013). According to O'Cleirigh et al. (2007), conscientiousness and perceived stress have a negative relationship in the case of HIV patients. This finding is supported by a previous study, in which a higher level of conscientiousness tends to lower perceived stress and lower negative mood during vacation (Besser & Shackelford, 2007). According to Luo & Roberts (2015), increasing people's conscientiousness will reduce stress levels and thus benefit their physical health. Thus, conscientiousness is an essential factor that influences people's stress.

2.2.4 Self-Expectation

Research has shown that academic expectations significantly cause stress among students. In past studies, Calaguas (2012) states that academic stress arises from adolescents' self-expectations and expectations of others. Chemers (2001) mentioned that the growing link between student self-evaluation and academic achievements will influence the highest psychological risk. Hope et al. (2013) have indicated that self-evaluation (self-esteem) and academic achievement significantly affect different conditions under anxiety, depressive symptoms, and perceived stress.

However, previous evidence Rodriguez (2009) shows that students can self-impose these expectations with increasing attention to promote high levels of academic performance and self-expectations among higher educational students. Pinquart & Ebeling (2020) pointed out that there is a vast difference between expectations level and academic achievement. It shows the highest expectations being more favourable to the future academic achievement. These expectations are considered an essential determinant of motivation in explaining

achievement-related behaviour. However, high expectations can motivate students to work harder, increasing their effort and persistence, ultimately promoting high academic performance (Pinquart & Ebeling, 2020).

Pinquart & Ebeling (2020) has indicated that individuals with high expectations tend to be more optimistic about future academic performance. Nevertheless, higher self-expectations are expected to lead an individual to have a perfectionistic striving for academic performance. According to Endleman et al. (2021), adolescents with high academic achievement and self-efficacy are more likely to have perfectionistic strivings. Most adolescents believe that perfectionism may be achievable to high academic achievement. Furthermore, adolescents may further pressure themselves with higher expectations and perfectionism to maintain success (Endleman et al., 2021). When individuals set high expectations for themselves or are expected to meet high standards by others, they may experience chronic stress with adverse long-term outcomes, such as depression, feelings of anxiety, self-harm, and suicide (Endleman et al., 2021). This stress can be caused by various factors, such as a fear of failure, a desire to please others, or a belief that success is necessary for personal validation or achievement. In some cases, people may set unrealistically high expectations for themselves or be held to unattainable standards, leading to even greater stress levels. High-achieving adolescents may therefore be at exceptionally high risk for these experiences. Thus, this study will examine the significance between self-expectations and stress levels.

2.2.5 Parental-Expectation

Parental expectations are the parents' beliefs and judgments regarding their child's future achievement based on the child's performance, such as course grades, learning in school, and the desired maximum level of education (Ma et al., 2018). When their child cannot achieve the expectations, they will become

stressed and start facing depression. The research found that most of the Asian and American child has poorer psychological and social adjustments, and parental expectations could become a stressor for adolescents (Choi et al., 2013). When this happens, students will start to face academic stress and thus affect their academic performance. According to Borelli et al. (2014), Chinese parents mostly put high expectations on their child's academic performance and control their children to follow their expectations. Due to this situation, the children will be experiencing higher levels of stress and negative emotion.

According to Zheng et al. (2023), parental expectation has a negative relationship with academic stress, and a positive relationship with emotional self-efficacy. While emotional self-efficacy negatively affected academic stress and test anxiety. Thus, the study concludes that emotional self-efficacy is essential in mediating the relationship between academic stress and anxiety. The study further discussed that parental expectations have significantly affected the relationship between academic stress and emotional self-efficacy. As a result of this research, parental expectations are an essential factor influencing students' stress levels.

According to Deb et al. (2015), parents' expectations of their children being the best student in the class cause them to stress when they cannot achieve their parents' target. They will have an emotional breakdown when they cannot afford the higher stress level. This finding supports a previous study in which parental expectations will directly affect their children's academic stress and further cause depression (Sarma, 2014). Besides, Sangma et al. (2018) have stated that parents mainly cause students' academic stress due to their children's welfare and increased chance of entering prestigious universities. The higher stress level of students will result in poor performance. According to Nagle & Sharma (2018), the high level of parental expectation, the high level of students' academic stress. The uncontrolled parental expectation will cause excessive involvement of parents in their children's lives. This situation will make

students unwilling to follow their parents' intervention and lead to a higher stress level. A previous study found that students forced by their parents to choose their future careers recorded higher stress levels (Tangade et al., 2011). Parents should not make decisions for their children but allow them to make their own decisions.

2.2.6 Social Influence

Social influence is a prevalent phenomenon in contemporary societies, indicating that an individual's actions, opinions, or beliefs are highly likely to impact others in various aspects of life, ranging from academic performance to substance use to mental well-being. According to Telzer et al. (2018), social influences may affect positive and negative adjustment among adolescents. The sources of social influence include peers, personal relationships, family, friends, teachers, and others.

While the presence of peer influence often affects people's social lives, it is an internal or external pressure felt to behave in specific good and bad ways. However, Choukas-Bradley et al. (2015) stated that peer influence is not necessarily a negative phenomenon, as it can also help explain how individuals adopt positive or adaptive behaviours. Peer pressure can also become a method of improving students' performance early in their college education. Chen & Deng (2022) indicated that sometimes peer pressure might positively affect college students. In terms of comparing themselves to peers, most college students can handle the pressure effectively, as they view peer pressure as a positive influence that motivates them to work hard and achieve academic success (Chen & Deng, 2022b). As competition among students intensifies, peer pressure becomes increasingly prevalent in college life (Chen & Deng, 2022b). However, some college students believe that peer pressure has adverse effects. Students may feel pressure to conform to the expectations and behaviours of

their peers, which can cause them to engage in activities or behaviours that are stressful or harmful. Students may compare themselves to their peers, leading to feelings of inadequacy or low self-esteem (Chen & Deng, 2022b).

According to Fiedler et al. (2023), several studies have recently examined the consequences of social media usage on mental health. A study reported that increased depression, anxiety, and social distress are related to time spent on social media and investment in and addiction to social media (Fiedler et al., 2023). Given this finding, using social media can potentially lead to social comparison, which can negatively affect mental health. Social media can exacerbate this, as students may see their peers' seemingly perfect lives and feel pressure to measure up. When people compare themselves to others on social media or in real life, they may feel inadequate or envious. This situation can create feelings of stress, anxiety, and low mood, as people strive to meet unrealistic standards or feel inferior to others (Hassan et al., 2022).

According to Robinson and Smith (2021), social media has positive and negative aspects. Social media can provide a sense of community and social support, which can reduce stress levels. People can connect with others who share similar experiences or interests, providing a sense of belonging and reducing feelings of isolation. It can also be a platform for self-expression, allowing people to share their thoughts, feelings, and experiences (Robinson & Smith, 2021). The social platform can be a healthy way to release emotions and alleviate stress. However, social media platforms can be a source of stress as people compare themselves to others, leading to feelings of inadequacy, low self-esteem, and stress (Eden et al., 2020). This can create stress and contribute to negative emotions. Thus, this study will examine the significance between social influence and stress level.

2.3 The Study's Conceptual Framework

According to the past studies that illustrated above, the conceptual framework has been constructed in figure 2.3.1. The figure 2.3.1 demonstrated the relationship between five independent variables and one dependent variable. The independent variables that applied in this research are neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence, whereas the dependent variable is stress.

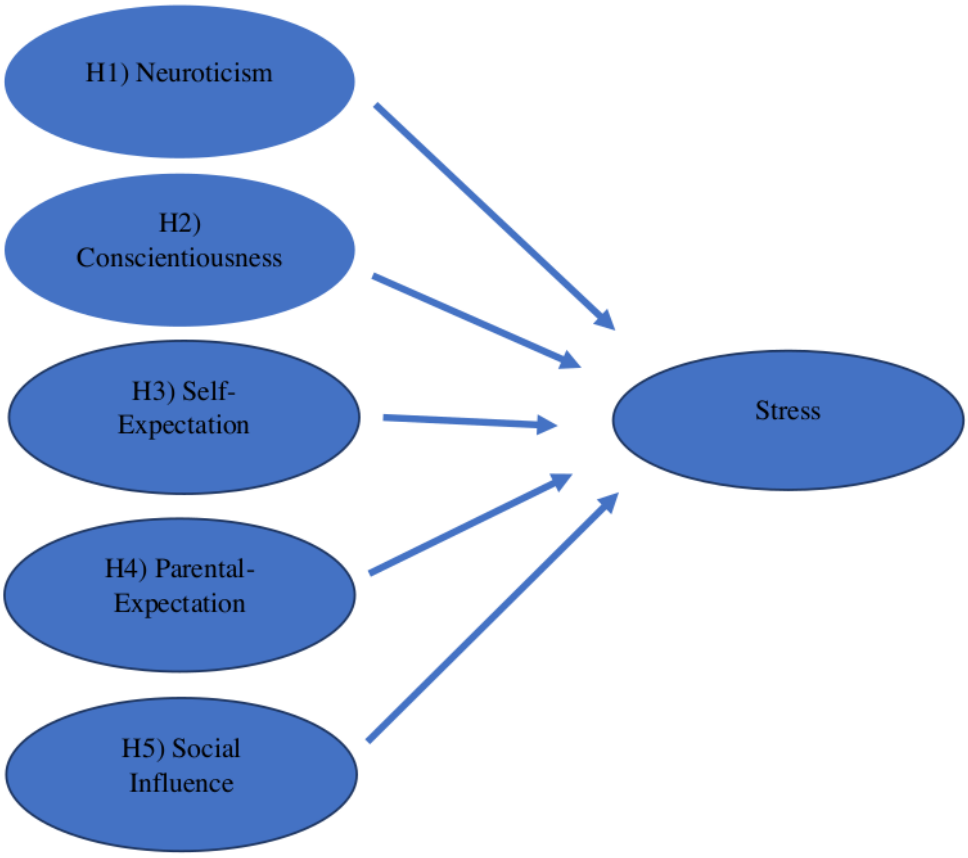

Figure 2.3.1: Conceptual Framework

2.4 Hypotheses Development

Based on the existing studies and conceptual framework, there are 5 hypotheses in the study. Through the present study, the researchers would like to examine the relationship between the five independent variables (neuroticism, conscientiousness, self-expectations, parental-expectation, and social influence) and the dependent variable which is stress among UTAR students in Malaysia. Firstly, a person with high neuroticism level may lead to the emotional instability, which may involve the cognitive function, while the cognitive function has the significant negative relationship with the stress development. Therefore, it showed significant relationship between neuroticism and stress (Scott et al., 2015).

H_1: The neuroticism significantly affect stress among UTAR students in Malaysia.

Secondly, a person with high degree of conscientiousness might lead to perfectionism and not able to adapt in uncontrolled situation, and caused the stress and pressure towards uncertainty (Lin et al., 2014). However, a past study showed negative relationship between conscientiousness and stress due to the high responsibility (Bartley & Roesch, 2011).

H_2: The conscientiousness significantly affect stress among UTAR students in Malaysia.

Thirdly, the self-expectation hypothesized have a significant relationship with the formation of stress. Naddeo et al. (2015) demonstrated that the high expectation can be defined as high estimation in own ability, might lead to the negative consequence on mental health if the things out of control. According to Calaguas (2012), the self-expectation significantly affected the academic stress that occurred among the adolescents.

H_3: The self-expectation significantly affect stress among UTAR students in Malaysia.

Fourthly, according to Ang & Huan (2006), the parents' expectations towards the achievement and success of their children is an important factor in building the strong emotional control in a person. Asakawa & Csikszentmihalyi (1998) also explained that the attitude of the person significantly affected by the parent hope and expectation, and lead to high level of positive motivation or negative depression.

H_4: The parental-expectation significantly affect stress among UTAR students in Malaysia.

Lastly, the social influence brings the emotional impact to a person which may affect the self-report and evaluation towards the stress. According to Haslam et al. (2004), the social influence reflect significant impact on a person stress status, while also explained that the relationship between social influence and stress might be depends on the situation faced.

H_5: The social influence significantly affect stress among UTAR students in Malaysia.

2.5 Gap of Literature Review

Several past studies found different arguments on the significance of conscientiousness. Lin et al. (2014) found that conscientiousness has a positive relationship with stress. A high conscientiousness person might not ably adapt in uncontrolled situation, and lead to stress of uncertainty. However, Chen et al. (2022) argued that a high conscientiousness person would adapt the stress as a challenge and opportunity for a better performance. Thus, the relationship between conscientiousness and stress is inconclusive. Pinquart & Ebeling (2020) indicates that individuals with high expectations tend to have a more positive outlook toward their future academic performance. Nevertheless, Endleman et al. (2021) contend that high self-expectations can lead to academic perfectionism, increasing stress levels. Prior studies have shown that there is a discrepancy between self-expectation and stress. However, there is a scarcity of information and research that clarifies whether high self-expectations have a significant or insignificant impact on student's academic stress. Besides, there have argument on the parental expectation which many researchers believed that the parental expectation positively significant influence stress but Zheng et al. (2023) illustrated that the parental expectation will increase the self-efficacy and reduce stress. Furthermore, there are different perspectives from previous research on the relationship between social influence and stress. Suwinyattichaiporn & Johnson (2020) and Rodriguez et al. (2003) illustrated different result in explaining the relationship between social influence and stress among the same target population.

CHAPTER 3: METHODOLOGY

3.1 Research Design

Research design is an overall strategy consisting of plans for data collection, measurement, and analysis to link distinctive elements of the study systematically and meaningfully to ensure that the research problem is effectively addressed (Tierney, 2002). Research design was divided into two major types, qualitative and quantitative research. Qualitative research is exploratory and seeks to understand individuals' underlying reasons, opinions, and motivations (Bhandari, 2020), while quantitative research focuses on numerical data and seeks to draw statistical conclusions about a population (Bhandari, 2020).

Qualitative research primarily involves interviews, observations, and focus groups, and is often used to gain insights into people's experiences, perceptions, and attitudes (Bhat, 2018). This type of research typically produces rich and detailed data that can provide a deeper understanding of a phenomenon (*Qualitative Survey Types & Examples | SurveyMonkey*, 2023). The data collected through qualitative research can be used to generate hypotheses, develop theories, and inform future research (Bhat, 2018). It is typically limited to a small sample size and cannot be easily generalized to a larger population (*Qualitative Survey Types & Examples | SurveyMonkey*, 2023)

However, researchers will use quantitative research in this research study. By using quantitative research, the researchers are allowed to measure, reflect and justify the connection among dependent and independent variables in a statistic way (Wilson, 2021). It also means that non-numerical data can be analyzed in numbers (Bhandari, 2020). Quantitative research can be applied to data with large sample sizes, and researchers can identify the patterns and averages, form estimations, examine causal relationships and generalize outcomes to broader populations (Babbie, 2014). This

type of research is often used to measure the prevalence of a particular phenomenon in a population, to compare groups or treatments, or to test hypotheses.

3.2 Data Collection Method

In the data collection stage, information will be collected from every related or suitable source to discover answers to the research problem, test the hypothesis and justify the results (Dudovskiy, n.d.).

The researchers will utilize the primary data method in this research. It provides more updated, reliable, and accurate insights compared to secondary research (Ajayi, 2017), which fulfills the research purpose of studying the factors influencing stress among UTAR students in Malaysia. The researchers wish to further explore the significant effect between the five pre-determined factors (neuroticism, conscientiousness, self-expectation, parental expectation, and social influence) and stress among UTAR students through conducting an online survey. Primary data are collected through interviews, surveys, experiments, questionnaires, or others (Benedictine University, n.d.). Therefore, this study will collect primary data via a questionnaire to study the factors influencing stress among UTAR students in Malaysia. One of the reasons for utilizing a questionnaire is that the data collected is consistent and comparable. The results can be easily entered into a database or statistical software for analysis, which allows researchers to identify patterns and trends in the data quickly. Overall, questionnaires are a convenient and cost-effective way to collect data from many participants and can provide valuable insights into various research topics.

3.3 Design of Sampling

Design of sampling defined as the plan and methodology followed to select a sample from a target population, and the formula for estimation techniques used to compute the sample statistics (Kabir, 2016). The researchers will divide it into four sections.

3.3.1 Target Population

Target population is defined as any inference from a sample refers only to the defined population from which the sample was correctly chosen (Banerjee & Chaudhury, 2010). In other words, the target population is the group of people that a study primarily concerned with. The objective of this study is to examine the relationship between the dependent variable, stress, and dependent variables, neuroticism, conscientiousness, self-expectation, parental-expectation and social influence among UTAR students in Malaysia. According to Kong et al. (2022), the stress level for students during Covid-19 pandemic is the highest, recorded 79.7% which equal to 227 out of 285 respondents. Students recorded 58 with low stress level (20.4%), 178 respondents with moderate stress level (62.5%), and 49 respondents with high stress level (17.2%). Thus, the target population for this study is UTAR students in Malaysia.

3.3.2 Frame and Location Sampling

Sampling frame is defined as a mechanism for identifying and locating sampling units within a population (West, 2016). Sampling frame is important for the researchers to recruit their target participants without wasting time. As many studies has indicated that academic performance of students at various educational levels, such as primary school, college, and university, can be

negatively influenced by manifestations of depression, anxiety, and stress (Shamsuddin et al., 2013). In fact, the majority of university or college students faced the challenges related to independent living and academic challenges. However, these symptoms can harm their academic achievement and lead to a deterioration in personal relationships (Shamsuddin et al., 2013). In this study, the sampling frame chosen in this study is Malaysia's University students. The researchers will recruit participants primarily from among the students in Universiti Tunku Abdul Rahman (UTAR).

3.3.3 Technique of Sampling

The sampling method can be differentiated into two types which are probability sampling and non-probability method (Showkat & Parveen, 2017). The probability sampling method is the type of sampling method that provides a fair selection for the potential respondents by selecting the entire sample from the whole population. Examples of probability sampling are simple random, systematic, stratified, and clustering. In comparison, the non-probability sampling method is the sampling method that is more convenient and more efficiently to proceed. For example, convenience, judgmental, quota,, and snowball sampling (Pace, 2021). This study will utilize the non-probability sampling method, which is the convenience sampling method. Due to the lack of resources, the non-probability sampling method allows the study's data collection to be less time-consuming and cost-consuming. It is suitable for research with a limited time frame compared to probability sampling. Not only this, convenience sampling enables the researchers to obtain the current data trend from a particular study's sampling frame (*Convenience Sampling*, 2023). The researchers could gather the information by getting the response for the survey in a convenience manner, such as friends, relatives, and social media. Since the chance given for the convenience sampling method does not equal for every potential respondent, the study might reduce the bias by increasing the

opportunities for the people unknown to participate in the survey, such as sharing the survey for the unrecognized UTAR students through Microsoft Team and visit physically in the university area. The researchers prepared gifts or sweets for the respondents to appreciate their participation in the survey.

3.3.4 Size of Sampling

Since the target population focused on the students from Universiti Tunku Abdul Rahman (UTAR), which consists two university campuses in Malaysia that consisted up to 20,000 students recently (*Introduction*, n.d.). Therefore, the study should identify how many of the samples can be distributed from the population that can be considered enough to represent the population. The computation of the sample size required the margin of error, population proportion and confidence level. Margin error is the probability that the researchers allow the potential error of sample differed to the population. The research mostly put the margin error between 4% to 8%, which can reduce the uncertainty and unreliability of the research. The population proportion is referred to the probability of the respondents providing answer "yes" or "no", so 50% is the best value in measuring the population proportion. Hence, this study will apply 5% to the margin of error, 50% for population proportion, and 95% of confidence interval, the study might need 377 respondents as its sample size.

$$n = N \times \frac{\frac{Z^2 \times p \times (1-p)}{e^2}}{\left[N - 1 + \frac{Z^2 \times p \times (1-p)}{e^2}\right]}$$

$$n = 20,000 \times \frac{\frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2}}{\left[20,000 - 1 + \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2}\right]}$$

$$n = 377$$

3.4 Research Instrument

This study used survey questionnaire to gather data from the respondents including respondents' demographic information. In addition, seven scales will be used to develop the questionnaire, which are Perceived Stress Scale, Big Five Inventory, Concise Conscientiousness Measure, Chernyshenko Conscientiousness Scales, Living-Up to Parental Expectation Inventory, and Academic Expectations of Stress Inventory, and Center for Epidemiologic Studies Depression Scale. Besides, the questionnaire reliability, ethical consideration, and pilot test will be discussed in this section.

3.4.1 Questionnaire Design

Questionnaire is defined as a list of questions to be filled out or commented on by respondents. By using a questionnaire, the data can be collected in a standardized way, therefore, achieving internal consistency and coherence in data analysis (Roopa & Rani, 2012). The questionnaire developed in this study included seven parts. In Section A, the questions are about the demographic's information of the respondents. The researchers will collect the personal information of the respondents to ensure that they fulfill the requirement for the research's target respondents. There are five questions in this section, including age, gender, ethnicity, year of study and programme of study. Two measurements of scale will used in this section, which are nominal and ratio scale.

Section B consists of six questions that related to stress level, which is the dependent variables in this study. This section adopted few related questions from Perceived Stress Scale (PSS), a measurement scale or assessment to examine the stress among UTAR students. Furthermore, Section C consists of

six questions that related to neuroticism, the factor influencing the stress level. Big Five Inventory (BFI) will be modified and utilized in this section. The researchers will utilize the related questions to this study. In Section D, the questions will be modified from the Concise Conscientiousness Measure (CCM), Chernyshenko Conscientiousness Scales (CCS), and the BFI for the conscientiousness variable. There are six questions included in this section. For Section E, the questions created will be supported by past studies on the influences of self-expectation on stress level. The researchers will utilize and modified questions from Academic Expectations of Stress Inventory (AESI) and prepare five questions for this section.

In Section F, the Living-Up to Parental Expectation Inventory (LPEI) will be adapted in preparing the questions. There are six questions in this section which mainly related to the independent variable, parental-expectation. For Section G, Center for Epidemiologic Studies Depression Scale (CES-D) will be applied for preparing the questions for social influence. There are six questions included in this section that supported and modified from the past studies. For all the section in the questionnaire, the questions design is based on the Five-point Likert Scale. Respondents are required to choose among the five-points from strongly disagree to strongly agree, which indicate their stand for each question. The researchers will utilize the data collected as raw materials to determine the study's objectives.

3.4.2 Variables Measurements

Variable measurement is a scientific measurement that uses a numeric alphabet to express the meaning of the variables in research. Variable measurements can be used not only in quantitative research but also in qualitative research, which can categorize the response into "Yes" or "No". There are two different categories for measurement scale, which are categorical variables and

quantitative variables (Marchevsky, 2000). Categorical variables are the number stated that do not represent meanings, such as nominal and ordinal scales. While quantitative variables can also be known as continuous variables, which consist of interval and ratio scales that contain meaning through the numeric sequences (Types of Variable, n.d.).

In this study, the researchers utilize nominal and ordinal scales to measure respondents' demographic information and independent and dependent variables. The researchers considered using the nominal scale in section A. Nominal scale is a scale mainly used by the researchers to identify the respondents, in which the selection or value is not able to explain any meanings, and most suitable for use in labelling the non-numeric data. While ratio scale is a measurement scale which able to shows the order, the actual value between units, and it has the true zero value. This scale can be applied to the questions such as height and age (Scales of Measurement, n.d.). The questionnaire in section A is mainly based on the characteristics of the respondents, such as age, gender, and ethnicity, which might not be able to generate any meaning through the options of the respondents. The questionnaire in this section is closed-ended and does not include a ranking for the answers or options. Thus, nominal scale will be applied to the questions for respondents' gender, ethnicity, year of study and programme of study. While the ratio scale will be applied to the question for respondents' age.

For Section B, the Perceived Stress Scale (PSS) will be applied in this study to determine the stress level of the UTAR students. The Perceived Stress Scale is the classical measurement tool that mostly used by the psychologists to undertake the assessment for the respondents about the recent feelings and own thoughts towards the difficulties existed (Cohen et al., 2009). The time frame of the questionnaire set in the scale is limited in last month. While the questionnaire designed in this study will adopt few questions from PSS, and the questionnaire will be modified into ordinal scale, which is five-point Likert

Scale instead of score-based. The respondents can provide their opinions by selecting the scale point from 1 (strongly disagree) until 5 (strongly agree) (Xi et al., 2018). The higher the scale that selected demonstrate that the respondents have higher stress level, and vice versa.

For Section C, the BFI will be utilized to prepare questions relating to neuroticism. The BFI refers to a self-report measurement instrument designed for the Big Five personality traits. There are 44 items included in this scale (*Big Five Inventory (BFI)*, n.d.). The researchers will use ordinal scale of measurement in this section which is a five-point Likert Scale. The respondents will share their view by selecting the scale from 1 for strongly disagree to 5 for strongly agree. If the value close to 5 means that the respondent is close to neuroticism.

For Section D, the questions in CCM-S, CCS, and BFI will be adopted in preparing the questions for conscientiousness. The CCM developed by MacCann et al. in 2009 which consisted with seven aspects of conscientiousness. There are 59 items included in the scale. Franzen et al. (2021) has developed and validated the short form of the CCM, namely CCM-S as the assessment for adolescents in educational research. Besides, the CCS is a scale that assesses the low-order structure of conscientiousness (Rocha et al., 2022). There are six domains in this scale, which are industriousness, order, self-control, responsibility, traditionalism, and virtue (Green et al., 2015). There are 60 items included in the CCS, in which I domain for 10 items. The researchers will utilize ordinal scale of measurement which is five-point Likert Scale in this section. The scale ranking is from 1 (strongly disagree) until 5 (strongly agree) (Rocha et al., 2022). Higher value means the respondent has a conscientious personality trait.

In Section E, the AESI will be used for preparing the questions for self-expectation in the questionnaire. This scale was developed by Ang and Huan

(2006) in measuring the stress level arising from academic expectations for both students and supervisors such as parents and teachers. There are 13 items and two components of self-expectation and others expectation. While in Section F, the LPEI will be adapted in preparing the questions for parental-expectation. LPEI measured the degree of a person living up to parental expectation. There are 62 items in this scale (Wang & Heppner, 2002). Ordinal scale of measurement will be use through five-point Likert Scale, 1 denote strongly disagree until 5 denote strongly agree. The higher the value represents the higher stress level causes by the expectations (Sun et al., 2011).

In Section G, the CES-D scale will be utilized for preparing the questions related social influence in the questionnaire. The CES-D Scale has been used in many studies and is considered to be a reliable and valid tool for assessing depression in various populations (Cheng et al., 2012). This scale was developed by measuring the stress level arising from social environment for adolescents (Cheng et al., 2012). Researcher will use Likert scale as ordinal scale to obtain data regarding independent variables and dependent variables based on their own perception, knowledge, and experience. The result option on this scale is constructed as 1 to 5, 1 for strongly agree while 5 for strongly disagree. The higher the value represents the higher stress level causes by the social influences.

3.4.3 Questionnaire Reliability

The reliability test is the test that is mostly applied in research study or project to ensure that the result of the research is reliable. The reliability phase in the research describes the research that might provide a similar result no matter how often the research is conducted. According to Che Md Ghazali (2016), the reliability test must be conducted regardless of the presence of a validity test. If the research lacks of reliability, the result might not let people trust the research

reflect the accurate perspectives of respondents but from the external or irrelevant variables that are not included in the research. The reliability test consists of 4 types, which are test-retest, inter-rated, parallel, and internal consistency reliability test.

Test-retest reliability test is a test that need to perform twice on the same respondents to determine that the preferences and choices that the respondents had chosen are the same within two times. According to *Reliability in Research: Definition and Assessment Types* (2023), the test-retest reliability is mostly conducted with the same respondents, and obtaining the response of the respondents at different occasions or times to test the result of the respondent are similar to explain the presence of the reliability. While the inter-rated reliability test is a test that involves several researchers that assess the same group of people and determine the difference between their responses. For example, the researchers test the same group of children at the playground to understand their emotional status. The parallel reliability test is the test that uses different kinds of surveys and questions to understand that the respondent is giving their perspective in the same way. This reliability test involved several types of research methods and a questionnaire scale to test the behaviour of the respondents in order to get a similar result from the respondent. While internal consistency is the test determining how the respondents answer the set of questionnaires in the same direction. This can help to increase the reliability of the research by testing the correlation between the questionnaires given to the respondent (Sauro, 2015).

The study used the internal consistency reliability test to determine the questionnaires set in the research related to the study. The study utilized Cronbach's Alpha to determine the presence of internal consistency reliability. Cronbach's Alpha is the most famous statistical test used by researchers to determine the validity and availability of the questionnaire, the researchers can adjust or amend the questionnaire by measuring the value observed through

Cronbach's Alpha. This can help the researchers remove the items or sections unrelated to present a high-quality questionnaire (English & Keeley, 2015). This study will mainly utilize the SPSS system to generate information through data to obtain Cronbach's Alpha value. A value that stays at 0.9 and above mean excellent, a value between 0.81 to 0.9 reflects good internal consistency, a value between 0.71 to 0.8 represent that internal consistency is good and acceptable, while a value drop between 0.61 to 0.7 mean acceptable, and the value below 0.6 means that the questionnaire is not acceptable. Most researchers use 0.7 as a benchmark to determine the presence of internal consistency (Taber, 2018). Cronbach's Alpha helps increase the research quality by determining the differences between the homogeneous questionnaire to ensure that the items are in the same construct.

3.4.4 Ethical Consideration

By ensuring the integrity of research, ethical considerations play a vital role to carried out in a way that respects, acts responsibly toward, and benefits all the parties involved. It was a list of rules to guide the research activity. When the researchers collect the data from the people, the researchers have to obey these rules. Fundamental ethical principles include voluntary participation, obtaining informed consent, ensuring anonymity, maintaining confidentiality, addressing potential harm, and appropriately communicating research findings. (Bhandari, 2021). Based on participate in voluntary, the researchers must make sure the respondents are free to participate or quit the research and cannot force respondents to resume the research when they are wishing to quit (Bhasin, 2020). For informed consent, it is the responsibility as the researchers to inform respondents that all the information they need to know before they participate in the research, the information including the data they will provide for the researchers (Bhandari, 2021). For anonymity, the researchers will not collect the respondent’s personal data, like name, phone number or any photo of the

respondents (Bhasin, 2020). The researchers will not include any of their personal information in the report, this is so called confidentiality. The researchers need to protect the respondents from getting any harm, no matter in physical or mental harm. For example, the researchers will avoid asking questions that make the respondents feel embarrassed or uncomfortable in the questionnaire. The last ethical consideration is results communication, which means that the researchers must do their work fully on themselves and avoid plagiarism from the others study (Bhandari, 2021).

3.4.5 Pilot Test

A pilot test is a process to test whether the questions in the questionnaire are good or not. Its purpose was to test the feasibility of the research before the researchers start to collect and analyse all the data (Enago Academy, 2021). Usually, this test will choose a sample from the respondents in the research to conduct the test, so it is a little experiment to test that the way the researchers to ask the questions is on the right path or not (Leon et al., 2011). It is more prefer that at least 30 of the sample can be chosen in order to conduct this test (Whitehead et al., 2016). According to Connelly (2008), it is recommended to utilize 10% of the sample size for conducting pilot test in the study. In order to obtain accurate data for this study, a minimum of 377 questionnaires is required, and therefore, it is necessary to complete at least 37 questionnaires during the pilot test. This stage enables researchers to identify and correct any issues or limitations in the study design or questionnaire before collecting data from the full sample. This can save time and resources and improve the overall quality of the data collected.

3.5 Data Analysis Techniques

This study will utilize descriptive analysis, diagnostic checking, and inferential analysis for the data analysis. The diagnostic checking includes normality, multicollinearity, and heteroscedasticity tests. For the inferential analysis, multiple linear regression analysis will be performed. These data analysis techniques will used in this research to observe how the independent variable (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) affect dependent variable (stress among UTAR students in Malaysia).

3.5.1 Descriptive Analysis

The purpose of descriptive analysis is to summarize the collected data in an organized way, through describe the relationship between variables (Kaur et al., 2018). It included frequency distribution, central tendency measurement such as mean, mode and median, and measurement of variability such as standard deviation and variance (*What Is Descriptive Statistics - Definition, Types, & More*, 2023). This tool is useful to provide basic information for the variables' use and determine the relationship between the variables.

Some tools will be utilized for comparing the data collected such as bar chart and pie chart. These tools will be applied to present the respondents' demographics profile such as age, gender, and the respondents' ethnicity. In addition, some frequency tables will be listed to illustrate the number or percentage for each group of respondents such as group of age. Mean is used to measure interval variables and thus it will be utilized in this study. Moreover, the standard deviation also will be utilized to measure the distribution of the data.

3.5.2 Diagnostic Checking

Diagnostic tests are used to examine the model misspecification in Econometrics. These tests can be used to measure the adequacy of the econometric models (DeBenedictis & Giles, 1996). This study will conduct several tests to determine the problem that might occurred in regression model, which are normality, multicollinearity, and heteroscedasticity.

3.5.2.1 Normality Test

Normality test is a statistical test that mainly explains whether the sample obtained from the population is normally distributed. The normality test is primarily performed in the research to ensure that the data collected is symmetrical and proportionate to the population. Most of the studies generated the normality test before the inferential statistical tests such as F-test and t-test since normality can be considered the basic assumption. This study will utilize the Statistical Package of Social Science (SPSS) to determine the degree of normality through the value of skewness and kurtosis and the Quantile-Quantile (Q-Q) plot distribution graph. The normality distribution can be indicated as the sample mean near the population mean, which means the symmetry of data (Godalle, 2022). There are two methods to identify the presence of normality, which are graphical and analytical. The graphical method utilized in this study is a normality plot. While the analytical method is observed through skewness, and kurtosis value. If the skewness value is close to zero, and the kurtosis value of three, the data can be considered normally distributed. However, if the sample size is larger than 300, the skewness value is less than two, and the kurtosis value falls between –7 and +7, it can be considered as normality distributed. The Quantile-Quantile (Q-Q) plot distribution graph might perform the presence of normality if the plots can construct an approximate straight line (*Quantile-Quantile Plot*, n.d.). The absence of normality interpreted that the sample is not symmetry distributed from the population, with even higher or steeper values (Ghasemi & Zahediasl, 2012).

3.5.2.2 Multicollinearity

Multicollinearity refers to a linear relationship between the independent variables (Shrestha, 2020). In regression models, when some of the independent variables are highly correlated with each other, multicollinearity problem will occur. The major problem of multicollinearity includes erratic and biased standard errors. This may cause the p-values assessing the statistical significance of independent variables to become very erratic, leading to unrealistic interpretation of the variables (Vatcheva et al., 2016). In other words, over-inflating standard errors causes multicollinearity to render some independent variables statistically insignificant when in fact they should be (Daoud, 2017).

The researchers will generate the Variance Inflation Factors (VIF) using SPSS system in this study. The result will be applied in detecting the multicollinearity. If the VIF is equal to 1, which means that there is no correlation between the independent variable and no multicollinearity problem for the regression model. If the VIF falls between 1 to 5, it means that there is moderately correlated between the independent variables. However, if the VIF value more than 5, means that highly correlated between the independent variables and multicollinearity problem has been detected in the regression model (Daoud, 2017). Besides, this study also will utilize the tolerance value calculated by using SPSS to detect the existence of multicollinearity problem. The tolerance value is defined as the reciprocal of the VIF. If the tolerance value is close to 1, means that there is no multicollinearity exists in the regression model (Oke et al., 2019). If the tolerance value is lower than 0.1 to 0.2, it means that the multicollinearity problem exists in the regression model (Kim, 2019).

3.5.2.3 Heteroscedasticity - Breusch Pagan Godfrey Test

According to Stephanie (2016), Breusch Pagan Godfrey test is mostly utilized to detect heteroscedasticity problem. The heteroscedasticity problem typically arises when the variability of errors in a regression model varies across different levels of the independent variables (*Heteroscedasticity Definition: Simple Meaning and Types Explained*, 2023). In other words, the variability of the residuals changes as the values of the independent variables' changes. This study might utilize SPSS to generate P-value for heteroscedasticity testing purpose. A p-value exceeding 0.05 suggests the absence of heteroscedasticity, whereas a p-value below 0.05 indicates the presence of heteroscedasticity. While the Breusch-Pagan-Godfrey test determines the degree to which errors change as the explanatory variables increase (Stephanie, 2016). This process entails creating an estimation of the relevant regression model, which captures the connection between dependent and independent variables (Stephanie, 2016).

3.5.3 Inferential Analysis

Inferential analysis is an extend analysis that involved extra conclusion on the characteristics of the data collected instead of immediate description. The inferential analysis that used in this study is multiple linear regression model (MLR).

3.5.3.1 Multiple Linear Regression Research Model

The multiple linear regression model is a statistical method that can be described as an extension of Ordinary Least Squares (OLS). This approach is used to investigate the relationship among a dependent variable and two or more independent variables (Taylor, 2020). multiple linear regression is frequently

employed to investigate the connection between multiple predictor variables and a response variable (Taylor, 2020). The multiple Linear Regression for this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \ldots \beta_k X_k$$

$$S = \beta_0 + \beta_1 N + \beta_2 C + \beta_3 SE + \beta_4 PE + \beta_5 SI$$

Where,

S = Stress among UTAR students in Malaysia

β_0 = Constant

N = Neuroticism

C = Conscientiousness

SE = Self-Expectation

PE = Parental-Expectation

SI = Social Influence

To use this model for research, the researchers would typically collect data on the predictor variables and the response variable for a sample of individuals or cases. The researchers of this study might utilize Statistical Package of Social Science (SPSS) to generate the coefficient value for the independent variables, in order to estimate the dependent variables. The value of the independent variable is identified from samples collected through survey. By determining the coefficient values for each independent variable, multiple linear regression can elucidate the connection between stress and these independent factors (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence). Besides, the researcher utilizes the Adjusted R-square and F-statistic to describe the relationship between dependent and independent variables. Furthermore, Adjusted R-squared is a statistical metric employed to evaluate the appropriateness of fit in a regression model (Taylor, 2023). Adjusted R-squared ranges from 0 to 1. A higher Adjusted R-squared value is generally preferable (Team, 2020). In other words, a greater proportion of the

variability for independent variables to illustrate the dependent variable (Team, 2020). The F-test is a statistical test utilized to ascertain if the regression model effectively accounts for the variance observed in the dependent variable (Frost, 2017). In the context of multiple linear regression, the F-test evaluates whether there is at least one independent variable with a coefficient that is not equal to zero. Both Adjusted R-square and the F-test provide valuable insights into the effectiveness of a multiple linear regression model.

CHAPTER 4: DATA ANALYSIS

4.1 Reliability Test

In this study, the presence of reliability determined through internal consistency test. According to Taber (2018), the value of Cronbach Alpha that recorded 0.7 and above can be considered as the benchmark to describe the presence of reliability in a study.

Table 4.1.1: Reliability Test

	Number of items	Cronbach Alpha(α)	
		Pilot test (n=40)	Actual test (n=440)
Stress	6	0.856	0.797
Neuroticism	6	0.820	0.826
Conscientiousness	6	0.763	0.799
Self-Expectation	5	0.834	0.742
Parental-Expectation	6	0.877	0.853
Social Influence	6	0.887	0.848

Source: Obtained from SPSS

According to the Table 4.1.1 that obtained through SPSS, the Cronbach Alpha for dependent variable which is stress level is 0.856 for pilot test and 0.797 for actual test. While in pilot test, the Cronbach Alpha values for the independent variables which are neuroticism, conscientiousness, self-expectation, parental-expectation and social influence were 0.82, 0.763, 0.834, 0.877, and 0.887 respectively. In actual test, the Cronbach Alpha value for these independent variables were 0.826, 0.799, 0.742, 0.853, and 0.848 accordingly. While all the Cronbach Alpha values for variables in pilot and actual test recorded above 0.7, which illustrated that the variables were good and acceptable reliability.

4.2 Descriptive Analysis

In this study, the descriptive analysis is performed for respondents' demographic information and the data collected from Section A to Section G. Tables and pie charts were utilized to present the data in a clear format.

4.2.1 Respondents' Demographic Information

4.2.1.1 Age

Table 4.2.1.1.1: Descriptive Statistic for Respondents' Age

Age	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
18 years old	22	5.0	22	5.0
19 years old	117	26.6	139	31.6
20 years old	108	24.5	247	56.1
21 years old	115	26.1	362	82.3
22 years old	41	9.3	403	91.6
23 years old	24	5.5	427	97.0
24 years old	12	2.7	439	99.8
25 years old	1	0.2	440	100.0

Source: Obtained from SPSS

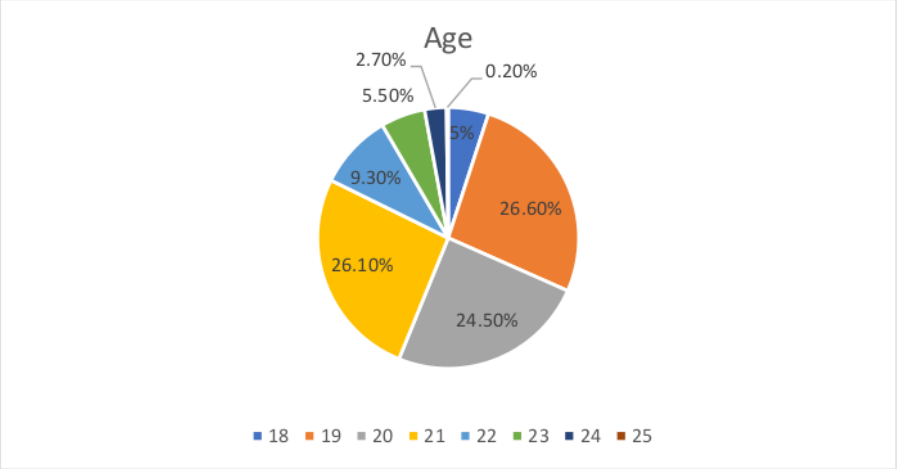

Figure 4.2.1.1.1: Descriptive Statistic for Respondents' Age

According to Table 4.2.1.1.1 and Figure 4.2.1.1.1, the largest proportion of the respondents were from age 19 years old, which recorded 117 respondents (26.6%). Followed by age 21 years old and 20 years old, recorded 115 respondents (26.1%), and 108 respondents (24.5%), respectively. Out of total of 440 respondents, 41 respondents (9.3%) were age 22 years old, 24 respondents (5.5%) were age 23 years old, and 22 respondents (5%) were age 18 years old. A total of 12 respondents (2.7%) were 24 years old. The lowest proportion of the respondents participated in this study was age 25 years old, which only 1 respondent (0.2%).

4.2.1.2 Gender

Table 4.2.1.2.1: Descriptive Statistic for Respondents' Gender

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Male	138	31.4	138	31.4
Female	302	68.6	440	100.0

Source: Obtained from SPSS

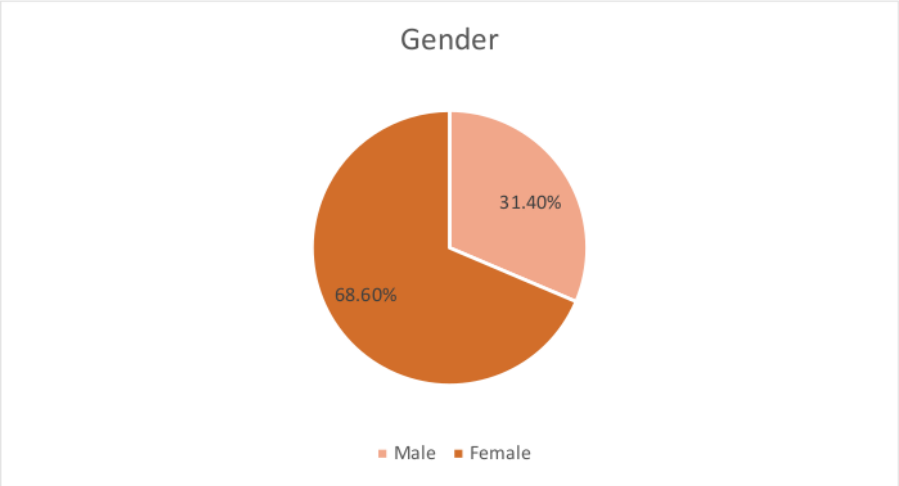

Figure 4.2.1.2.1: Descriptive Statistic for Respondents' Gender

Table 4.2.1.2.1 and Figure 4.2.1.2.1 described that the proportion of respondents' gender who participated in the survey. Majority of the respondents (68.60%) which equivalent to 302 respondents were female respondent. Only 138 male respondents (31.40%) were participated in the survey. As a result, the proportion of female respondents is bigger than male respondents.

4.2.1.3 Ethnicity

Table 4.2.1.3.1: Descriptive Statistic for Respondents' Ethnicity

Ethnicity	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Chinese	412	93.6	412	93.6
Eurasian	1	0.2	413	93.9
Iban	1	0.2	414	94.1
Indian	21	4.8	435	98.9
Malay	1	0.2	436	99.1

Punjabi	1	0.2	437	99.3
Siamese	1	0.2	438	99.5
Sikh	1	0.2	439	99.8
UAE	1	0.2	440	100.0

Source: Obtained from SPSS

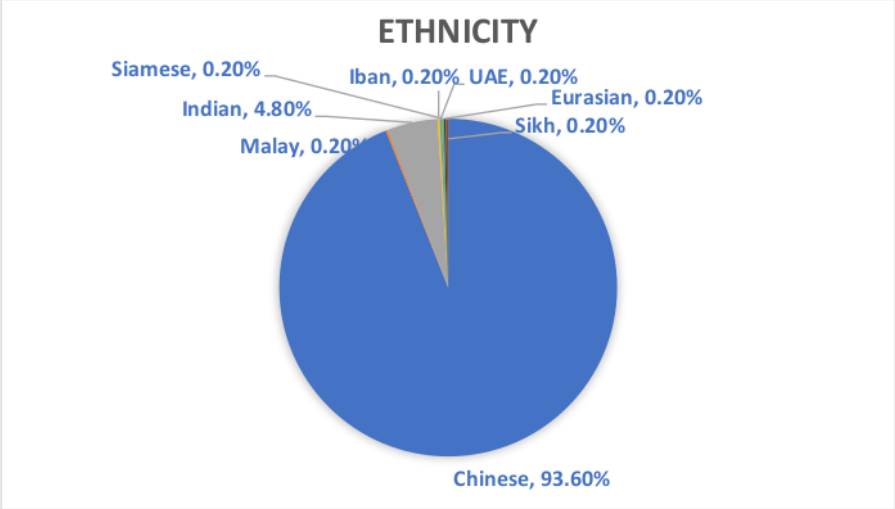

Figure 4.2.1.3.1: Descriptive Statistic for Respondents' Ethnicity

Table 4.2.1.3.1 and Figure 4.2.1.3.1 illustrated the proportion of each ethnic that participated in the survey. Majority of the respondents (93.6%) were Chinese, recorded 412 out of a total of 440 respondents. The second largest was Indian, 21 respondents equivalent to 4.80%. Malay (0.2%), Iban (0.2%), UAE (0.2%), Siamese (0.2%), Eurasian (0.2%), Sikh (0.2%), and Punjabi (0.2%), with only 1 respondent per ethnic.

4.2.1.4 Year of Study

Table 4.2.1.4.1: Descriptive Statistic for Respondents' Year of Study

Year	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Y1	284	64.5	284	64.5
Y2	76	17.3	360	81.8
Y3	77	17.5	437	99.3
Y4	3	0.7	440	100.0

Source: Obtained from SPSS

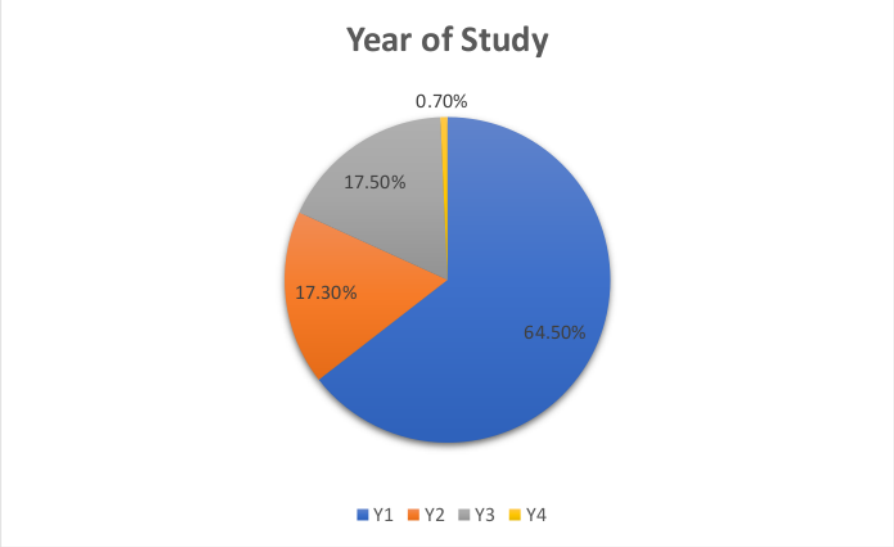

Figure 4.2.1.4.1: Descriptive Statistic for Respondents' Year of Study

Table 4.2.1.4.1 and Figure 4.2.1.4.1 demonstrated the year of study for respondents that participated in this study. The largest group of respondents was from Year 1, recorded 64.5%. The respondents from Year 2 and Year 3 have almost the same number of respondents, which are 77 respondents from Year 3 (17.5%) and 76 respondents from Year 2 (17.3%). The remaining 3 respondents were from Year 4, which equivalent 0.7%.

4.2.1.5 Programme of Study

Table 4.2.1.5.1: Descriptive Statistic for Respondents' Programme of Study

Programme	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Accounting	16	3.6	16	3.6
Advertising	7	1.6	23	5.2
Agricultural Science	1	0.2	24	5.5
Banking and Finance	16	3.6	40	9.1
Biomedical Science	19	4.3	59	13.4
Business Administration	40	9.1	99	22.5
Business Information Systems	6	1.4	105	23.9
Chinese Studies	6	1.4	111	25.2
Commerce Accounting	35	8.0	146	33.2
Communications and Networking	3	0.7	149	33.9
Computer Engineering	1	0.2	150	34.1
Computer Science	11	2.5	161	36.6
Dietetics	9	2.0	170	38.6
Digital Economy Technology	5	1.1	175	39.8
Electronic Engineering	9	2.0	184	41.8

English Language	3	0.7	187	42.5
Entrepreneurship	8	1.8	195	44.3
Environmental Engineering	2	.5	197	44.8
Finance	26	5.9	223	50.7
Financial Economics	26	5.9	249	56.6
Food Science	11	2.5	260	59.1
Foundation in Arts	45	10.2	305	69.3
Foundation in Science	24	5.5	329	74.8
Industrial Management	4	0.9	333	75.7
Information Systems Engineering	2	0.5	335	76.1
Logistics and International Shipping	2	0.5	337	76.6
Logistics and Supply Chain Management	45	10.2	382	86.8
Marketing	29	6.6	411	93.4
Master of Science	1	0.2	412	93.6
Psychology	21	4.8	433	98.4
Public Relations	6	1.4	439	99.8
Risk Management	1	0.2	440	100.0

Source: Obtained from SPSS

Table 4.2.1.5.1 demonstrated the programme of study for respondents who participated in the survey. There were 32 programmes gathered from the total of

440 respondents. The programme with the highest number of respondents were Logistics and Supply Chain Management and Foundation in Arts, which recorded 45 respondents (10.2%) for each programme. The third largest was Business Administration with a total of 40 respondents (9.1%), followed by Commerce Accounting with a total of 35 respondents (8.0%). Out of the total of 440 respondents, respondents who study Marketing course recorded 29 respondents which equal to 6.6%. The programme of Financial Economics and Finance have the same number of respondents which were 26 respondents (5.9%) for each programme. The programme of Foundation in Science, Psychology, and Biomedical Science recorded 24 respondents (5.5%), 21 respondents (4.8%) and 19 respondents (4.3%), respectively. Accounting and Banking and Finance programme have the same number of respondents, 16 respondents (3.6%) for each of the programme. In addition, Computer Science and Food Science programme also recorded same number of respondents which were 11 respondents (2.5%) for each of the programme. There were 9 respondents (2.0%) for each of the programme of Electronic Engineering and Dietetics, followed by Entrepreneurship with 8 respondents (1.8%), and Advertising with 7 respondents (1.6%). Besides, the programme of Business Information Systems, Chinese Studies, and Public Relations recorded the same number of respondents, which were 6 respondents (1.4%) for each of the programme. The number of respondents for Digital Economy Technology was 5 respondents (1.1%) while Industrial Management programme was 4 respondents (0.9%). Communications and Networking and English Language programme have recorded 3 respondents (0.7%) for each of the programme. Besides, 3 programme have recorded the same number of respondents, which were 2 respondents for each of the programme, namely Environmental Engineering (0.5%), Information Systems Engineering (0.5%), and Logistics and International Shipping (0.5%). Lastly, the lowest number of respondents were come from programme of Agriculture Science, Computer Engineering, Master of Science, and Risk Management, which recorded only 1 respondent (0.2%) for each of the programme.

4.2.2 Central Tendency Measurement of Questionnaire

In this section, means and standard deviation for each of the items in the questionnaire are generated using SPSS software. Mean is the average of a set of data. In this study, the mean values that close to 5 is defined as most of the respondents were agreed to the items. While mean values close to 1 meaning that most of the respondents were disagreed to the items (Hayes, 2023). Standard deviation is defined as a measurement on how far a data set deviates from its mean. A high standard deviation value means that the more dispersed of the data (Brown, 2023).

4.2.2.1 Stress

Table 4.2.2.1.1: Central Tendency Measurement of Stress

	Item	Mean	Standard Deviation
S1	I am always worried when faced with situations beyond my control.	3.48	0.971
S2	I am always afraid of my future.	3.38	1.081
S3	I fear I may not attain my goals.	3.58	0.975
S4	I am always unconfident about my ability to handle personal problems.	3.19	1.097
S5	I am not willing to eat or loss of appetite when I face problems.	2.82	1.141
S6	I have trouble relaxing.	2.73	1.134

Source: Obtained from SPSS

Table 4.2.2.1.1 shows the means and standard deviation of each item in the dependent variable, stress. S3 recorded the highest value of mean (3.58), followed by S1 (3.48), S2 (3.38), S4 (3.19), and S5 (2.82). The lowest mean

value was recorded for S6, which was 2.73. While for standard deviation, S1 has the lowest value which was 0.971. The second lowest was S3 (0.975), followed by S2 (1.081), S4 (1.097), and S6 (1.134). S5 has the highest value of standard deviation, which was 1.141.

4.2.2.2 Neuroticism

Table 4.2.2.2.1: Central Tendency Measurement of Neuroticism

	Item	Mean	Standard Deviation
N1	I consider myself a depressed person.	2.76	1.104
N2	I consider myself a person who gets nervous easily.	3.45	1.077
N3	I am a person who is easily disturbed.	3.29	1.065
N4	I consider myself a moody person.	3.23	1.096
N5	I get emotional ups and downs easily.	3.21	1.108
N6	I am easily irritated when things are out of my control.	3.27	1.111

Source: Obtained from SPSS

Table 4.2.2.2.1 illustrated the means and standard deviation for each item in the independent variable, neuroticism. According to the table, N2 has the highest mean value, which was 3.45, followed by N3 (3.29). The mean value for N6, N4 and N5 were 3.27, 3.23 and 3.21, respectively. The lowest mean value was for N1, which was 2.76. While for standard deviation, N3 (1.077) has the lowest standard deviation, followed by N2 (1.077). The standard deviation value for N4, N1 and N5 were 1.096, 1.104 and 1.108, respectively. N6 recorded the largest standard deviation value, which was 1.111.

4.2.2.3 Conscientiousness

Table 4.2.2.3.1: Central Tendency Measurement of Conscientiousness

	Item	Mean	Standard Deviation
C1	I always plan for my future.	3.33	1.006
C2	I always do things based on my plans.	3.29	1.026
C3	I always work hard for my job.	3.62	0.877
C4	I am responsible for my job.	3.92	0.827
C5	I always complete my tasks on time.	3.65	0.960
C6	I always make sure my schedules are organized.	3.45	0.982

Source: Obtained from SPSS

Table 4.2.2.3.1 demonstrated the means and standard deviation for each item in the independent variable, conscientiousness. Based on the table, C4 has the highest mean value, which is 3.92, followed by C5 with 3.65 of mean value. The mean values for C3, C6 and C1 were 3.62, 3.45 and 3.33, respectively. For the standard deviation, C4 recorded the lowest value which was 0.827. The second lowest standard deviation value was 0.877 for C3, followed by 0.960 for C5, 0.982 for C6, and 1.006 for C1. C2 recorded the highest value of standard deviation which was 1.026.

4.2.2.4 Self-Expectation

Table 4.2.2.4.1: Central Tendency Measurement of Self-Expectation

	Item	Mean	Standard Deviation
SE1	I get upset when things don't go as planned	3.44	0.990
SE2	I am afraid I won't live up to my own expectations.	3.54	1.010
SE3	I always feel that the results of my recent tests are imperfect.	3.37	1.024
SE4	I always strive to enhance my personal goals.	3.51	0.856
SE5	I always do an excellent job on the tasks assigned for the courses.	3.35	0.843

Source: Obtained from SPSS

Table 4.2.2.4.1 showed the means and standard deviation for each item in the independent variable, self-expectation. According to the table, SE2 has the highest mean value, which was 3.54. The second highest mean value was 3.51 for SE4, followed by SE1 (3.44), and SE3 (3.37). SE5 has the smallest mean value, which was 3.35. For the standard deviation, SE5 recorded the lowest value which was 0.843. The standard deviation for SE4, SE1 and SE2 were 0.856, 0.990 and 1.010, accordingly. SE3 recorded the largest standard deviation value, which was 1.024.

4.2.2.5 Parental-Expectation

Table 4.2.2.5.1: Central Tendency Measurement of Parental Expectation

	Item	Mean	Standard Deviation
PE1	My parents expect me not to offend their opinion.	2.83	1.108
PE2	My parents expect me to get excellent performance in my studies.	3.10	1.090
PE3	My parents always expect me to have better performance than others.	2.88	1.188
PE4	My parents expect me to have a high-paying job in the future.	3.23	1.134
PE5	My parents are expecting me to pursue their ideal careers.	2.57	1.217
PE6	My parents expect me to behave maturely when away from home.	3.50	1.039

Source: Obtained from SPSS

Table 4.2.2.5.1 illustrated the means and standard deviation for each item in the independent variable, parental-expectation. Based on the table, the items that recorded highest mean value was PE6 with the mean value 3.50. The mean values for PE4, PE2, PE3 and PE1 were 3.23, 3.10, 2.88 and 2.83, respectively. While PE5 has the smallest mean value, which recorded 2.57. For the standard deviation, PE6 recorded the lowest value which was 1.039 among the six items. The following were PE2 (1.090), PE1 (1.108), PE4 (1.134), and PE3 (1.188). The highest value of standard deviation was 1.217 for PE5.

4.2.2.6 Social Influence

Table 4.2.2.6.1: Central Tendency Measurement of Social Influence

	Item	Mean	Standard Deviation
SI1	I often use social media to compare myself with others.	2.97	1.159
SI2	I have always relied on the media to get advice from other people on what I should do.	2.93	1.078
SI3	I care about how other people think of me.	3.42	1.125
SI4	I prefer to do what other people typically do.	2.96	1.049
SI5	I am easily affected by the different perspectives of the people around me.	3.24	1.037
SI6	I feel inferior to others who are more intelligent.	3.24	1.061

Source: Obtained from SPSS

Table 4.2.2.6.1 demonstrated the means and standard deviation for each item in the independent variable, social influence. According to the table, item with the largest mean value was SI3, which recorded 3.42. The second largest mean values were SI5 and SI6 which recorded 3.24, simultaneously. The other three items have a similar mean value, which were 2.97 for SI1, 2.96 for SI4, and the lowest was 2.93 for SI2. For standard deviation, the lowest value was 1.037 for SI5. The following items were SI4 (1.049), SI6 (1.061), SI2 (1.078) and SI3 (1.125). Among the six items, SI1 recorded the largest standard deviation value, which was 1.159.

4.2.2.7 Central Tendency Measurement for Variables

Table 4.2.2.7.1: Central Tendency Measurement for Variables

	Variable	Mean	Standard Deviation
Dependent Variable	Stress	3.1958	0.75285
Independent Variables	Neuroticism	3.2045	0.79995
	Conscientiousness	3.5428	0.67017
	Self-Expectation	3.4418	0.66468
	Parental-Expectation	3.0178	0.85843
	Social Influence	3.1277	0.81893

Source: Obtained from SPSS

Table 4.2.2.7.1 described the summary of central tendency measurement for the dependent and independent variables. The table shows that the dependent variable, stress, recorded a mean value of 3.1958, and standard deviation 0.75285. In between the five independent variables, conscientiousness has the highest mean value, which was 3.5428. The following were self-expectation (3.4418), neuroticism (3.2045) and social influence (3.1277). Parental-expectation recorded the smallest mean value of 3.0178. While for standard deviation, self-expectation recorded the lowest value of 0.66468, followed by conscientiousness (0.67017), neuroticism (0.79995), and social influence (0.81893). The highest standard deviation value was 0.85843 for parental-expectation.

4.3 Diagnostic Checking

4.3.1 Normality

4.3.1.1 Skewness and Kurtosis Assumption

In this study, the assumption of normality test determined by 2 approaches, which were value of skewness and kurtosis. If the sample size of the study consisted of more than 300 respondents, the skewness value that reported below -2 or above 2 can be considered as non-normality. While proper kurtosis that more than value 7 or less than -7 can be considered as non-normality.

Table 4.3.1.1.1: Normality Test

	Skewness	Kurtosis
Stress	-0.159	0.228
Neuroticism	-0.259	0.116
Conscientiousness	-0.122	0.080
Self-Expectation	-0.357	0.886
Parental-Expectation	-0.165	-0.179
Social Influence	-0.089	0.190

Source: Obtained from SPSS

The table 4.3.1.1.1 illustrated that the normality test for independent and dependent variables in the terms of skewness and kurtosis value. SPSS software reported that the skewness value for variables which were stress, neuroticism, conscientiousness, self-expectation, parental-expectation and social influence were -0.159, -0.259, -0.122, -0.357, -0.165 and -0.089 respectively. Since all the skewness values were in negative, the distribution was slight left-skewed. While the kurtosis values for the variables (stress, neuroticism, conscientiousness, self-

expectation, parental-expectation and social influence) were 0.228, 0.116, 0.08, 0.886, -0.179, and 0.19 respectively. Since the skewness and kurtosis value for all variables fulfilled the assumption of normality, therefore, the result can be concluded as normally distributed.

4.3.1.2 Quantile-Quantile (Q-Q) Plot

Q-Q plot had been applied in this study to determine the presence of normality. According to Huang et al. (2019), the normal distributed research can be proven when the Q-Q plot displayed on the 45-degree reference line in the graph.

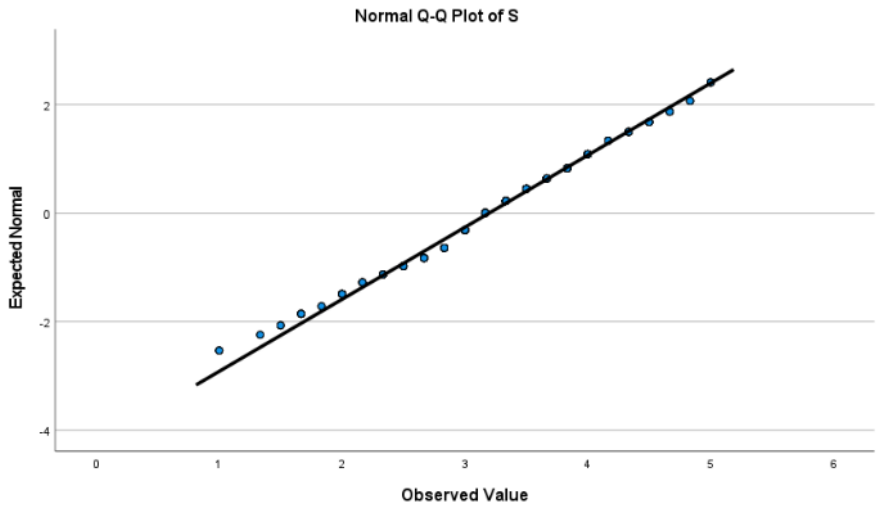

Figure 4.3.1.2.1: Q-Q Plot Distribution for Stress

Source: Obtained from SPSS

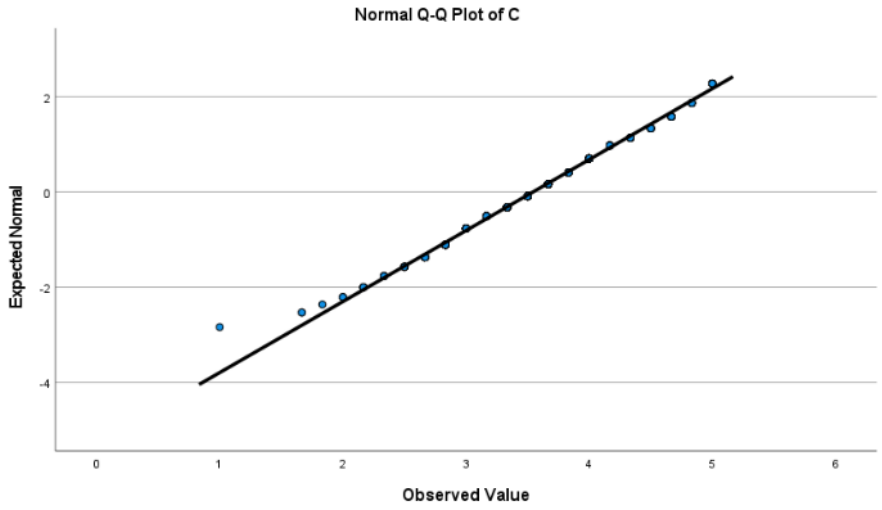

Figure 4.3.1.2.2: Q-Q Plot Distribution for Neuroticism

Source: Obtained from SPSS

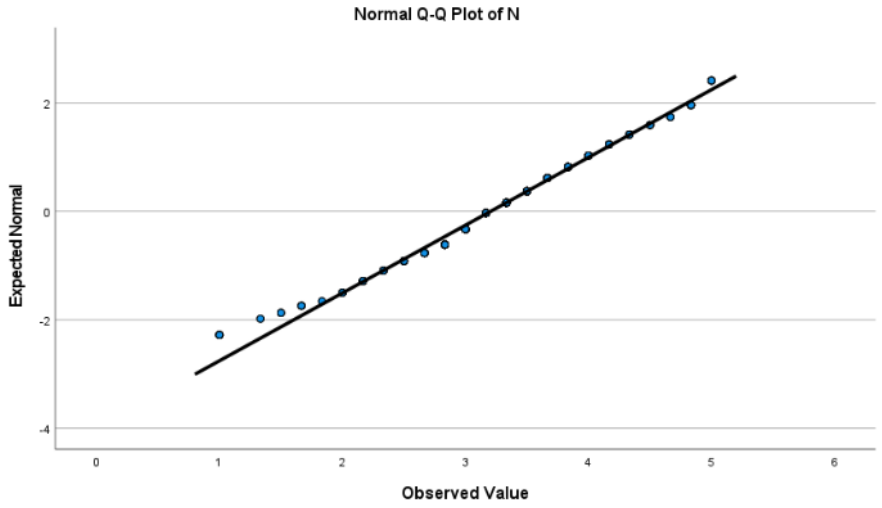

Figure 4.3.1.2.3: Q-Q Plot Distribution for Conscientiousness

Source: Obtained from SPSS

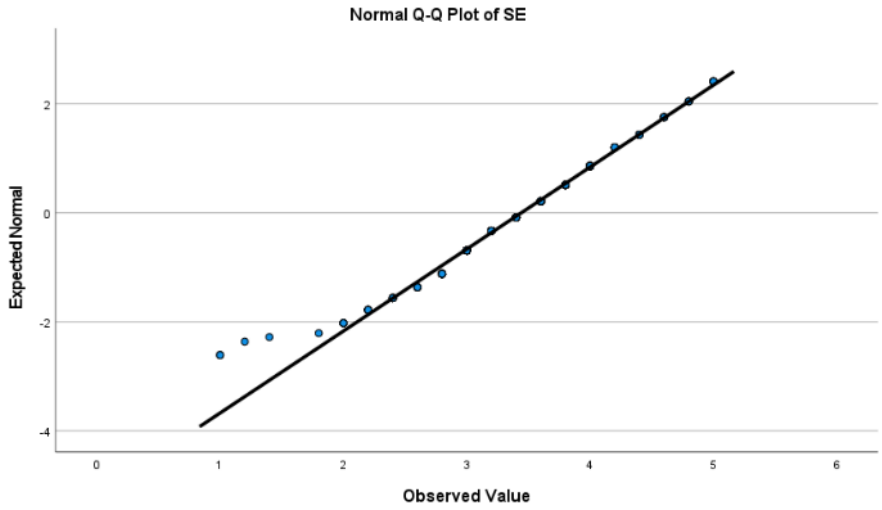

Figure 4.3.1.2.4: Q-Q Plot Distribution for Self-Expectation

Source: Obtained from SPSS

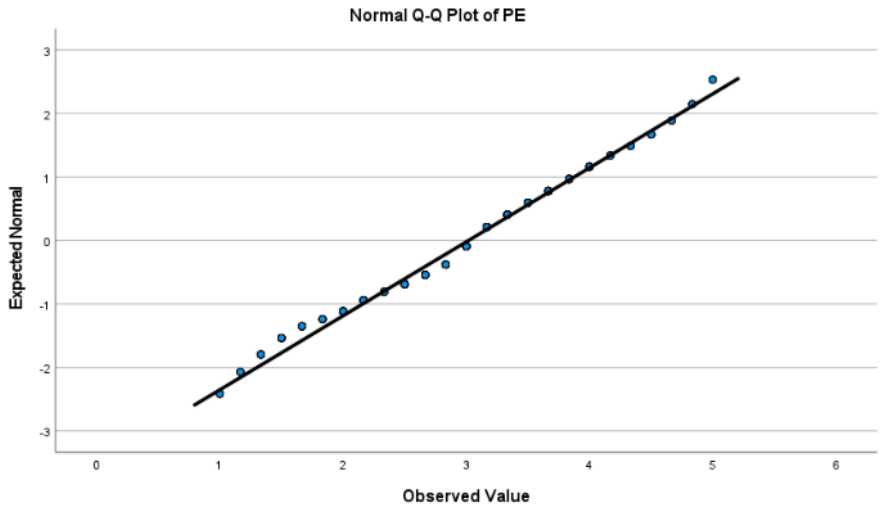

Figure 4.3.1.2.5: Q-Q Plot Distribution for Parental-Expectation

Source: Obtained from SPSS

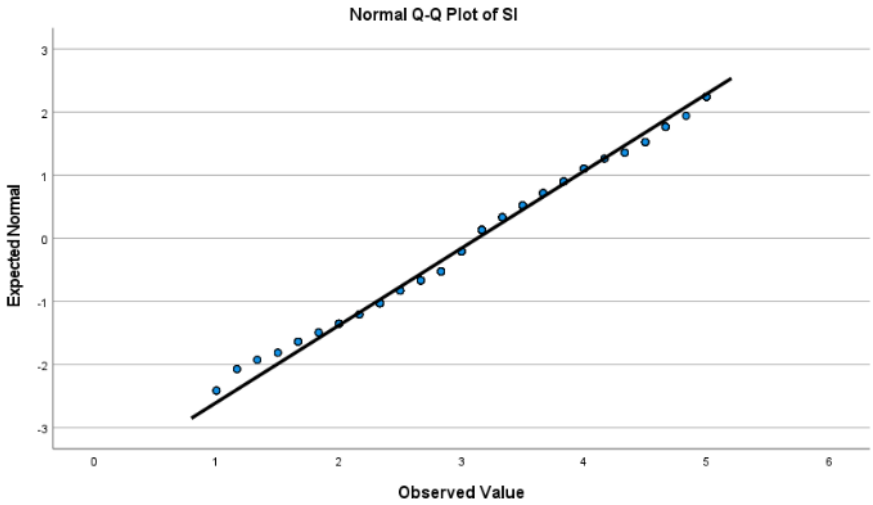

Figure 4.3.1.2.6: Q-Q Plot Distribution for Social Influence

Source: Obtained from SPSS

The Figure 4.3.1.2.1 illustrated that the Quantile-Quantile plot graph for independent variable, which is stress, indicated that the distribution is a better fit to the data set. While the Figure 4.3.1.2.2, 4.3.1.2.3, 4.3.1.2.4, 4.3.1.2.5, and 4.3.1.2.6 represented the Q-Q plot distribution graph for independent variables which were neuroticism, conscientiousness, self-expectation, parental-expectation and social influence respectively. The Q-Q plot graphs explained that the data plot scattered can be shown approximately in straight line, which the residual can be defined as normally distributed.

As conclusion, the dependent and independent variables in this study showed no violation towards the assumption of normality according to the results obtained through skewness values, kurtosis value and Q-Q plots from SPSS software. Therefore, the study can be concluded that all the variables were normally distributed.

4.3.2 Multicollinearity

In this study, VIF and tolerance value were utilized to detect the multicollinearity problem. The VIF score equal to 1 means no multicollinearity problem occurs in the regression. If the VIF score falls between 1 to 5, moderate correlation detected in the regression but is acceptable. However, if the VIF score is higher than 5 or the tolerance value is lower than 0.1 to 0.2, multicollinearity problem is detected in the regression model.

Table 4.3.2.1: Tolerance Value and Variance Inflation Factor (VIF)

	Collinearity Statistics	
	Tolerance	VIF
Neuroticism	0.632	1.583
Conscientiousness	0.796	1.256
Self-Expectation	0.586	1.707
Parental-Expectation	0.789	1.268
Social Influence	0.591	1.692

Source: Obtained from SPSS

According to Table 4.3.2.1, the VIF score for neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence were 1.583, 1.256, 1.707, 1.268 and 1.692, respectively. All the values were fall between 1 to 5 and were closed to 1, thus moderate correlation was detected between the independent variables and is acceptable. The tolerance value for neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence were 0.632, 0.796, 0.586, 0.789 and 0.591, accordingly. Since all the tolerance value were not lower than 0.2, no multicollinearity problem was detected. As a result, no multicollinearity problem exists in the regression.

4.3.3 Heteroscedasticity – Breusch Pagan Godfrey Test

Table 4.3.3.1: Summary of Breusch Pagan Godfrey

Heteroscedasticity Test: Breusch-Pagan-Godfrey	
$\boldsymbol{H0 = Homoscedasticity}$	
$\boldsymbol{H1 = Heteroscedasticity}$	
F-statistic	**Prob, F**
1.718	0.129

Source: Obtained from SPSS

In this study, Breusch Pagan Godfrey test is a typical method to detect the heteroscedasticity problem. This study utilizes SPSS to generate P-value for heteroscedasticity testing purpose. A p-value that greater than 0.05 indicate that heteroscedasticity does not exist, while p-values less than 0.05 indicate the opposite. Based on the table above, the p-value (0.129) was greater than significant value at 0.05, the researchers will not reject the null hypothesis. As a result, there is a no heteroscedasticity problem exists.

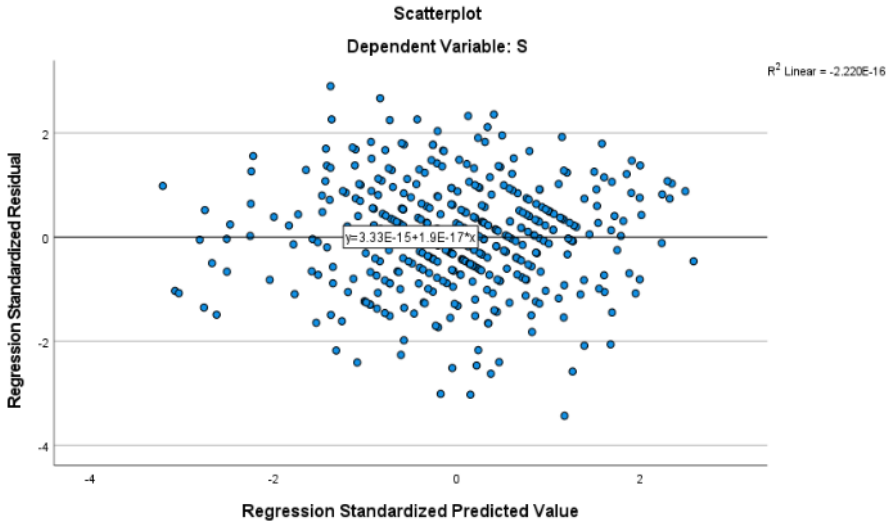

Figure 4.3.4.1: Scatterplot for Residuals

Source: Obtained from SPSS

In a regression model, heteroscedasticity occurs when the variance of the errors across independent variable levels not being constant. When the variance of error terms remains the same over all independent variables, the term homoscedasticity occurred. This assumption was met because the scatterplot displayed above indicates that the majority of residuals are clustered near zero or the horizontal line.

4.4 Inferential Analysis

4.4.1 Multiple Linear Regression Research Model

Table 4.4.1.1: Summary of Multiple Linear Regression Coefficients

Variables	MLS Result
Constant	0.797
	(0.000)*
Neuroticism	0.499
	(0.000)*
Conscientiousness	-0.107
	(0.012)*
Self-Expectation	0.097
	(0.004)*
Parental-Expectation	0.186
	(0.000)*
Social Influence	0.079
	(0.051)

** Coefficient is significant at 5% significance level*

Source: Obtained from SPSS

Stress = 0.797 + 0.499 (Neuroticism) – 0.107 (Conscientiousness) + 0.097 (Self-Expectation) + 0.186 (Parental-Expectation) + 0.079 (Social Influence)

In this study, Multiple Linear Regression (MLR) is used to analyses the presence of significant relationship between the five independent variables (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) and dependent variable (stress among UTAR students) which also the constant. The table shows that social influence has the p-value of 0.051

which is greater than significant value at 0.05, this indicated that there is no significant relationship between stress among UTAR students and social influence. Hence, the researchers do not reject the null hypothesis. However, the remaining four factors' p-value was smaller than significant value at 0.05, indicate that there is significant relationship between neuroticism, conscientiousness, self-expectation, parental-expectation, and stress among UTAR students. Thus, the null hypothesis has been rejected. Based on the MLS result, neuroticism, self-expectation and parental-expectation have positive relationship with stress, while conscientiousness has negative relationship with stress.

Table 4.4.1.2: Regression Statistics of Multiple Linear Regression

Regression statistics	
Multiple R	0.712
R square	0.507
Adjusted R-square	0.501
F-statistic	89.170
Prob (F-statistic)	0.000*

** P-value is significant at 5% significance level*

Source: Obtained from SPSS

In this study, researchers using Adjusted R-squared to determines whether a regression model is well fitted. The dependent variable (stress) that used in this study is quantified by the proportion of the variance that can be explained by the study's independent variables (neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence) that included in the regression equation. Adjusted R-squared ranges from 0 to 1, just like the regular R-squared. Accordingly, the independent variables explain a greater portion of the variation in the dependent variable (Team, 2020). From the table above, an Adjusted R-squared value of 0.501 in a multiple linear regression model indicates that approximately 50.1% of the variability in the stress is explained by the

neuroticism, conscientiousness, self-expectation, parental-expectation, and social influence included in the model. It indicates that the model has a moderate fit to the data. The results suggest that the model has some predictive power and explains a considerable portion of the dependent variable's variability in the study. Furthermore, the F-test is employed to ascertain if the regression model effectively accounts for the variability observed in the dependent variable. As shown in the table above, F-statistic (89.170) exceeds critical value (2.21), and the p-value (0.000) is below significant level (0.05). Hence, the researchers reject the null hypothesis. The results therefore show the model is significant to explain the stress among UTAR students in Malaysia.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.1 Statistical Summary

The target population for this study is mainly focus on the UTAR students in Malaysia. According to the data collected and the result generated from SPSS software, the independent variables which are neuroticism, conscientiousness, self-expectation, and parental-expectation illustrated that there were significantly affect the dependent variable, stress among UTAR students in Malaysia. While the result obtained for social influence factor showed insignificant impact on the stress among UTAR students in Malaysia.

Table 5.1.1 Hypothesis Testing Result

	Hypothesis Testing	Coefficient value	P value	Result
H1	Neuroticism significantly affect stress among UTAR students in Malaysia	0.499	0.000	Significant
H2	Conscientiousness significantly affect stress among UTAR students in Malaysia	-0.107	0.012	Significant
H3	Self-expectation significantly affect stress among UTAR students in Malaysia	0.097	0.004	Significant
H4	Parental-expectation significantly affect stress among	0.186	0.000	Significant

	UTAR students in Malaysia			
H5	Social influence significantly affect stress among UTAR students in Malaysia	0.079	0.051	Insignificant

5.2 Discussion on Major Finding

5.2.1 Neuroticism significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 1 was accepted for the present study. The result explained that neuroticism has significantly affected the stress among UTAR students in Malaysia, with a positive relationship. The higher the neuroticism level, the higher the stress level. This result is consistent with the past studies that discussed in the literature review. A high neuroticism person means that the person emotion is instability and tend to negative emotion when experience uncontrollable situation or stress. This result was same with the finding found by Yang & Koo (2022) in which neuroticism was significantly related with negative emotional states such as depression and anxiety. University students in Taiwan with high level of neuroticism (high emotional instability) tend to be faced negative emotion compared with students with low level of neuroticism. This finding supported by the article in which high neuroticism person would be more likely to experience academic stress and thus causes depression (Valencia & Christian, 2022). High neuroticism people difficult to adapt stress due to low emotional control and more sensitive to stress. People that experience academic stress with few coping strategies will lead to depression. As a result, high neurotic person tends to be experience high level of stress.

5.2.2 Conscientiousness significantly affect stress among UTAR students in Malaysia

Table 5.1.1 illustrated that the hypothesis 2 was accepted for the present study. According to the table, the result illustrated that conscientiousness has significant influence the stress among UTAR students with a negative relationship. The higher the conscientiousness level, the lower the stress level among UTAR students. Some of the past studies has supported this finding. Liu et al. (2023) has found that conscientiousness has significant and negative relationship with university students' anxiety level. People with high level of conscientiousness has high self-regulation to take effective coping strategies when facing stressful situations. Thus, lower the stress level and reduce the possibility of anxiety. This finding supported by the article in which conscientiousness negatively correlated with stress due to the characteristic of high self-regulation (Luo et al., 2023). People with high conscientiousness have the ability to protect themselves from the stressful situations through their preventive behaviours. Moreover, conscientiousness' person has the ability to control emotion, responsible, and hardworking could manage themselves during stressful situations and absorbed the stress to become successful. However, Lin et al. (2014) found that high conscientiousness person may tend to anxiety and fatigue. A conscientiousness person might put too much effort or resources to achieve high job or academic performance. If the person depleted his/her resources, this would lead to higher stress. Thus, a significant and negative relationship has been shown between conscientiousness and stress among UTAR students in this study.

5.2.3 Self-expectation significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 3 was accepted for the present study. There was positively significant relationship and between self-expectation and stress among UTAR students in Malaysia. The higher level of self-expectation, the higher the stress level. This result is consistent with the past studies that discussed in the literature review. Pinquart & Ebeling (2020) found that higher self-expectations are expected to lead an individual to have a perfectionistic striving for academic performance. When people set high standards and goals for themselves, it can motivate them to work hard and achieve their aspirations. However, if these self-expectations become unrealistic or unattainable, they can contribute to increased stress levels. People might feel constant pressure to meet their own high standards, and the fear of failure or falling short of their self-imposed goals can lead to stress and anxiety. High-achieving individuals may therefore be at exceptionally high risk for these experiences.

5.2.4 Parental-expectation significantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 4 was accepted for the present study. The result shows that parental-expectation has significant and positively influencing stress among UTAR students in Malaysia. The higher level of parental-expectation, the higher the stress level of student academic performance. This outcome aligns with the previous research mentioned in the literature review. According to Sarma (2014) support that parental-expectations will directly affect their children's academic stress and further cause depression. When parents set high or unrealistic expectations for their children's academic

success or career paths, it can create significant pressure on the students to meet those expectations. This pressure can lead to increased stress levels as students may feel the need to constantly perform well and fear disappointing their parents. Tangade et al. (2011) discovered that students who were compelled by their parents to select their future professions exhibited elevated levels of stress. Consequently, uncontrolled parental-expectations can lead to an overbearing parental presence in their children's lives. This circumstance can result in students being resistant to parental interference and experiencing heightened stress levels.

5.2.5 Social Influence insignificantly affect stress among UTAR students in Malaysia

Table 5.1.1 has demonstrated that the hypothesis 5 was rejected for the present study. There was insignificant relationship between social influence and stress among UTAR students in Malaysia. This result is consistent with the past studies that discussed in the literature review. According to Telzer et al. (2018), social influences may affect positive and negative adjustment among adolescents. Positive social influence can motivate students to perform better academically and engage more actively in their studies. Healthy competition among peers can encourage students to strive for excellence and achieve their goals. Choukas-Bradley et al. (2015) found that peer influence is not necessarily a negative phenomenon, as it can also help explain how individuals adopt positive or adaptive behaviours. Peer pressure can also become a method of improving students' performance early in their college education. In spite of this, some university students believe that peer influence has negative effects. There is a possibility that these students might be under pressure to follow their peers' expectations and actions, which may lead to them taking on risky behaviours or actions that induce stress. The constant comparison to peers and the pressure to outperform them can create unhealthy competition and exacerbate stress.

Students may feel inadequate or stressed if they perceive others as more successful. However, as the results of this study showed that social influence had an insignificant effect on stress, they were similar to Rodriguez et al. (2003), which showed that social influence did not have any significant relationship with a person's stress level. Consequently, there are different perspectives from previous research on the relationship between social influence and stress. As a result, it is reasonable to suppose an insignificant relationship between social influence and stress among UTAR students.

5.3 Implication of Study

Implication of this research assist a better understanding on the factors influencing stress among UTAR students in Malaysia.

5.3.1 Theoretical Implications

James Lange theory was utilized to explain the relationship between neuroticism and stress. Sincero (2023) prove that the theory suggests that altering physiological responses could potentially influence emotional experiences, including the experience of stress. As per this theory, an individual's particular emotional experience is shaped by how they interpret the level of arousal, and this interpretation can be influenced by their previous experiences, cognitive processes, and emotional states. An individual with the characteristic of neuroticism, which is negative emotions, tends to be more stressed when facing difficulty (Kiziloglu & Karabulut 2023). According to Liu et al. (2021) indicates that high neuroticism people tend to have higher stress level. The high-stress level may cause people to experience negative emotions, anxiety, or depression, leading to poor performance. By utilizing the James-

Lange theory in this research, a clearer comprehension of the connection between neuroticism and stress can be achieved. Furthermore, this theory provides researchers with insights into how neuroticism can impact an individual's stress levels. Consequently, these findings offer direction for future investigations into the James-Lange Theory, suggesting that by mastering the regulation of physiological responses, individuals could potentially reduce the intensity of their adverse emotions.

Transactional Theory of Stress and Coping was utilized in this study to explain the relationship between conscientiousness and stress. According to this theory, stress emerges from a continuous interaction between an individual and their surroundings, wherein the individual's assessment of the circumstances and their coping mechanisms are of paramount importance. According to the Bartley & Roesch (2011), a high conscientiousness person using more problem-focus coping strategy as a protective from stress. The theory indicates that conscientious individuals may approach stressors with a proactive and organized mindset, emphasizing problem-focused coping strategies. However, their strong sense of responsibility and anticipation of potential stressors can also contribute to increased stress levels, particularly if they perceive their ability to meet their responsibilities is compromised. The relationship between conscientiousness and stress depends on how individuals appraise stressors, the coping strategies they employ, and the support systems available to them. By utilizing the Transactional Theory of Stress and Coping within this research, a deeper comprehension of how conscientiousness is linked to stress can be achieved. Furthermore, this theory provides researchers with insight into the impact of conscientiousness on an individual's stress level. As a result, this finding offers direction for future studies exploring the Transactional Theory of Stress and Coping within comparable contexts.

The principle of Expectancy Value Theory was utilized in this study to elaborate the relationship between self-expectation and stress. This theory is applied to

describe how an individual's beliefs about their expectancies and value to specific outcomes influence their motivation, decision-making, and attitudes towards their behaviour or performance. The Theory proposes that individuals believe that high expectancy tend to have the high subjective value to perform the performance. Rodriguez (2009) shows that students can self-impose these expectations with increasing attention to promote high levels of academic performance and self-expectations among higher educational students. However, the desire to meet high expectations can sometimes manifest as perfectionism, where students believe that anything less than perfect is unacceptable. According to Hope et al. (2013) have indicated that self-expectation and academic achievement significantly affect different conditions under anxiety, depressive symptoms, and perceived stress. By applying theory of Expectancy Value in this study, the concept of self-expectation related to stress can be defined better. Also, this theory provided the researchers a viewpoint on how self-expectations can affect individual's stress level. Thus, this result can be used as a guidance for further study or research on Expectancy Value Theory that utilized the similar variables.

The Theory of Social Stress can be explained as social stress can be developed through the external factors. This theory proposes that an individual's stress experiences can be notably influenced by the social environment, encompassing interpersonal interactions, societal norms, and cultural elements. When applied to students, the social stress theory helps explain how social influences impact their stress levels, particularly in the context of academic environments. Students often engage in social comparison, where they assess their abilities and achievements in relation to their peers. Academic environments can foster competition and comparison, leading students to feel pressured to meet or exceed their peers' achievements. This can result in heightened stress as they strive to maintain a certain image or level of achievement. According to Chen & Deng (2022b), students may compare themselves to their peers, leading to feelings of inadequacy or low self-esteem. Based on current study, social

influence is positive effect on stress among UTAR students. This indicates that students may feel pressure to conform to the expectations and behaviours of their peers. The theory underscores the importance of considering the social context in understanding students' stress experiences. Hence, this theory is suggested for the future researchers who are interested to investigate on social influence and stress.

5.3.2 Practical Implications

The current research found that neuroticism is significant and positively related to stress among UTAR students in Malaysia. This show that the higher level of neuroticism may lead to higher level of stress among UTAR students. According to Kiziloglu & Karabulut (2023), it indicates that an individual experiencing negative emotions could treat the stressors as more threatening or demanding than they are, resulting in elevated levels of stress. High neuroticism people tend to perceive a wider range of situations as stressful. They might interpret everyday challenges, academic demands, and social interactions as more threatening or burdensome, leading to an increased sense of stress. Therefore, people could recognize own neurotic tendencies and proactively engage in stress management techniques such as mindfulness, exercise, and relaxation to mitigate the impact of stress. Furthermore, people could engage in activities that foster resilience, such as participating in clubs, sports, or hobbies, to help manage stressors and build a stronger emotional foundation.

Conscientiousness has found to be negative significant relationship toward stress among UTAR students. This result shows that high conscientiousness can lead to less negative impact, thereby reducing the negative impact of stressors. Conscientiousness is associated with effective coping methods, such as problem-solving and seeking assistance from others. These strategies can mitigate the impact of stressors and help individuals manage stress more

effectively. High conscientiousness with high awareness of the stressful situation can help an individual to perform well by adapting to the stress. Consequently, individual can leverage their organizational skills to create effective schedules and prioritize tasks, reducing the likelihood of feeling overwhelmed by stressors. By refraining from overcommit oneself, acquiring the ability to assign tasks and cooperate with colleagues. This help to mitigation of assuming excessive obligations and encountering stress. Through comprehension of conscientiousness, individuals can utilize the positive aspects of this characteristic, while also tackling potential issues like perfectionism and taking on too much. Striking a balance between conscientious endeavors, self-care, and adaptability can contribute to enhanced productivity, fulfillment, and overall well-being.

This research was proving that self-expectation and parental expectation were significantly affected the stress among UTAR students. Students with high self-expectations might adopt a perfectionistic mindset, where they feel that anything less than perfection is unacceptable. Striving for perfection can lead to chronic stress, as they are always trying to meet an impossibly high standard. When parents have high expectations for their children's academic success, students might feel pressure to meet or exceed these expectations. The fear of disappointing their parents can lead to chronic stress as they strive to live up to these standards. Therefore, people may use this study as a principle to guide students in creating a balanced schedule that allows time for academic pursuits, self-care, relaxation, and social activities. In addition, students should pay more attention on making decisions that align with their own interests and passions, even if they differ from their parents' expectations. This can ensure that students are equipped to manage stress and navigate the challenges of academic life.

5.4 Limitations of Study

In this study, various limitations have been identified and acknowledged. The sampling frame chosen was Malaysia universities students while this study only focuses on UTAR students. Respondents from other universities or colleges were not obtained for this study. Therefore, the result of this study might not be suitable to represent the factors that affect stress level among universities or colleges students in Malaysia.

Besides, this study has utilized quantitative method to collect the data based on survey questionnaire. The benefits of this method are to collect respondents' social characteristics, attitudes, behaviour, views and reason for action toward the purpose of a research (Bulmer, 2004). However, people's views may change over the time, influenced by their experiences and attitudes. As a result, the respondents' perspective on the factors affecting the stress level might change, and the result could be less accurate in the future.

Last but not least, this study has utilized a non-probability sampling method which is convenience sampling method. Due to the limited time for this study, this sampling method can benefit the researchers to gather information and data in a shorter time and lesser costs. Thus, this study may only have collected the perspectives of some UTAR students, but not all UTAR students. Therefore, the result of this study might be less accurate in explaining the relationship between the factors affecting stress level among UTAR students.

5.5 Recommendations

Due to the limited resources and time constraint, this study only utilized convenience sampling in collecting the perspective from respondents in UTAR Kampar campus. The convenience sampling not only could help to reduce the time and cost consumption, the researchers also could gather the viewpoints from certain area's respondents. However, convenience sampling unlike probability sampling which selected randomly, is unable to obtain the result could represent the whole population. According to Pace (2021), the probability sampling is a method that provided the equal chances for the respondents from population based on the randomised principle. Therefore, the future researchers should obtain more accurate data by utilizing probability sampling method to gather all the responses from the population, and randomly selected from the responses. The results that using the probability sampling method can be more representative. Since the study only concentrated in Universiti Tunku Abdul Rahman students, the future researchers should enhance the target population to other universities that located in Malaysia, to improve the result and quality of the study in understanding the factor that affecting stress among university students.

In addition, this study employs a quantitative approach by sharing the survey form to the target respondents. The questionnaire the researchers constructed was limited to a few scale points. Future researchers should expand the scope of responses, such as providing answer space for responses or open-ended questions to express their own views and ideas. Not only that, but researchers should improve behavioural studies by involving some respondents using physical platforms such as interview sessions. This approach could help researchers gain a deeper understanding of respondents' emotions and reactions when they answered stress-related questions. Since research can only capture recent feelings and opinions of all respondents, future researchers should always update status by capturing responses from respondents over time.

5.6 Conclusion

This study aimed to investigate the factors that affected the stress among Universiti Tunku Abdul Rahman (UTAR) students in Malaysia. Ultimately, the result of this study had supported four hypotheses which are H_1 neuroticism, H_2 conscientiousness, H_3 self-expectation and H_4 parental-expectation significantly affected the stress among UTAR students. However, the results of this study also demonstrated that the social influence had no significant effect on the stress of UTAR students. The determinants that causing stress among the university students had been comprehensively explored in this study, and figured out the aspects from personality traits, expectations, and social influences. Although this study has limitation in the ability of the researchers and the selection of the target population, this study still can be utilized as a reference for the future researchers to have further investigation on the factors that influence other university students with different cultures and learning status in Malaysia.