

SOCIAL ANXIETY AND SOCIAL SUPPORT
PERCEIVABILITY AMONG UNDERGRADUATE
STUDENTS IN UNIVERSITI SAINS MALAYSIA

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By

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LIST OF ABBREVIATIONS

| | |
|-------|--|
| LSAS | Liebowitz Social Anxiety Scale |
| MSPSS | Multidimensional Scale of Perceived Social Support |
| SA | Social Anxiety |
| SPSS | Statistical Package Social Sciences |
| USM | Universiti Sains Malaysia |

**KEBIMBANGAN SOSIAL DAN KEBOLEHLIHATAN SOKONGAN SOSIAL
DALAM KALANGAN PELAJAR PRASISWAZAH DI UNIVERSITI SAINS
MALAYSIA**

ABSTRAK

Kebimbangan sosial merupakan salah satu subkategori kebimbangan yang paling lazim yang dicirikan oleh perasaan cemas yang bertambah buruk dalam situasi sosial. Salah satu faktor yang mempengaruhi kebimbangan sosial ialah sokongan sosial yang dirasakan oleh setiap individu. Kajian keratan rentas dilakukan untuk mengetahui kebimbangan sosial dan kebolehlihatan sokongan sosial dalam kalangan pelajar prasiswazah di USM. Soal selidik yang digunakan dalam kajian ini adalah ‘Liebowitz Social Anxiety Scale’ (LSAS) dan ‘The Multidimensional Scale of Perceived Social Support’ (MSPSS). Seramai 236 orang pelajar di USM yang memenuhi kriteria kemasukan dan pengecualian terlibat dalam kajian ini. Data yang dikumpulkan dianalisis secara statistik menggunakan perisian SPSS versi 27.0. Statistik deskriptif dan Pearson’s Chi Square digunakan untuk analisis data. Keputusan menunjukkan 84.7% pelajar prasiswazah mengalami kebimbangan sosial manakala 15.3% pelajar prasiswazah tidak mengalami kebimbangan sosial. Kajian ini juga mendapati 60.2 % pelajar prasiswazah mempunyai tahap persepsi sokongan sosial yang tinggi, manakala 34.3% mempunyai tahap sederhana dan hanya 5.5% mempunyai tahap persepsi sokongan sosial yang rendah. Akhir sekali, terdapat hubungan antara kelaziman kebimbangan sosial dan tahap persepsi sokongan sosial dalam kalangan pelajar prasiswazah di USM ($p=0.003$). Kesimpulannya, isu ini harus dipandang serius oleh pihak pengurusan universiti kerana kebanyakan pelajar mengalami gejala tersebut tanpa mereka sedari.

SOCIAL ANXIETY AND SOCIAL SUPPORT PERCEIVABILITY AMONG UNDERGRADUATE STUDENTS IN UNIVERSITI SAINS MALAYSIA

ABSTRACT

Social anxiety is one of the most prevalent subcategories of anxiety that is characterized by anxious feelings that are worsened in social situations. One of the factors that influence social anxiety is the social support of an individual perceives. of A cross-sectional study was carried out to study the social anxiety and social support perceivability among undergraduate students in USM. The questionnaire used in this study were Liebowitz Social Anxiety Scale (LSAS) and The Multidimensional Scale of Perceived Social Support (MSPSS). A total of 236 undergraduate students in USM who fulfilled the inclusion and exclusion criteria were involved in this study. Data collection was statistically analysed using the SPSS software version 27.0. Descriptive statistics and Person's Chi Square were used for data analysis. The results show 84.7% of undergraduate students had social anxiety while 15.3% of undergraduate students did not have social anxiety. This study also found that 60.2 % of the undergraduate students had a high level of social support perceivability, meanwhile 34.3% had medium level and only 5.5% had low level of social support perceivability. Lastly, there is a significant association between prevalence of social anxiety and level of social support perceivability among undergraduate students in USM ($p=0.003$). In conclusion, this issue should be taken seriously by the university management as most of the students experience the symptoms without them being aware of it.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This research proposal aims to assess the prevalence of social anxiety and social support perceivability among undergraduate students in Universiti Sains Malaysia (USM). The first chapter starts with the background of the study, problem statement, research questions, research objectives, and research hypothesis. In that chapter, the significance of study and conceptual and operational key terms used in this study are described well by the researcher.

1.2 Background of the Study

Social anxiety (SA) also known as social phobia is one of the most prevalent psychological disorders among individuals who suffer overwhelming fear and excessive self-consciousness in daily social situations. A person with SA will try to avoid the situation or deal with it with extreme worry because they are extremely anxious about being embarrassed, humiliated, rejected, or looked down upon in social situations (American Psychological Association, 2021). A person with SA may experience distress in any social situation, including having to speak in public, meeting people in authority, being introduced to others, being the center of attention, being observed, and even seemingly insignificant situations like making a phone call (Malaysian Psychiatric Association, 2022). Social anxiety is a severe mental disorder that treatable, but it frequently remains undiagnosed and untreated (Valente, 2011). Without treatment, individuals with SA are at the risk of issues like lowered quality of life, worse social relationships, difficulty managing everyday life, and non-adherence to treatment (Valente, 2011).

Social anxiety is the third most prevalent mental health care issue in the world (Malaysian Psychiatric Association, 2022). Previous study reported that this illness affects 7 out of every 100 people at any given time, and 13 out of every 100 people will experience it at some point in their lives (Malaysian Psychiatric Association, 2022). A study has been conducted to explore the prevalence of SA around the world using a self-report survey of individuals from seven countries (Jefferies & Ungar, 2020). More than one third of respondents (36%) met the criteria for having SA, indicating that it more common than previously thought on a global prevalence (Jefferies & Ungar, 2020). In Malaysia, the prevalence of SA among students were reported in previous studies as 42.8% and 56% respectively (Al-Naggar *et al.*, 2013; Gill & Mohammad, 2010).

Social support is one of the social resources for coping with difficult life events (Özmete & Pak, 2020). It is the foundation of human networks that give social protection, and it is increasingly acknowledged as a crucial element of mental health (Munyan, 2021). The social support perceivable and coping skills were reported as the important factors that provide insight in reducing stress (Tam *et al.*, 2011). Perceived social support define as the subjective judgment that friends and family would competently assist with potential stressors (Lakey, 2015).

There are several studies that have shown perceived social support is related to the level of individual mental health. Perceived social support was found to be significantly correlated with psychological distress and satisfaction with life (Khawwaja *et al.*, 2021). According to the study, psychological distress is reduced by increased levels of social support. This research suggests that social support may be utilized to maintain a psychologically stable condition (Khawwaja *et al.*, 2021). A study has been conducted among nursing students from International Islamic University Malaysia (IIUM) to assess the social support and its association with depression, anxiety and stress symptoms

(Radeef & Faisal, 2020). It found that 8% of the nursing students with low level of perceived social support had higher score of depression, anxiety and stress symptoms (Radeef & Faisal, 2020).

1.3 Problem Statement

In 2017, a study has been conducted and found that 792 million individuals worldwide had a mental health issue and this corresponds to 10.7% of the world's population (Dattani *et al.*, 2021). According to the National Health and Morbidity Survey (NHMS) that the Ministry of Health (MOH) conducted in 2015, 29.2% of individuals aged 16 and older had mental health problems. One in three Malaysians experience mental health problems, with the prevalence being higher among young people (16–19 year old) and those from low-income families (Ministry of Health Malaysia, 2015). Mental illness in Malaysia also contributes to 8.6% of total disability-adjusted life-years (DALYs), ranking it one of the leading causes of disability and health loss (Raaj *et al.*, 2021).

According to the World Health Organization (WHO), anxiety disorder is the most common mental disorder followed by depressive disorder (World Health Organization, 2022). In Malaysia, a cohort of health students reported a highest prevalence of anxiety (85.1%), followed by stress (65%) and depression (51.4%) (Fauzi *et al.*, 2021). In addition, a survey done among 80 International Islamic University Malaysia (IIUM) students between age 18 and 23 showed in line data with 69% of respondents were experienced anxiety, stress or others (Nur *et al.*, 2021). A study found that students with social anxiety reported severe limitations in their academic, social and family relationship, which had a negative impact on the quality of life and they also described a number of clinical symptoms that had an impact on their functioning and social interactions (Hakami *et al.*, 2018).

Social anxiety may develop since childhood or adolescent and a person with social anxiety may experience improvement or deterioration in their condition when studying at higher institutional levels and it would depend on their life experiences as students (Wan Nadiah). People with social anxiety may overthinking about their interactions with others and worry about how their behaviour will affect future events (Russell & Topham, 2012). Their ability to participate in social interactions may be affected by these features, which also prevent them from reinforcing their own actual abilities and competencies that will results in reduced quality of life and be unable to socially engage with others (Russell & Topham, 2012).

1.4 Research Question

- i. What is the prevalence of social anxiety among undergraduate students in Universiti Sains Malaysia?
- ii. What is the level of social support perceivability among undergraduate students in Universiti Sains Malaysia?
- iii. Is there any association between prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia?

1.5 Research Objectives

1.5.1 General Objective

The aim of the study is to assess the prevalence of social anxiety and social support perceivability among undergraduate students in Universiti Sains Malaysia.

1.5.2 Specific Objectives

- i. To determine the prevalence of social anxiety among undergraduate students in Universiti Sains Malaysia.
- ii. To determine the level of social support perceivability among undergraduate students in Universiti Sains Malaysia.
- iii. To identify association between prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia.

1.6 Research Hypothesis

H₀: There is no significant association between prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia.

H₁: There is a significant association between prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia.

1.7 Conceptual and Operational Definitions

Table 1.1 Conceptual Definitions and Operational Definitions

| Terms | Conceptual | Operational |
|-------------------------------|--|--|
| Social Anxiety | Intense or persistent fear of being watched and judged by others (NIH, 2022). | One type of anxiety that common among students. It will be assessed by using Liebowitz Social Anxiety Scale (LSAS). |
| Social Support | Provide support or comfort to others, usually to aid in assisting them in coping with biological, psychological, and social problems (American Psychological Association, 2022). | Level of social support will be assess using The Multidimensional Scale of Perceived Social Support (MSPSS) questionnaire. |
| Perceivability | Ability to attain awareness or understanding of something (Merriam Webster, 2022). | How individuals view the social support from friends, family and significant others. |
| Undergraduate Students | Student who is studying for their first degree at a college or university (Cambridge Dictionary, 2022) | Individual who is undergoing degree course in School of Health Science, USM. |

1.8 Significance of the Study

Social anxiety is one of the major mental illnesses with higher prevalence than depression and stress (World Health Organization, 2022). Whenever comorbid conditions like depression, anxiety, or stress are present, it might be challenging to assess the level of suffering that experienced by a person with social anxiety who encountered a specific impairment. Hence, the researcher focused on students with a possible SA without comorbidity. There are several studies that related to the SA were carried out in Malaysia but most of them also examined other aspects of prevalent mental health conditions such as stress or depression.

Studies on social anxiety and perceived social support among students are relatively lacking when compared to the studies on other mental illness such as depression and stress in Malaysia. In particular, there was a study on the relationship between perceived social support and social anxiety in college students at Yunnan Normal University, China (Jiang & Luo, 2021). However, it also explores the mediating role of the sense of coherence (Jiang & Luo, 2021).

Taken together, social anxiety is a crucial problem that leads to the low quality of life, even among students, in Malaysia. However, a social anxiety and social support perceivability among undergraduate students in Malaysia are not fully understood. Thus, the current study is important to determine the prevalence of social anxiety and the level of social support perceivability among undergraduate students in Universiti Sains Malaysia. Moreover, the outcome of this study might help the staff and lecturers to understand their students better. A better understanding in social anxiety and social support perceivability among students will indeed lead to a healthy campus lifestyle.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviewing the related literature to prevalence of social anxiety and level of social support perceivability. It also presents information on social anxiety and social support based on previous studies. Lastly, it describes the theoretical framework chosen for this study.

2.2 Social Anxiety

Social anxiety that also known as social phobia, is defined as an extreme anxiety or fear of one or more social environments when the person may be subject to observation by others. An individual with social SA will have a difficulty in social interactions such as interacting with others or meeting new people, being watched especially while eating or drinking and presenting a performance in front of others such as giving a speech (SAMSHA, 2016). People with SA avoid social interactions or tolerate them with a considerable measure of distress in order to reduce possibility for scrutinizing (Moscovitch *et al.*, 2013). Their extreme fear could be viewed as excessive and unreasonable by some people. SA is not the same as shyness as it is a persistent worry that affects everyday activities, self-confidence relationship and life at work or school. Many individuals occasionally worry about social environments, but individuals with SA worry excessively before, during, and after them (NHS, 2020).

2.2.1 Prevalence of Social Anxiety

Social anxiety is disproportionately affected young people with at least one in five youth (9 to 17 years old) get a diagnosable mental health condition, and one in ten with a condition that significantly impaired them (Brookman, 2017). A study by Jefferies & Ungar (2020) was done to explore the prevalence of social anxiety around the world using

20-item self-report Social Interaction Anxiety Scale (SIAS) among 6,825 individuals aged 16 to 29 years from seven countries (Brazil, China, Indonesia, Russia, Thailand, US, and Vietnam). The study reported that more than a third of participants met the threshold for SA (23% to 58%) across the different countries (Jefferies & Ungar, 2020). The data was far exceeding the highest rate of SA (12%) reported previously in the US (Kessler *et al.*, 2005).

In Malaysia, anxiety disorder is one of the most prevalent mental health issues which has drawn worry and attention from many people, including international specialists and authorities. Mohamad *et al.*, (2021) conducted a national cross-sectional study at selected government and private universities throughout Malaysia to assess the prevalence risk of anxiety and its associated factors. The study reported the prevalent risk of anxiety was 29% and there were several factors associated with the risk of anxiety such as academic year, financial support, and poor sleep quality (Mohamad *et al.*, 2021). A study conducted to determine the prevalence of social anxiety problem among medical students in University Malaya showed 56% of the medical students experienced social anxiety with Social Phobia Inventory (SPIN) score more than 19 (Gill & Mohammad, 2014).

Furthermore, a study conducted among psychiatry master's degree applicant reported that 35% of the applicant had Social Phobia Inventory (SPIN) scores of 20 or above, indicating that they most likely had social anxiety disorder (Azhar *et al.*, 2017). However, no particular factors were discovered to be strongly related to those who were at risk (Azhar *et al.*, 2017).

2.3 Social Support

According to the American Psychological Association, social support can be defined as giving support or comfort to others, usually to aid in assisting them in coping

with biological, psychological, and social problems that may arise from any interpersonal relationship in a person's social network, including those with family, friends, neighbors, coworkers, caretakers, religious organizations, or support groups. The National Cancer Institute characterized social support as a support system made up of people of one's family, friends, neighbors, and community that may be contacted for psychological, material, and financial assistance when needed. Social support has a crucial role in maintaining good physical and mental health (Ozbay *et al.*, 2007).

2.3.1 Sources of Social Support

According to research, individuals who feel cared for and appreciated by others in their social settings and who have more satisfying and supportive interactions have better mental and physical health (Demaray *et al.*, 2005). Adolescents receive support from a variety of sources in their social environments on a daily basis, but not all of these sources may be equally crucial for teenage life satisfaction (Suldo & Huebner, 2006). The Multidimensional Scale of Perceived Social Support (MSPSS) described that sources of social support consist of three subscale which is family, friends and significant other (Zimet *et al.*, 2010).

The support relationships between parents and their children are crucial for preserving or changing the social structure of the family (Toyoshima & Nakahara, 2021). The children and adolescents depend on their parents for emotional and practical assistance such as affection and financial support, when parents are present, teenagers experience less stress, which improves mental health (Rueger *et al.*, 2016; Auerbach *et al.*, 2011). Previous study showed that adolescents' perceptions of their parents' support were more crucial to their life happiness than their perceptions of their friends', instructors', or classmates' support (Jiménez *et al.*, 2017). Interestingly, previous studies also reported that adolescents' perceptions of support from friends were more beneficial

to their wellbeing than those of their parents, teachers, or peers (Leme *et al.*, 2015; Bokhorst *et al.*, 2010). A meta-analysis showed that support from school personnel and teachers have a better connection with children's and teenagers' well-being compared to support from families and other sources (Chu *et al.*, 2010). Although there are contradictions of evidence in perceived social support from each sources, social support plays an important role in adolescent life.

2.3.2 Level of social support among students

A study conducted on 368 students in Ireland to assess the level of perceived social support using Multidimensional Scale of Perceived Social Support (MSPSS) (McLean *et al.*, 2022). The students were classified into a few groups and reported the level of social support in low, moderate and high social support groups were 32%, 33% and 35% respectively (McLean *et al.*, 2022). The same study reported a significant difference between female students (42%) and male students (27%) that experienced a social support group (McLean *et al.*, 2022). In Malaysia, a previous study was conducted to determine the level of social support among students as well as between male and female students (Lim *et al.*, 2020). The result showed that there was a significant difference between male and female students, with female students having a higher level of social support compared to male (Lim *et al.*, 2020). In addition, a similar study conducted in Malaysia by Tam *et al.* (2011) also found that females experienced higher social support compared to the males.

2.4 Social anxiety and perceived social support

According to the social causation model, social anxiety was caused by a lack of perceived social support (Jiang & Luo, 2021). There are several studies conducted to assess the relationship between prevalence of social anxiety and perceived social support. A study found that both men and women students from public university in the southern

United States who have social anxiety was associated with lower social support through lower expressiveness (Barnett *et al.*, 2021). A study also conducted among individuals with DSM-IV generalized social phobia and found that they score significantly lower on both measures of social support. It indicated that generalized social phobia related with low perceived social support may contribute to the emergence of co-morbid issues and should be specifically targeted by social phobia treatments (Torgrud *et al.*, 2004). Lastly, a study found that low social support was associated with higher risk for mental health symptoms of stress, anxiety and depression among undergraduate students in Shaanxi province during the COVID-19 pandemic in China (Id *et al.*, 2021).

2.5 Theoretical and Conceptual Framework of the Study

According to Hou *et al.* (2021) conceptual model framework from study “The Mediating Role of Perceived Social Support Between Resilience and Anxiety 1 Year After the COVID-19 Pandemic: Disparity Between High-Risk and Low-Risk Nurses in China”, the model demonstrates the relationship between resilience and anxiety and whether there was a difference between high-risk and low-risk nurses in the correlation between resilience and anxiety through perceived social support. This conceptual framework described that the relationship between resilience and anxiety may be mediated by perceived social support, and the direct and/or indirect effects of resilience on anxiety may be greater for high-risk nurses than for low-risk nurses.

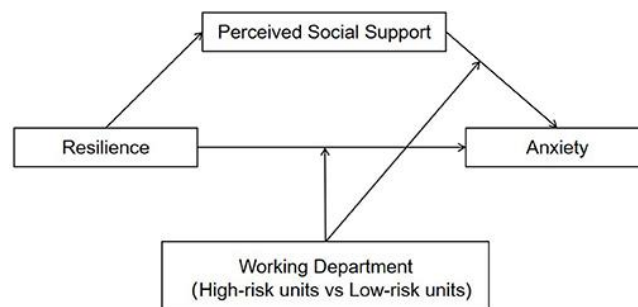


Figure 2.1 Conceptual framework by (Hou *et al.*, 2021)

In this study, the researcher will focus on the association between socio-demographic characteristics, level of social support perceivability and prevalence of social anxiety. The framework explained that sociodemographic characteristics (age, gender, ethnicity, programme of study, year of study) are anticipated to have an impact on level of social support perceivability. Additionally, it is anticipated that the level of social support perceivability will affect the prevalence of social anxiety disorder. Sociodemographic characteristics are also anticipated to directly affect the prevalence of social anxiety disorder.

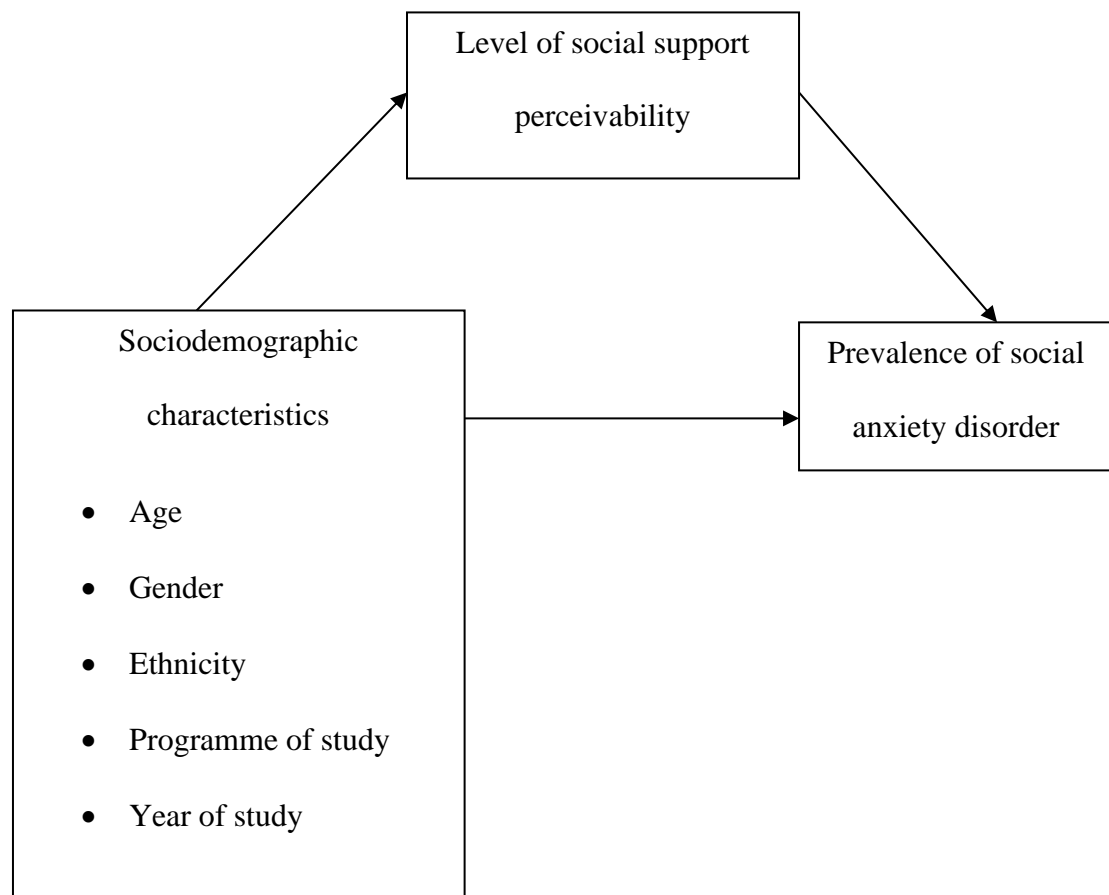


Figure 2.2 Conceptual framework of this study developed with adaptation from Hou et al. (2021)

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The aim of chapter three is to explain the approach and rationale for supporting the chosen research methods. It is very important to determine and understand the most appropriate research design to ensure the study's purpose is correctly conveyed. This chapter begins with the description and justification of the chosen research design. The chapter follows a description of the research location, duration, population, participant selection criteria, sampling plan, sampling plan, sample size estimation, instrumentation, variables and data collection plan. Finally, data analysis method, ethical consideration and expected research outcome are explained.

3.2 Research Design

In the current study, a cross sectional design was applied. A cross sectional design describes the data obtained from a specific population at a predetermined period (Cherry, 2022). This approach was appropriate to give a detail description of the prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia (USM).

3.3 Study Setting and Population

This study was carried out at the School of Health Sciences in Universiti Sains Malaysia, Kubang Kerian, Kelantan. This study was conducted between September 2022 and June 2023.

The sample population was undergraduate students in School of Health Science, Universiti Sains Malaysia that fulfilled the inclusion criteria. This study involved undergraduate students from the first to fourth year from several programme which were

nursing, dietetic, nutrition, audiology, speech pathology, biomedicines, sport science, forensic science, medical radiation and environmental and occupational health.

3.4 Sampling Plan

3.4.1 Sample Criteria

3.4.1.1 Inclusion Criteria

Subjects must meet the following criteria to be included in this study:

- Undergraduate students from first to fourth year.

3.4.1.2 Exclusion Criteria

Subjects are excluded from the study if they are fulfilling one of the following:

- Students who have been diagnosed with mental illness.

3.4.2 Sample Size Estimation

The sample size was calculated for each objective using Sample Size Calculator by Dr Wan Nor Arifin. The researcher has chosen the relative greater number of respondents at the end to fulfill the research objective. For objective one and two, the sample size is calculated using single proportion formula and the proportion data is taken from the previous study. The formula is as below:

$$n = \left(\frac{z}{\Delta}\right)^2 p(1 - p)$$

Whereby,

n = required sample size

z = value representing the desired confidence level,

$$Z_{0.05} = 1.96$$

Δ = desired level of precision, $\pm 5\%$

p = anticipated population proportion

For the first objective, the proportion data to determine the prevalence of social anxiety among undergraduate students in Universiti Sains Malaysia was taken from previous study by Al-Naggar et al. (2013), $p = 42.8\%$.

| 1 proportion - Estimation | |
|---|------------------------------------|
| Proportion (p): | <input type="text" value="0.428"/> |
| Precision (\pm proportion): | <input type="text" value="0.05"/> |
| Confidence level $100(1 - \alpha)$: | <input type="text" value="95"/> % |
| Expected dropout rate: | <input type="text" value="20"/> % |
| <input type="button" value="Calculate"/> <input type="button" value="Reset"/> | |
| Sample size, $n =$ | <input type="text" value="377"/> |
| Sample size (with 20% dropout), $n_{drop} =$ | <input type="text" value="472"/> |

Therefore, the minimal sample size is 377. After considering the 20% drop out, the calculated sample size is 472.

For the second objective, the proportion data to determine the level of social support perceivability among undergraduate students in Universiti Sains Malaysia was taken from previous study by Radeef & Faisal (2020), $p = 8\%$.

| 1 proportion - Estimation | |
|---|-----------------------------------|
| Proportion (p): | <input type="text" value="0.08"/> |
| Precision (\pm proportion): | <input type="text" value="0.05"/> |
| Confidence level $100(1 - \alpha)$: | <input type="text" value="95"/> % |
| Expected dropout rate: | <input type="text" value="20"/> % |
| <input type="button" value="Calculate"/> <input type="button" value="Reset"/> | |
| Sample size, $n =$ | <input type="text" value="114"/> |
| Sample size (with 20% dropout), $n_{drop} =$ | <input type="text" value="143"/> |

Therefore, the minimal sample size is 114. After considering a 20% drop out, the calculated sample size is 143.

For the third objective, the sample size is calculated using two proportion formula and the proportion data is taken from the previous study. The formula is as below:

$$n = \frac{P_1(1 - P_1) + P_2(1 - P_2)}{(P_1 - P_2)^2} (Z_\alpha + Z_\beta)^2$$

Whereby,

N = Required sample size

P = Anticipated population proportion

Z_α = Value of the standard normal distribution curve cutting off probability alpha in one tail for one-sided alternatives ($Z_\alpha = 1.96$)

Z_β = Power of study, 80% ($Z_\beta = 0.84$)

For objective three, data proportion to identify association between prevalence of social anxiety and level of social support perceivability among undergraduate students in Universiti Sains Malaysia was taken from previous study by Id et al. (2021), $p_1 = 0.41$; $p_2 = 0.6$.

2 proportions - Hypothesis Testing

| | | |
|---|-----------------------------------|------------|
| Proportion in control (p_0): | <input type="text" value="0.41"/> | |
| Proportion in case (p_1): | <input type="text" value="0.6"/> | |
| Significance level (α): | <input type="text" value="0.05"/> | Two-tailed |
| Power ($1 - \beta$): | <input type="text" value="80"/> | % |
| Expected dropout rate: | <input type="text" value="20"/> | % |
| <input type="button" value="Calculate"/> <input type="button" value="Reset"/> | | |
| Sample size, n = | <input type="text" value="108"/> | |
| Sample size (with 20% dropout), n_{drop} = | <input type="text" value="135"/> | |

The minimal sample size is 108 and after considering a 20% drop out, the calculated sample size was 135.

$$n = 135 \times 2$$

$$n = 270$$

Based on the three estimated sample sizes, the greatest sample size was selected in this study to ensure all of the objectives can be achieved, which is 472 undergraduate students who fulfilled the inclusion and exclusion criteria for research.

3.4.3 Sampling Method

This study used a simple random sampling method for the collection of data among undergraduate students in USM. A list of undergraduate students was obtained according to the programme of study and year of study from the academic office. The list of students' names was coded by unique number. The research randomizer software was used to generate a list of random numbers. Only the selected sample from the random sample be invited to participate in this study. The google form questionnaire link was sent to the selected subjects through the WhatsApp messaging application.

3.5 Instrumentation

3.5.1 Instrument

Data for this study was obtained through a structured questionnaire focused on the prevalence of social anxiety and level of social support perceivability among undergraduate student in Universiti Sains Malaysia (Appendix A). The instrument was divided into three sections as follows:

I. Part A (Socio-demographic data)

This section includes a questionnaire on socio-demographic data consists of five questions which include age, gender, ethnicity, years of study and programme of study.

II. Part B (Liebowitz Social Anxiety Scale (LSAS))

This section includes a questionnaire to assess social anxiety consist of 24 questions which separated for fear or anxiety and avoidance behaviour. It is the validated Liebowitz Social Anxiety Scale (LSAS) questionnaire by Dr. Michael R. Liebowitz. A

four-point Likert scale is used to rank anxiety (0= None, 1= Mild, 2= Moderate, 3= Severe) and avoidance behaviour (0= Never, 1= Occasionally, 2= Often, 3= Usually).

III. Part C (The Multidimensional Scale of Perceived Social Support (MSPSS))

This section includes a questionnaire to assess the level of social support perceivability. It is the validated The Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet et al., contains 12 items that assess the perceived adequacy of social support from three different sources which is family, friends, and a significant other. A seven-point Likert scale is used to rank the perceived social support (1= Very Strongly Disagree, 2= Strongly Disagree, 3= Mildly Disagree, 4= Neutral, 5= Mildly Agree, 6= Strongly Agree, 7= Very Strongly Agree). Items for family subscales was items 3, 4, 8, 11, for friends subscale was items 6,7, 9, 12 and for significant other was items 1, 2, 5 and 10. Mean for three different sources of social support was calculated by divided by four and mean score ranging from 1 to 2.9 considered low support, a score of 3 to 5 considered moderate support and a score from 5.1 to 7 considered high support.

3.5.2 Translation of Instrument

The original questionnaire was established in English. As the study population were students that expected to understand well and comprehend English, the questionnaire kept in the original English version.

3.5.3 Validation and Reliability of Instrument

Two questionnaires used in this study were Liebowitz's social anxiety scale (LSAS) and The Multidimensional Scale of Perceived Social Support (MSPSS). The Cronbach's alpha coefficient of the questionnaire are 0.97 and 0.80 respectively (Aydın, 2017; Ghezelbash *et al.*, 2015) which reliable for the data collection ($\alpha > 0.7$).

3.6 Variables

3.6.1 Variable Measurement

This study has identified two different variables which were dependent variable and independent variable. The variables in this research study were as shown in Table 3.1.

Table 3.1 Independent and dependent variables

| | |
|-----------------------|---|
| Dependent variables | <ul style="list-style-type: none">• Prevalence of social anxiety among undergraduate students in Universiti Sains Malaysia |
| Independent variables | <ul style="list-style-type: none">• Level of social support perceivabilty among undergraduate students in Universiti Sains Malaysia |

3.6.2 Variable Scoring

Table 3.2 The score and symptoms severity

| Score | Symptoms severity |
|---------|-------------------|
| < 29 | None |
| 30 - 49 | Mild |
| 50 - 64 | Moderate |
| 65 - 79 | Marked |
| 80 - 94 | Severe |
| > 95 | Very severe |

Table 3.3 The score and level of perceived social support

| Score | Level of Perceived Social Support |
|---------|-----------------------------------|
| 12 – 35 | Low perceived support |
| 36 – 60 | Medium perceived support |
| 61 - 84 | High perceived support |

3.7 Data Collection Plan

3.7.1 The Procedure of Data Collection

Data for this study was collected after receiving ethical approval from the Human research Ethical Committee (HREC) and Dean of School of Health Sciences. After the permission to collect data from Universiti Sains Malaysia approved, the questionnaire was formatted into the google form. The online questionnaire distributed to the selected subjects in the form of Google link via WhatsApp messaging application. The dissemination of questionnaire and data collection through google form was chosen due to cost effectiveness. Participants got an explanation from the researchers about the purpose of the study and data collection method. To ensure that participants' rights were respected, it is essential to obtain informed consent using the research information that was included in the google form. Only the researcher and the supervisor have access to the information acquired.

3.7.2 Flow Chart of Data Collection

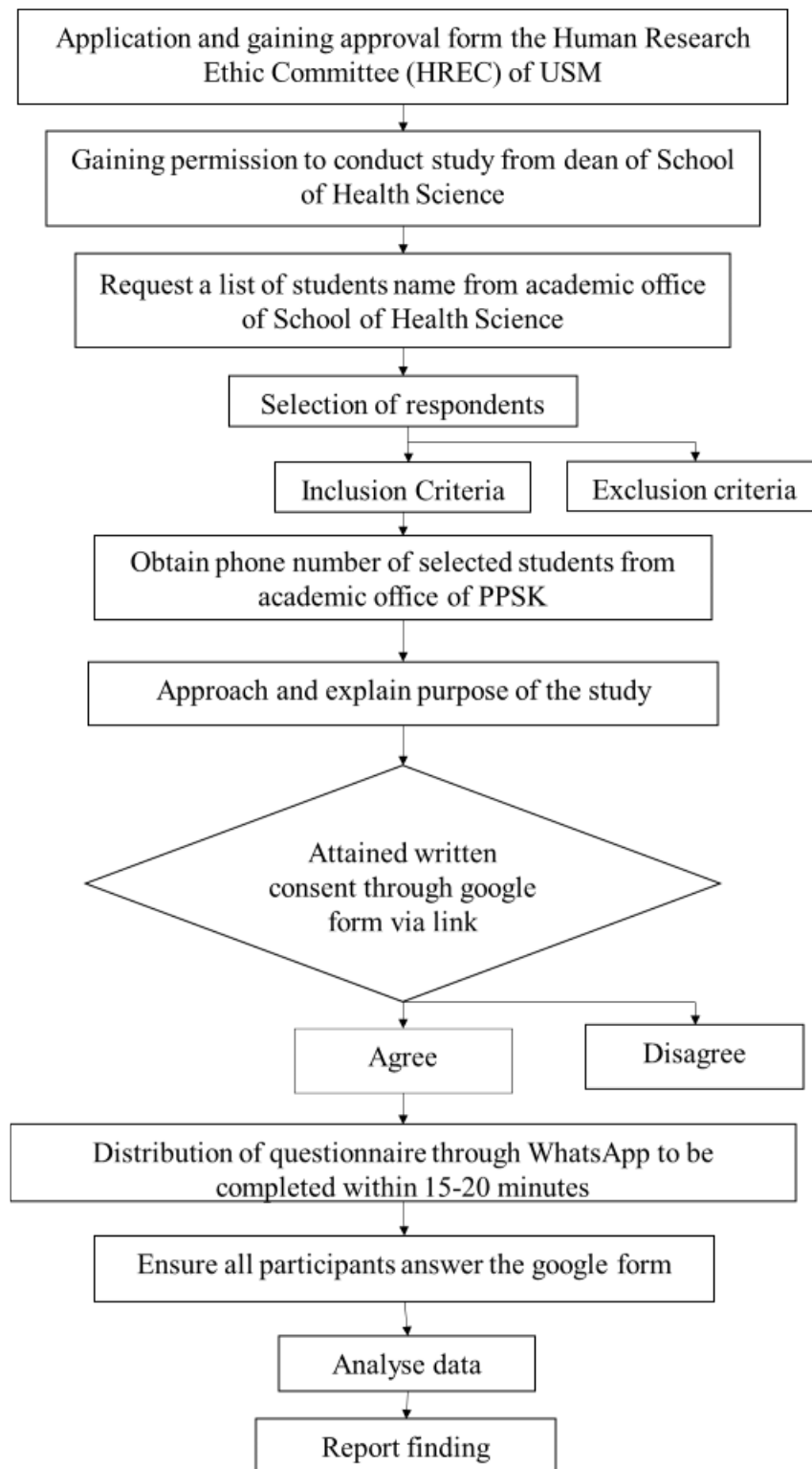


Figure 3. 1 Overall flow of the data collection process

3.8 Ethical Consideration

This study was carried out after gaining approval from the Human Research Ethics Committee (HREC), Universiti Sains Malaysia. The participant was explained on the risks, their right to voluntary participants, and the right decision making whether to be involved or not in this study without any pressure, compulsion and right to end the study at any time without having punishment.

The informed consent for this study was on the first page of the google form, and there was one question asking if the student agreed to participate in the study as a respondent or not. The student proceeds to Part A of the questions if they agree to participate as the study's respondent. On the other side, if the student chooses not to engage in the study, their information was added automatically to the declined to participate section.

The permission to use the original questionnaire of LSAS had been sent to the original author through email and has been approved. For MSPSS questionnaire, the author has granted permission to use the questionnaire (Appendix B).

According to the ethical principles outlined in human research, it protects the rights of study participants and respects their decision-making autonomy. Every participant was asked for their informed consent. Prior to the data collection, each participant was informed of the purpose of the study, its scope and the significance of their participation. Every participant was informed of their right to refuse or end the study at any time without getting punished, as well as their right to voluntary participation without any influence, force, or persuasion.

In this study, there was no conflict of interest as there was no payment to researchers in this company-driven study and absence from any influence that has potential to affect or compromise professional judgement in research.

Participants consent forms and data collected from the google form kept confidential in private where it will only be used for academic and research purposes. Only members of the research team have access to the data. Data was viewed as grouped data, so participants were not personally listed. Moreover, the subject's name does not appear in any documentation to keep anonymous.

This study does not involve any sensitive issues among communities. This study benefits communities by assessing social anxiety and determining the level of social support perceivability. The participants with score more than 50 in the LSAS which indicated having social anxiety were contacted and informed regarding the result. They are recommended to refer to the psychiatrist for further diagnosis and receive appropriate treatment. This also helps the management level to take further action and thus improve the information of the participants after this study.

The respondents were acknowledged for their participation in the study through verbalization of thank after the respondents completed the questionnaire as researcher is an undergraduate student and the study is self-funded, hence no honorarium was given.

3.9 Data Analysis

Data collection was analyzed using Statistical Package for Social Sciences Software (SPSS) version 27.0. The sociodemographic data was analyzed using descriptive statistics.