

### RELATIONSHIP BETWEEN PUBLIC MENTAL HEALTH STIGMA,

#### MENTAL HEALTH LITERACY, AND HELP-SEEKING BEHAVIOUR

#### AMONG ADULTS IN MALAYSIA

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#### Relationship Between Public Mental Health Stigma,

#### Mental Health Literacy, and Help-Seeking Behaviour

#### among Adults in Malaysia

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### **Approval Form**

| This research paper attached hereto, entitled "The Relationship Between Public Mental Health  |
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| Stigma, Mental Health Literacy, and Help-Seeking Behaviour among Adults in Malaysia"          |
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#### **Abstract**

In recent years following the post-COVID period, the number of individuals suffering from mental health issues continue to accumulate despite the notable increase in awareness regarding mental health. The often cause related to this issue of low levels in help-seeking behaviours would usually be the presence of stigma from the public with regards to mental health, and also mental health literacy (MHL). The present study examined the association linking the presence of public mental health stigma (PMHS) and mental health literacy (MHL) with help-seeking behaviours among adults in Malaysia. Correlational cross-sectional research design was utilised in this current research whereby self-reported data was collected among Malaysian adults. A final total of 179 samples ( $M_{age} = 28.28$ ,  $SD_{age} = 13.158$ ) was gathered by using purposive sampling method. The majority of the participants were females (72.6%). As for the ethnicity of the respondents, the majority were Chinese (97.2%), followed by Indians (1.7%), and others (1.1%). Results have indicated significant relationships between the two predictors, PMHS and MHL, and help-seeking behaviour with negative and positive correlation for each respectively. The current study is therefore helpful in attempts to fill the gap in literature available for the Malaysian context, where cultural and social factors are contemplated. Practical implications were also a result of the study, urging the government to act in accordance with the objectives in the implemented plans for mental health, and for relevant parties to heed to the efforts by the government. This can be done by educating themselves and others in order to minimize the stigma surrounding topics of mental health and help-seeking.

*Keywords:* public mental health stigma, mental health literacy, help-seeking behaviour, adults, Malaysia

#### **Declaration**

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

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### **List of Abbreviations**

#### Abbreviations

| 1.  | COVID   | Coronavirus Disease                                    |
|-----|---------|--|
| 2.  | GHSQ    | General Health Seeking Questionnaire                   |
| 3.  | HL      | Health Literacy  |
| 4.  | MAKS    | Mental Health Knowledge Schedule                       |
| 5.  | MHL     | Mental Health Literacy                                 |
| 6.  | MHS     | Mental Health Stigma                                   |
| 7.  | NHMS    | National Health and Morbidity Survey                   |
| 8.  | PMHS    | Public Mental Health Stigma                            |
| 9.  | SF-CAMI | Short Form Community Attitudes toward Mentally Illness |
| 10. | SPSS    | Statistical Package for Social Sciences                |
| 11. | TPB     | Theory of Planned Behaviour                            |
| 12. | UTAR    | Universiti Tunku Abdul Rahman                          |

#### Chapter I

#### Introduction

#### **Background of Study**

Due to this post-COVID period, the public needs to adjust and adapt from the online world to the physical world. Malaysian adults are suffering from several mental health issues, such as depression. It can be proven that in the National Health and Morbidity Survey (NHMS) conducted in 2015, 29% of Malaysian adults reported having a mental health disorder; in the NHMS done in 2019, 2.3% of Malaysian adults reported having depression (Institute for Public Health, 2019). Besides, as stated by Berry et al. (2020), participants in the study expressed that it is not appropriate for individuals in Malaysian society to disclose mental health issues because the prevailing discourse associates with mental health issues with weakness. They are unlikely to ask friends, family, co-workers, counsellors, or therapists for assistance when they are stressed out or having issues. Therefore, the current study seeks to investigate possible factors that impact help-seeking behaviours in Malaysian adults.

A number of studies have found that stigma is one of the causes individuals refuse or delay seeking help. According to Evans et al. (2023), mental health stigma (MHS) might cause some negative effects, such as delay in therapy and early treatment discontinuation. Apart from that, based on Ibrahim et al. (2019), stigma regarding asking for assistance prevents someone from receiving the treatment they need for their issue. Based on Vijaindren (2019), respondents in Malaysia expressed concern about discrimination against people who seek help due to mental health issues and the stigma associated with it. According to the research, 67% of those impacted are too ashamed to ask for assistance, and 52% of respondents are extremely worried about adverse reactions and stigma from friends and family (Vijaindren, 2019).

Furthermore, mental health literacy (MHL) might act as a possible factor that has an impact on help-seeking behaviour. This is because a lack of mental health knowledge towards mental health illnesses may lead individuals to misinterpret their experience or underestimate the seriousness of their condition. Young people tend to seek psychological help slightly more often than adults, although there is a greater likelihood of mental health problems among them (Jorm et al., 1997). This could be because young people have a greater awareness and understanding of mental health, which leads to a higher acceptance of mental health problems. According to Almanasef's (2021) study, those who possessed greater knowledge about mental health were inclined to look for assistance whenever they faced mental health problems. However, there is still a lack of studies that explore Malaysian adults' level of MHL and their help-seeking behaviours.

Although Malaysia has made significant progress in recent years in improving its policies and systems for mental health care, the public still lacks understanding and acceptance of mental health issues (Parameshvara Deva, 2004). Hence, it is crucial to conduct this study to explore public mental health stigma (PMHS) and mental health literacy (MHL) as aspects that impact the behaviour of seeking help in order to increase awareness and acceptance of mental health issues among Malaysians. In short, by investigating how PMHS and MHL have an association with subsequent help-seeking behaviours, future research can develop interventions to promote a more supportive and understanding environment towards mental health issues and encourage help-seeking behaviours.

#### **Problem Statement**

Over the past few years, Malaysia has made notable advances in its mental health care systems and policies, but there is inadequate awareness and acceptance of mental health issues

from the general public (Parameshvara Deva, 2004). In the study by Loo et al., (2012), a comparison of MHL levels was made among three countries; British, Hong Kong, and Malaysia. Comparing the three countries, Malaysia scored the poorest in terms of identifying mental health disorders, it was found that Malaysians had the tendency to misdiagnose depression disorders and instead defined the disorder as "exogenous", derived from personality and situational factors. The performance of Malaysians identifying disorder becomes an issue because the national prevalence of depression among Malaysian adults is 2.3% as of 2019 and this is equivalent to half a million people (Institute for Public Health, 2019).

Additionally, awareness of mental health issues is still inadequate among the general public, and this may be caused by a continual adherence to traditional cultural beliefs and practices (Loo et al., 2012). As such, according to Hofstede's Cultural Dimensions, Malaysia scored 27% under the individualism dimension (Country Comparison Tool, n.d.) which was the lowest compared to Singapore (60%), United Kingdom (76%), and United States (43%). With a score of 27%, this indicates that Malaysia is potentially a country that lives with a collectivist culture which may impact the outcome of individuals' help-seeking behaviours. This is because in a collectivist society, individuals are said to belong only when loyalty to the group is promised and therefore any offence committed by any member would lead to shame (Country Comparison Tool, n.d.). Apart from that, a traditionally collectivist culture often places emphasis on conscientiousness, leading to individuals being highly aware of how they are perceived (Berry et al., 2020). However, there has also been past research by Wei et al., (2023) whose results indicated that collectivism was not a significant predictor of help-seeking behaviours. Hence, this calls for further research on potential causes of low help-seeking behaviours and awareness of mental health.

In light of that, in a study by Ibrahim et al., (2019), results suggested that self-stigma was the most influential factor for help-seeking behaviours. However, PMHS, on the other hand, had inconsistent findings (Nearchou et al., 2018; Pattyn et al., 2014; Schnyder et al., 2017; Topkaya, 2014). How the public perceive and stigmatise mental illness and how individuals believe and perceive public stigma could be internalised and impact an individual's self-concept, then developing self-stigma (Corrigan & Watson, 2002). Therefore, it is vital for more studies to consider the correlation between PMHS and help-seeking behaviours.

Furthermore, despite the advances made in the mental health systems in Malaysia, the topic of MHL is a relatively new area in the progress of exploration in Malaysia and there has been a lack of research available to make an appropriate data comparison (Samar & Perveen, 2021). Subsequently, Brown et al., (2022) also highlighted that, low levels of help-seeking also result in poorer recruitment in research studies, causing these findings to lack external validity. Klik et al., (2019) mentioned that little attention has been given towards identifying factors related to stigma which are associated with help-seeking. As such, without sufficient data covering these areas as factors which contribute to mental health outcomes in the country, little to no comparison can be made and it may also lower the likelihood of these results being generalised.

Lastly, in relation to MHL, a study by Moss et al., (2021) highlighted that, where MHL could reduce mental health risks and increase help-seeking behaviours, future practitioners could consider including literacy as one of the early phases of intervention and prevention of mental health issues. Subsequently, Munawar et al., (2021) also mentioned that there were no studies on the efficacy of MHL as an intervention in Malaysia, thus indicating an absence of sufficient understanding of MHL in Malaysia. As such, it is clear that not many studies have been carried

out in the Asia region, especially in Malaysia. The results may be different as compared to other countries given the difference in values and cultures as mentioned above. Hence, this necessitates further the need for this study to be carried out.

#### **Research Questions**

- 1. Is there a relationship between mental health literacy and help-seeking behaviour among adults in Malaysia?
- 2. Is there a relationship between public mental health stigma and help-seeking behaviour among adults in Malaysia?

#### **Research Objectives**

- 1. To examine the relationship between mental health literacy and help-seeking behaviour among adults in Malaysia
- 2. To examine the relationship between public mental health stigma and help-seeking behaviour among adults in Malaysia

#### **Research Hypotheses**

- *H*<sub>i</sub>: Mental health literacy significantly correlates to help-seeking behaviour among adults in Malaysia
- *H*<sub>2</sub>: Public mental health stigma significantly correlates to help-seeking behaviour among adults in Malaysia
- $H_3$ : Mental health literacy and public mental health stigma significantly predicts help-seeking behaviour among adults in Malaysia.

#### **Significance of Study**

The findings are important as the current study aims to assess the relation MHL, PMHS, and help-seeking behaviour, where impacts of the former two variables on help-seeking

behaviour will be assessed. This study will also accommodate the existing knowledge regarding the level of MHL and the extent of PMHS among the public in Malaysia. As mental health issues are a health concern in the general public and recent statistics estimate about 10.7% of the global population struggle with a mental health issue (Adams et al., 2021), this necessitates the need for this study to be carried out. Researchers in the same study have also highlighted that many go undiagnosed and untreated because of a lack of knowledge with regards to mental health and a lack of help-seeking behaviours. Stigma is another factor that also influences help-seeking apart from knowledge. Understanding these influential factors is key to understanding and addressing mental health outcomes in Malaysia.

Hence, by knowing the estimate of MHL and PMHS among Malaysian adults and its relationship with help-seeking behaviour, this enables better interventions to be done as relevant authorities, including the government can make informed decisions about what is appropriate and necessary to aid in increasing literacy levels, reducing stigma, and making adjustments to existing policies to aid the public in seeking for mental health help. Lastly, when knowledge about mental health is labelled as a general knowledge, this removes the thought of this topic as a taboo among Malaysians, thus reducing stigma, and empowers individuals to seek for help where needed.

#### **Operational Definition**

#### Mental Health Literacy

Mental Health Literacy (MHL) will be measured by the Mental Health Knowledge Schedule (MAKS, developed by Evans-Lacko et al., 2010). The MAKS is utilised to assess mental health knowledge related to stigma among the public in general. It has 12 items with a 5-point Likert scale, from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), while "Don't know" was

coded with a neutral score of 3. To calculate the total score, the response values for each item will be summed up. Items 6, 8, and 12 were reverse coded and higher MAKS score indicated a higher level of MHL (Doumit et al., 2019).

#### Public Mental Health Stigma

Public Mental Health Stigma (PMHS) will be measured by the Short Form Community

Attitudes toward Mentally Illness (SF-CAMI) scale, the shortened version of Community

Attitudes toward the Mentally Ill (CAMI) scale. The original CAMI was developed by Taylor and Dear (1981) and was later shorten by Tong et al. (2020). The SF-CAMI utilised the response format of 5-point Likert scale from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). The scoring method of the SF-CAMI is by summing up all 20 items. A higher score reflected a higher stigma level towards mental illness. The highest total score would be 100.

#### General Help-Seeking Questionnaire

The General Health Seeking Questionnaire (GHSQ, developed by Wilson et al., (2005) will be utilised to estimate help-seeking behaviours. It has 10 items with a 7-point Likert scale from 1 (*Extremely Unlikely*) to 7 (*Extremely Likely*). The highest score will imply a more positive perception toward help-seeking behaviours.

#### **Conceptual Definition**

#### Mental Health Literacy

Mental health literacy refers to various aspects such as a general understanding of mental health and available treatments, an understanding of particular mental illnesses, the ability to identify symptoms, attitudes towards mental health treatment, and an understanding of ways to avoid mental health issues (Jorm, 2012).

According to Nohr et al. (2021), *public stigma* can be defined as the tendency of the community to generalise and link mental illness to negative labels, and these labels are typically followed by adverse feelings and actions toward affected individuals. *Perceived public stigma*, which is also under public stigma, is referring to an individual's perceptions of the negative labels, adverse feelings and actions displayed by the majority of society (Nearchou et al., 2018).

#### Help-Seeking Behaviour

Help-seeking is described as a person who is actively asking for help from other people (Gebreegziabher et al., 2019). This includes the behaviour of talking to someone about personal matters to get guidance and encouragement. In addition, the sources of help are divided into two categories: formal and informal. According to Gebreegziabher et al. (2019), formal help involves people with a professional degree in a related field, while informal help involves help from closest people such as parents or other members of the family.

#### Adults

In Malaysia, an *adult* is someone who is 18 years old and older (Statista Research Department, 2023). Individuals with the age of 18 years and older, which is the point at which a person is deemed legally independent and accountable for their actions, is one legal context in which this age is significant. They have a different level of personal identity, belief system, and knowledge level compared to individuals less than 18 years old.

#### **Chapter II**

#### **Literature Review**

#### Public Mental Health Stigma and Help-Seeking Behaviour

Help-seeking behaviours in Malaysia seem to continue remaining in low levels as it is often associated with weakness, leading individuals to avoid seeking help or disclosing their mental health issues (Berry et al., 2020). As such, mental health stigma (MHS) might cause negative effects such as delay in therapy and early treatment discontinuation (Evans et al., 2023).

A correlational study conducted by Topkaya (2014) involved 362 undergraduate students in Turkey to complete a set of questionnaires with one of the aims being to identify the relation between psychological help-seeking and public stigma. A significant negative weak relationship between public stigma associated with mental help-seeking and attitudes toward mental help-seeking was established. This signified that when the public stigma of mental help-seeking decreases, attitudes towards mental help-seeking increases. This study had also cited another two studies which also had an outcome of significant negative weak relationship between public stigma linked to mental help-seeking and attitudes toward mental help-seeking (Bicil, 2012, as cited in Topkaya, 2014; Topkaya, 2011, as cited in Topkaya, 2014).

Nearchou et al. (2018) had conducted a study in east Ireland with a total number of 722 secondary school students as participants. Although the purpose of the study was to point out the predictors of help-seeking intentions for self-harm and depression/anxiety symptoms in adolescents, association of public stigma and the help-seeking intentions were also being mentioned. The result showed that perceived public stigma had a significant negative relationship with both help-seeking of self-harm and depression/anxiety. This indicated that

when perceived public stigma is high, the help-seeking for either self-harm or depression/anxiety is low. However, further justifications were not made.

Another study on Belgium's adult population done by Pattyn et al. (2014) has also highlighted perceived public stigma. This study aimed to examine whether there is a negative relationship between help-seeking behaviour and stigma, and at the same time also look into the impact of public stigma with different formal and informal help. Out of a total number of 728 Belgium adults aged from 18 to 94, 49% of the respondents (N=357) had agreed that the mindset of the public is that mental help-seeking is considered personal failure, which indicated a high perceived public stigma. There was no significant effect done by perceived public stigma towards formal help. However, a negative relationship was found between perceived public stigma and rating of importance of informal help (from friends and family). This result was further justified by the researcher that the perceived public stigma, that has triggered the fear of expected devaluation and discrimination from the public, might lead to the overlook of an important coping strategy – informal help.

However, inconsistency of result could be found in another study of meta-analysis done by Schnyder et al. (2017). The purpose of conducting the study was to assess the effect of four types of stigmas, where perceived public stigma was one of them, on help-seeking behaviour in the general population. The 27 studies included in this meta-analysis involved 31,677 participants with ages of 15 years and above. All studies were in Western context except for one from Singapore. Although mental-illness-related or mental-health-services-related stigma was directly correlated with lesser help-seeking behaviour generally, the strength of relationship was based on the type of stigma. In this study, perceived public stigma had shown no relationship with help-seeking behaviour. Instead of showing significant relationships, this study showed

more on perceived public stigma as a predictor of lesser help-seeking behaviour. Therefore, in this study, we would like to assess the relationship between help-seeking behaviours and PMHS in the Malaysian context.

#### Mental Health Literacy and Help-Seeking Behaviour

As for MHL, despite the significant progress seen in policies and systems for mental health care, the public still lacks understanding and acceptance of mental health issues (Parameshvara Deva, 2004).

As such, researchers also evaluated the association between MHL and help-seeking behaviour. It was understood that attitudes and keenness to participate in help-seeking behaviour in young people could be influenced by increasing MHL, confronting beliefs and perspectives, providing precise information and relevant resources (Ratnayake & Hyde, 2019). The study by Ratnayake and Hyde (2019) aimed to look into the association between MHL, help-seeking intentions and well-being in high school seniors in the south-east of Melbourne, Australia. The sample included 22 females, 10 male students, aged 16-18 years old. It should also be noted that if symptoms of mental health issues fail to be recognised, this could lead to a delay in help-seeking. However, contrary to other research that indicated increased levels of MHL to result in increased intentions and attitudes toward help-seeking (Hart et al., 2018; Lubman et al., 2016), the results in this study did not suggest a relationship between MHL levels and help-seeking intentions.

Almanasef (2021) carried out a cross-sectional study which included 271 pharmacy students from King Khalid University, Saudi Arabia completed an online self-administered questionnaire. The objective of carrying out the study was to assess the extent of knowledge in mental health among undergraduate pharmacy students and to evaluate if MHL increases help-

seeking intentions. The results found a significant positive relationship linking MHL and help-seeking behaviours, indicating that students who scored higher in their MHL were highly likely to seek aid upon encountering mental health issues.

Subsequently, a study by Moss et al. (2021) sought to examine the potential association between MHL with outcomes such as help-seeking behaviours. The main target group for the study was 241 postgraduate students from two universities in England to which the researchers also aimed to make a comparison with undergraduate students. The results highlighted that a higher score on MHL would lead to an increased score for help-seeking behaviour. Past studies mentioned in this study also indicated that help-seeking behaviours can be improved through recognition of mental health symptoms (Altweck et al., 2015) which can be increased through MHL, and if stigmatising beliefs and attitudes were reduced (Kitchener & Jorm, 2004). The study also highlighted that MHL could be included as part of interventions and prevention programmes if it could decrease risk factors that came with psychological health and encourage help-seeking behaviours. Therefore, we would like to assess the relationship between MHL and help-seeking behaviours in the Malaysian context.

An interesting find in the Malaysian context would be a qualitative study carried out by Berry et al., (2020) where a semi-structured interview was conducted. The study was conducted with the objective to examine the attitude of young people in Malaysia with regard to mental health issues, help-seeking, and mental health treatments. There were nine participants, aged between 16-23 years and came from a low-income background. The results of the study support previous suggestions of inadequate MHL among Malaysians (Furnham & Hamid, 2014) where the results suggest that individuals without prior history of mental health issues may have limited

knowledge towards mental health issues. However, it is worth noting that barriers to helpseeking behaviours and disclosure of mental health issues could stem from societal stigma.

#### **Theoretical Framework**

#### Mental Health Literacy Theory

The relationship between Mental Health Literacy (MHL) and Help-Seeking Behaviour can be explained by Mental Health Literacy Theory. Jorm et al. (1997) first proposed the concept of Mental Health Literacy (MHL) as an extension of the term Health Literacy (HL).

From the Mental Health Literacy Theory, MHL and assistance-seeking behaviour are highly related to each. This is because according to Jorm et al. (1997), early detection and suitable interference in mental illnesses would be more likely in individuals with a high level of MHL. Moreover, Caldwell et al. (2000) stated that both nurses and psychiatrists have been found to have higher MHL compared to lay people. This is consistent with the mental health literacy theory that enhanced understanding and positive attitudes contribute to improved MHL.

Jorm et al. (1997) found that although the person in the schizophrenia vignette perceived psychiatrists and psychologists as somewhat helpful, these professionals were less likely to be evaluated as beneficial than counsellors or general physicians. Hence, this indicates that the public's perception of mental health specialists needs to be altered. Besides, when the public has low knowledge and have different attitudes towards different mental disorders, it will affect their help-seeking behaviour either seeking formal help or informal help. This can be proven by the research done by Jorm et al. (1997), many members of the public hold opinions that differ from those who are medical specialists or experts. As a result, these differences may cause people to disregard advice from professionals in mental health or refuse to accept their help.

#### Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB), developed by Icek Ajzen, provides a clarification for the relationship between help-seeking behaviour and mental health stigma (MHS). Theory of Planned Behaviour was created as an attempt to predict human behaviour (Ajzen, 1991). According to Zorrilla et al. (2019), TPB has been mentioned in past studies on the application of services for mental health and help-seeking. The TPB states that behavioural achievement can be directly predicted by behavioural intention and perceived behavioural control (Azjen, 1991). Hence, the behaviour that can be successfully carried out must result from individuals' strong intention to perform the behaviour and also to their confidence in carrying out the action.

Furthermore, MHS will cause individuals to delay therapy or treatment and to discontinue treatment early. When there are negative attitudes toward getting help for mental health problems, there will be a decrease in behaviours related to seeking help. Thus, since mental health is stigmatised, people who suffer from mental illnesses may give up getting help out of fear of being called mentally ill and having to deal with prejudice or disapproval from other people (Kulesza et al., 2015).

Lastly, the TPB may additionally elaborate on how stigma might result in fewer behaviours related to seeking help and support. According to the TPB, a person's intentions, attitudes, perceptions of social norms, and sense of control over a behaviour all have an impact on their behaviour (Ajzen, 1991). People would therefore be less likely to seek help if they think that there are unfavourable social norms associated with mental illness and also seek help (Chandrasekara, 2016). As a result, these perceived social norms may also have an effect on

people's attitudes and intentions regarding seeking assistance, which may have a further influence on help-seeking behaviour.

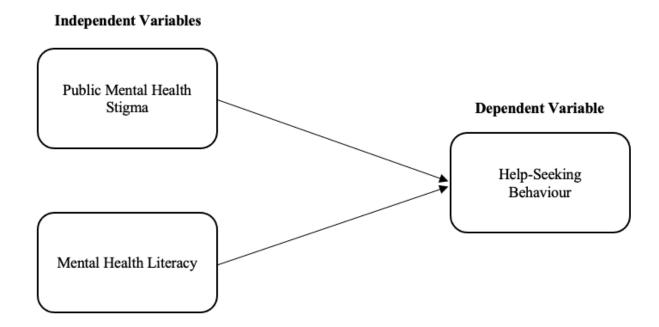
#### **Conceptual Framework**

The present study focused on the relationship between PMHS, MHL, and help-seeking behaviour among adults in Malaysia. The independent variables for this study are public mental health stigma (PMHS) and mental health literacy (MHL) while the outcome variable is help-seeking behaviour.

Figure 1

Conceptual Framework of The Relationship Between Public Mental Health Stigma, Mental

Health Literacy, and Help-Seeking Behaviour Among Adults in Malaysia



#### **Chapter III**

#### Methodology

#### **Research Design**

This research has adopted a quantitative, cross-sectional design in examining the association between PMHS, MHL, and help-seeking behaviours among adults in Malaysia. According to Aggarwal & Ranganathan (2019), a quantitative study is designed to elaborate on the organization of one or more variables without reference to any causal or additional hypotheses. This design was also selected as quantitative studies on informal hypotheses aid in generating empirical evidence that support the efficacy of diverse solutions, which can be taken into consideration and maintains objectivity (Fryer et al., 2018).

Cross-sectional studies on the other hand, can be classified as a form of observational research (Setia, 2016). Researchers would measure both the study's outcome in a particular population and the participants' exposure concurrently. Subsequently, these studies are often conducted in a relatively shorter time and are inexpensive (Aggarwal & Ranganathan, 2019; Setia, 2016; Wang & Cheng, 2020).

#### **Research Methods**

#### Sampling Method

A purposive sampling method was employed for the current study in which participants were intentionally filtered as per the inclusion and exclusion criteria (Andrade, 2020). The sampling method, which was under the non-probability and non-random sampling approach, was utilised as it was not possible to gain access to and also to randomly include the whole population of adults in Malaysia. Therefore, individuals were chosen in light of the inclusion and

exclusion criteria as it was more feasible and appropriate to meet the research objective.

Malaysian adults were selected as the target respondents. Additionally, one of the inclusion criteria were Malaysian adults and must be aged 18 years old and above. On the other hand, individuals who were below 18 years old, non-Malaysian, had a history of or were currently diagnosed with mental illness and/or mental health professionals were excluded from this study.

#### Inclusion and Exclusion Criteria

The data of individuals who met the criteria set were collected. The inclusion criteria of this study were Malaysian adults who are aged 18 and above and have no history of or are currently diagnosed with mental illness. As for the exclusion criteria, individuals below the age of 18, non-Malaysian citizens, individuals with a history or have been diagnosed with mental illness within the last 12 months, and individuals who are mental health professionals. Both inclusion and exclusion criteria were included at the beginning of the online survey where participants who met the exclusion criteria will be directed to the end of the survey instantly.

#### Research Location

The current research concentrated on the Malaysian population. The research survey was created and disseminated digitally using Qualtrics, a digital survey platform. Subsequently, it was spread via a variety of social media sites, including Instagram, WhatsApp, and Messenger. With the intention to enhance the accessibility of the survey, an innovative approach by distributing QR codes or URLs was done through various platforms. The reason social media platforms were selected as one of the primary methods for attracting respondents was because, according to Howe (2023), 78.5% of Malaysians, or roughly 26.8 million users, use social media. Besides, Gen Z and Millennials make up nearly all of the social media use, with 99.8% of users above 18 years old active on social media (Howe, 2023). This multifaceted distribution strategy

ensured that targeted respondents encountered the questionnaire through diverse points of contact, increasing the likelihood of engagement.

#### Ethical Clearance

Prior to the administration of the pilot study, a number of ethical concerns are in order. Firstly, the submission of finalized survey to the UTAR Scientific and Ethical Review Committee (SERC) was carried out for the reviewing process. It was to guarantee that the researchers preserve ethical quality for the duration of the study, and to ensure that respondents were informed and consented prior to partaking this survey. Ethical approval from SERC to conduct the study had been successfully obtained (U/SERC/326/2023).

#### Sample Size

G\*Power software version 3.1.9.4 was used to determine the sample size. It is known as a common power measurement software utilised in most research projects. The estimated total sample size was measured according to a few input parameters, that is, the effect size, type of statistical analysis, and the level of significance. The effect size conventions suggested by Cohen ranged from .02 (small effect size), 0.15 (medium effect size), and .35 (large effect size) (Park et al., 2023).

The average effect size of this study was calculated by obtaining the correlation coefficients of the relationship between help-seeking behaviour with each of the variables from past studies. The correlation coefficients obtained were -.217 for public stigma and .48 for mental health literacy. The total effect size for this study was then calculated using the formula as proposed by Faul et al. (2007),  $\frac{R^2}{1-R^2}$ . The final total effect size obtained was .175 (large effect size), which was then entered into the G\*Power software, including .05 for probability alpha

error (err prob), .95 for the statistical power level (1- err prob) and 2 for the number of predictors. The .95 for statistical power level, or confidence interval was adopted in this study as the ideal power generally accepted was .80 or above (Serdar et al., 2021). With the previously mentioned values, the sample size calculated with the G\*Power software resulted in a minimum of 92 participants for the current study (see Appendix A) with Malaysian adults as the target sample. There was a total of 347 responses. Nevertheless, 168 responses had been removed after data cleaning due to various reasons (e.g. incomplete responses, dropped out from the study, did not fulfil the inclusion criteria). Furthermore, one outlier was identified and had been removed during data cleaning, making a valid data count of 179.

#### **Data Collection Procedures**

The dissemination of the survey was done through online platforms such as Microsoft Teams, WhatsApp, Instagram, Messenger, etc. via a Qualtrics hyperlink or Quick Response code. Every participant encountered an informed consent as their first segment of the survey and only participants who conceded to the informed consent will proceed to the next section where a handful of questions for screening purposes (e.g. demographics, main inclusion criteria) were included to make sure individuals were fit to partake in the current research. Individuals were only allowed to proceed with the rest of the questionnaire if they had fulfilled all the criteria included in the screening phase. Once the total amount of response has slightly exceeded the targeted number of about 300 participants, the questionnaire will be closed. Next, a comprehensive data cleaning process will be carried out to exclude participants who fail to meet the inclusion criteria or submit incomplete responses. The cleaned final data will be analysed using the SPSS software.

**Instruments** 

#### Mental Health Knowledge Schedule (MAKS)

Mental Health Knowledge Schedule (MAKS) was chosen to evaluate the mental health knowledge related to stigma among the study's population. MAKS is a 5-point Likert scale with 12 items in which 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree", while there is a sixth option of "Don't know" which will be coded with a neutral score of 3. The scoring method of the MAKS is by adding up the value of each response item selected where items 6, 8, and 12 are reverse-coded. High MAKS score will indicate high level of mental health knowledge (Doumit et al., 2019). Examples of questions asked in the MAKS include "If a friend had a mental health problem, I know what advice to give them to get professional help". An acceptable test-retest reliability of .71 was found when measured according to Lin's concordance statistic and an overall internal consistency among items 1 to 6 of Cronbach's α of .65 (Evans-Lacko et al., 2010). A systematic review carried out on the psychometric properties of MAKS found an ideal content validity and acceptable reliability value (Wei et al., 2016).

#### Short Form Community Attitudes toward Mentally Illness (SF-CAMI)

The Short Form Community Attitudes toward Mentally Illness (SF-CAMI) scale, the shortened version of Community Attitudes toward the Mentally Ill (CAMI) scale. The original CAMI was developed by Taylor and Dear (1981) and was later shorten by Tong et al. (2020). It is a measurement about the community attitudes specifically on the presence of stigmatization concerning individuals with mental illness.

SF-CAMI utilised the response format of 5-point Likert scale, whereby 1 indicated Strongly Agree until 5 represented Strongly Disagree, for participants to rate for their opinion

(see Appendix B). The scoring method of the SF-CAMI is by summing up all 20 items. A higher score reflected a higher stigma level towards mental illness. The maximum score would be 100.

Tong et al. (2020) have tested SF-CAMI and found a good internal consistency which is Cronbach's  $\alpha$  of .85. On the other hand, a test-retest reliability also obtained an acceptable result with the intraclass correlation coefficient being .62. SF-CAMI was also supported with strong convergent validity which can be seen from the construct reliability of .70 and above for all three subscales (Tong et al., 2020).

#### General Help-Seeking Questionnaire (GHSQ)

General Help-Seeking Questionnaire (GHSQ) was established by Wilson et al. (2005) to estimate help-seeking behaviours. GHSQ has 10 items with a 7-point Likert scale from 1 (*Extremely Unlikely*) to 7 (*Extremely Likely*). Examples of questions asked in the GHSQ include "If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?". The options available for individuals in terms of informal help were intimate partner, friend, parent, and formal help, mental health professional (e.g., psychologists, counsellor), doctor/GP, or religious leader. Besides, there is one reverse-scored item in GHSQ, which is Item 9. The Item 10, "I would seek help from another not listed above," means the respondents may choose to write down to whom and how they will seek help if the choice is not listed. The scoring method for GHSQ is based on summing up all 10 items. Respondents could score the lowest score of 9, and highest of 70. High scores implied high help-seeking intentions (Wilson et al., 2005).

According to Samar & Perveen (2021), GHSQ showed acceptable internal consistency (Cronbach's alpha =.70) and high test-retest reliability over a course of 3 weeks (r =.86). Predictive validity was also found looking at the significant associations linking intentions to

seek help and actual help-seeking behaviour from the relevant source during the next three weeks (Samar, 2020; Wilson et al., 2005). Besides, GHSQ was well-validated as it has been adopted by various studies conducted among different samples and in different research settings in Malaysia (Ibrahim et al., 2019; Samar, 2020; Samar & Perveen, 2021).

#### **Pilot study**

Pilot studies are typically carried out in the early stages of research protocol, usually pertaining to a scaled-down assessment that assists in the organization and refinement of the main study, as well as having the aim of attaining better results (In, J, 2017). According to Julious (2005), a sample size of 12 participants was found to be sufficient for a pilot study. As such, a pilot test with 17 participants that met the inclusion criteria was administered via an online questionnaire and disseminated to Malaysian adults via Qualtrics prior to advancing to the final study. Data gathered underwent analysis in order to examine the reliability of each instrument utilised to assess each variable. Tests for reliability of Mental Health Knowledge Schedule (MAKS), Short Form Community Attitudes toward Mentally Illness (SF-CAMI), and General Help-Seeking Questionnaire (GHSQ) were .589, .789, .696, respectively.

#### **Data Analysis**

The 23<sup>rd</sup> version of the Statistical Package for Social Sciences (SPSS) was utilised to analyse the collected data. Descriptive analysis was then used to examine demographic information such as age, sex, race, level of education and history of mental illness.

The relationship between PMHS, MHL, and help-seeking behaviours was assessed by executing the Pearson Product Moment Correlation (PPMC). PPMC exhibits the direction, and strength of the linear relationship between variables (Sekaran & Bougie, 2010; Walk & Rupp,

2010). A stronger association between variables are reflected in a correlation coefficient, r that is closer to  $\pm 1$  (Shevlyakov & Oja, 2016).

Multiple Linear Regression (MLR) was utilised to assess if PMHS and MHL predicted the help-seeking behaviour of adults in Malaysia. This has its relevance as MLR is regarded as appropriate in examining the variance of DV when greater than one predictor is present (Cohen et al., 2003). Nevertheless, assumptions of normality and MLR were carried out in advance. Assumptions of normality were conducted using the following: Skewness, Kurtosis, histogram, Q-Q plots, and Kolmogorov-Smirnov test.

To check the absence of outliers, the Mahalanobis distance, Cook's distance, and Centered Leverage tests were conducted. Mahalanobis distance is typically employed to look for influential cases (Leys et al., 2018). A threshold of 15 was used to identify possible outliers in Mahalanobis in sample sizes greater than 100. Cook's distance assesses each influential case on the approximate coefficients in a linear regression analysis (Cook, 1977). The threshold to be ruled as an outlier was values > 1 (Cook & Weisberg, 1982). Centered Leverage or hat values are the influence of observed values of the dependent variable over the predictor. This value is calculated as such: (p+1)/n whereby p indicates the number of predictors. Three times of the hat value calculated is employed as the threshold to determine outliers (Stevens & Stevens, 2001).

The assumptions of MLR involved independent errors, multicollinearity, homoscedasticity, normality of residual, and linearity of residual. Independence of errors follows the premise that errors are unrelated to the observed values and are typically analysed with Durbin-Watson. Values closer to 2 indicated independence of errors (Reddy & Sarma, 2015). Multicollinearity indicated problems with significant correlation found between the variables examined using tolerance and Variance Inflation Factors (VIF). Multicollinearity would be

proven where VIF values were not within the range of 5 to 10 and tolerance values lower than 0.1 to 0.2 and would therefore give rise to a problem in the study (Kim, 2019). Lastly, homoscedasticity reckons that residuals at every level of predictor should have equal variance while normality of residuals are defined by the standard distribution of errors. Linearity of residual is exhibited by a linear pattern in the scatter plot. A scatter plot was employed to examine assumptions of homoscedasticity, normality of residuals, and linearity of residuals.

#### **Chapter IV**

#### Results

#### **Data Cleaning**

A total of 347 responses were collected, and 168 responses had been removed after data cleaning. Among the 168 removed responses, there were 62 respondents not meeting the inclusion criteria, 51 incomplete responses, 37 missing data were identified, and 17 respondents disagreed with the participation of this study. Furthermore, one outlier was identified and removed. Data analysis was carried out again after the removal of the outlier. As such, the final sample size included in this study is 179.

#### **Demographic Statistics**

#### Demographic Information

Among the participants, the age range fell between 19 to 70 (M = 28.28, SD = 13.158). Most of the participants were at the age of 22 (38.5%, n = 69). In terms of gender, among the 179 participants, 49 (27.4%) were males and 130 (72.6%) were females. Furthermore, a majority of the participants were Chinese (97.2%, n = 174), then Indians (1.7%, n = 3) and other races (1.1%, n = 2). On the other hand, as illustrated in Table 1 below, most of the respondents (88.8%, n = 159) had tertiary education, and 11.2% (n = 20) had secondary education.

**Table 1**Demographic Information of Participants (N = 179)

|           | n   | %    | M     | SD     | Min | Max |
|-----------|-----|------|-------|--------|-----|-----|
| Age       |     |      | 28.28 | 13.158 | 19  | 70  |
| Gender    |     |      |       |        |     |     |
| Male      | 49  | 27.4 |       |        |     |     |
| Female    | 130 | 72.6 |       |        |     |     |
| Ethnicity |     |      |       |        |     |     |
| Chinese   | 174 | 97.2 |       |        |     |     |
| Indian    | 3   | 1.7  |       |        |     |     |

| 9221111 ( 0 2 2 1 1 1 1 1 0 0 1 1 |     |      |
|-----------------------------------|-----|------|
| Other                             | 2   | 1.1  |
| Education Level                   |     |      |
| Secondary education               | 20  | 11.2 |
| Tertiary education                | 159 | 88.8 |

Note. n: Number of respondents; %: Percentage; M: Mean; SD: Standard deviation; Min:

Minimum; Max: Maximum

#### Frequency Distribution of the Variables

Table 2 exhibits frequency distribution of all independent and dependent variables involved in the present study, including PMHS, MHL, and help-seeking behaviour. The mean and standard deviation of PMHS (M = 56.27, SD = 9.205) were reported, with the lowest score of 20 and highest score of 72. Followed by MHL (M = 44.21, SD = 4.603), with the lowest score of 31 and highest score of 56. Followed by the dependent variable, namely help-seeking behaviour (M = 44.15, SD = 8.646), with the lowest score of 21 and highest score of 70. As the scales were measured in a continuous manner, the mean was utilised as the threshold to divide the scores into below-mean and above-mean categories. Participants who scored above the mean are classified into the higher-level category of help-seeking behaviour, indicating a greater propensity to seek help. Conversely, participants who scored below the mean are categorized in the lower-level category, suggesting a lower intention towards help-seeking behaviour.

**Table 2** Frequency Distribution of Variables (N = 179)

| Variables                   | M     | SD    | Min | Max |
|-----------------------------|-------|-------|-----|-----|
| Public Mental Health Stigma | 56.27 | 9.205 | 20  | 72  |
| Mental Health Literacy      | 44.21 | 4.603 | 31  | 56  |
| Help-Seeking Behaviour      | 44.15 | 8.646 | 21  | 70  |

Note. M: Mean; SD: Standard deviation; Min: Minimum; Max: Maximum

#### **Normality Assumptions**

#### Skewness and Kurtosis Tests

Kurtosis and Skewness test were used to examine normality of each variable. An acceptable range for skewness and kurtosis value proposed by Gravetter et al., (2021) was between -2 to +2 in which George and Mallery (2010) proposed the same values. Table 3 displays all three variables meeting the kurtosis and skewness requirements.

**Table 3** *Skewness and kurtosis* 

| Variables                   | Skewness | Kurtosis |
|-----------------------------|----------|----------|
| Public Mental Health Stigma | -1.374   | 2.282    |
| Mental Health Literacy      | 135      | 007      |
| Help-Seeking Behaviour      | .198     | .211     |

#### Histogram and Q-Q plots

Histograms were also employed to check for normality (see Appendix C1). Histograms of all three variables displayed a bell-shaped curve, which indicated that the data was normally distributed. As for Q-Q plots (see Appendix C2), values of each variable could be observed to lie closely along the diagonal line except for SF-CAMI which had observed values that seemed to deviate from the diagonal line which demonstrated that the normality assumption was violated.

#### Kolmogorov-Smirnov (K-S) Test

In regard to K-S tests, Ghasemi and Zahediasl (2012) highlighted that in the case where results were insignificant with p-value above .05, the distribution is considered normal. Table 4 demonstrates that none of the variables fulfilled the assumptions for normality as the values were significant with p-value below .05 except for GHSQ which had a p-value above .05.

Nevertheless, Oztuna et al., (2006) highlighted a limitation of the K-S test which was its

sensitivity in which the existence of a minor divergence from normality could potentially lead to notable outcomes, despite the parametric results being unaffected by the small deviation.

 Table 4

 Kolmogorov-Smirnov Normality Test

| Variables —                 | ]         | Kolmogorov-Smirno | v <sup>a</sup> |
|-----------------------------|-----------|-------------------|----------------|
| v arrables —                | Statistic | df                | Sig.           |
| Public Mental Health Stigma | .177      | 179               | .000           |
| Mental Health Literacy      | .084      | 179               | .004           |
| Help-Seeking Behaviour      | .065      | 179               | .064           |

Note

#### a. Lilliefors Significance Correction

#### Conclusion for Assumptions of Normality

With reference to the aforementioned tests, all variables in this study did satisfy the normality indicators, with MAKS satisfying four out of five assumptions and SF-CAMI satisfying three of five assumptions. As such, all variables met the assumptions of normality, and a normal distribution has been achieved.

#### **Multi-Linear Regression Assumption**

#### **Multicollinearity**

According to Kim (2019), the presence of multicollinearity can be showed by a Variance Inflation Factor (VIF) greater than 5 to 10, and a tolerance lower than 0.1 to 0.2. According to Table 5, the values of VIF and Tolerance were reported to be 1.010 and 0.990 respectively. Hence, the values of VIF and tolerance show no violation in the assumption of multicollinearity in this study.

 Table 5

 Coefficients among Variables

|       | Collinearity Statistics |     |  |
|-------|-------------------------|-----|--|
| Model | Tolerance               | VIF |  |

| 1 | Mental Health Literacy      | .990 | 1.010 |
|---|-----------------------------|------|-------|
|   | Public Mental Health Stigma | .990 | 1.010 |

*Note.* VIF=Variance Inflation Factor

#### Independence of Errors

In order to guarantee that residuals were independent from each other, the Durbin-Watson test was carried out. Field (2017) suggested that Durbin-Watson values which are outside of the range between one to three are considered to be violating this assumption.

According to Table 6, the value of 2.050 reveals that the assumption has been met and errors are independent of each other.

**Table 6** *Model Summary*<sup>b</sup>

|       |       |          | Adjusted R | Std. Error of |                      |
|-------|-------|----------|------------|---------------|----------------------|
| Model | R     | R Square | Square     | the Estimate  | <b>Durbin-Watson</b> |
| 1     | .336ª | .113     | .103       | 8.190         | 2.050                |

a. Predictors: (Constant), Mental Health Literacy, Public Mental Health Stigma

b. Dependent Variable: Help-Seeking Behaviour

#### Multivariate Outliers

A casewise analysis was carried out to detect multivariate outliers in the dataset comprising 179 cases. As being mentioned in the "Missing Data and Data Cleaning" section, during the first round of data analysis, an outlier has been detected and removed due to the violation of Centered Leverage value. Thus, this casewise analysis were being conducted again with the final sample size of 179 (see Appendix C4). Table 7 presents the eleven multivariate outliers that were being detected, which are 3, 4, 5, 32, 40, 58, 82, 91, 115, 169 and 176 (see Appendix C3). To identify whether or not these cases are influential, the tests mentioned in the subsequent writing were computed on each possible outlier. According to Barnett and Lewis (1994), Mahalanobis distance can be used to identify potential outliers when the value is lower

than 15. As all potential outliers resulted in values lesser than 15, this indicates no influential cases in the sample data.

According to Cook and Weisberg (1982), outliers can be determined when the Cook's distance value of the case is more than one. The values of all 10 cases are not greater than one, hence, there was no violation of Cook's distance.

The formula of (p+1)/n was utilised to compute the Centered Leverage distance, in which p represents number of predictors and n, the cumulative sample. Stevens & Stevens (2001) highlighted that values exceeding two times from the calculated Leverage's values would be considered as outliers. Applying the formula, the computed value is .01676, and subsequently multiplied by two, resulting in the value of .03. Based on Appendix C4, all ten cases, except for case 176, are smaller than the two times Leverage's value. However, the two times Leverage is considered to be a more stringent threshold for outliers. Ellis and Morgenthaler (1992) proposed that influential cases exhibiting values three times surpassing the computed Leverage's value would be considered outliers. Therefore, with a multiple of three, a more lenient threshold would be .05. As the Leverage's value of all cases are lower than .05, no violation of the Centered Leverage distance was found. Thus, all the eleven cases can be retained.

**Table 7**Casewise Diagnostics for Help-seeking Behaviour

|             |               | Help-seeking |                 |          |
|-------------|---------------|--------------|-----------------|----------|
| Case Number | Std. Residual | Behaviour    | Predicted Value | Residual |
| 3           | -2.429        | 26           | 45.90           | -19.897  |
| 4           | 2.060         | 57           | 40.13           | 16.874   |
| 5           | -2.034        | 28           | 44.66           | -16.660  |
| 32          | 2.480         | 66           | 45.69           | 20.311   |
| 40          | -3.379        | 21           | 48.67           | -27.672  |
| 58          | 2.275         | 62           | 43.37           | 18.630   |
| 82          | 2.143         | 60           | 42.45           | 17.555   |
| 91          | 2.074         | 62           | 45.01           | 16.989   |

| PUBLIC MENTAL HEALTH STIGMA, | MENTAL HEALTH LITERACY, & HELP- |
|------------------------------|---------------------------------|
| SEEKING REHAVIOUR            |                                 |

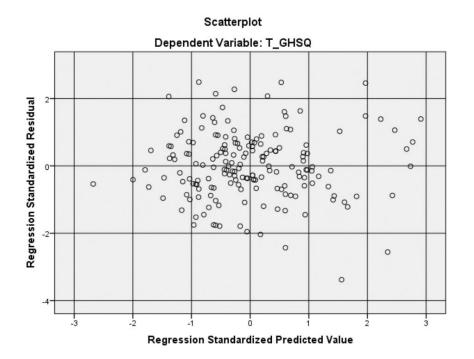
| DEELIN (O DEII | 111001 |    |       |         |
|----------------|--------|----|-------|---------|
| 115            | 2.459  | 70 | 49.86 | 20.142  |
| 169            | 2.489  | 62 | 41.61 | 20.389  |
| 176            | -2.558 | 30 | 50.95 | -20.952 |

#### Homoscedasticity, Residual Normality, and Residual Linearity

The residuals scatterplot in Figure 2 showed the standardized predicted value for GHSQ among adults in Malaysia and its residuals. Homoscedasticity in the scatterplot indicated that the residuals are equally distributed. Although it showed several outliers as it is beyond  $\pm 2SD$ , other major residuals in the scatterplot lie around the zero line and formed an oval shape. Therefore, no violations were observed in the assumptions of normality of residual, linearity, and homoscedasticity.

Figure 2

Scatterplot Illustrating Assumptions for Homoscedasticity, Residual Normality, and Residual Linearity



#### Multiple Linear Regression Analysis

A multiple linear regression analysis was executed to evaluate the predictive effect of MHL and PMHS on the help-seeking behaviour among Malaysian adults. To guarantee that the assumptions of normality of residuals, linearity of variables, multicollinearity, homoscedasticity, independence of residuals, and multivariate outliers are not violated, preliminary analyses were conducted. As shown in Table 8, the model was statistically significant F(2, 176) = 11.169, p < .001) and accounted for 10.3% of variance. Based on Table 9, it was found that MHL ( $\beta = .236$ , p = .001), and PMHS ( $\beta = -.264$ , p < .001) were both significant predictors towards help-seeking behaviour.

Table 8

ANOVA Table for the Regression Model

| Model | , ,        | Sum of    | df  | Mean    | F      | Sig.              |
|-------|------------|-----------|-----|---------|--------|-------------------|
|       |            | Squares   | J   | Square  |        | C                 |
| 1     | Regression | 1498.451  | 2   | 749.225 | 11.169 | .000 <sup>b</sup> |
|       | Residual   | 11806.477 | 176 | 67.082  |        |                   |
|       | Total      | 13304.927 | 178 |         |        |                   |

Note.  $R^2 = .336^a$ , Adjusted  $R^2 = .103$ 

 Table 9

 Table for the Regression Coefficient

| Model |                             | Std. β | t      | p    |
|-------|-----------------------------|--------|--------|------|
| 1     | (Constant)                  |        | 5.724  | .000 |
|       | Mental Health Literacy      | .236   | 3.304  | .001 |
|       | Public Mental Health Stigma | 264    | -3.693 | .000 |

Note. Dependent Variable: Help-Seeking Behaviour

#### **Inferential Statistics**

#### Pearson's Correlation Analysis

The Pearson product-moment correlation (PPMC) analysis was conducted to assess correlations between PMHS, MHL, and help-seeking behaviour (see Table 11). The results of this section will be demonstrated according to the hypotheses stated in Chapter I.

H<sub>1</sub>: Mental health literacy significantly correlates to help-seeking behaviour among adults in Malaysia. Findings indicate significant and positive correlation of MHL with help-seeking behaviour among adults in Malaysia, r(179) = .20, p = .005. Thus, H<sub>1</sub> is supported.

H<sub>2</sub>: Public mental health stigma significantly correlates to help-seeking behaviour among adults in Malaysia. A significant and negative correlation was found linking PMHS and help-seeking behaviour among adults in Malaysia, r(179) = -.24, p = .001. Thus, H<sub>2</sub> is accepted.

H3: Mental health literacy and public mental health stigma significantly predicts help-seeking behaviour among adults in Malaysia. MLR was used to examine if MHL and PMHS significantly predicted help-seeking behaviour. As displayed in Table 10, the regression model was statistically significant F(2, 176) = 11.169, p = <.001. A cumulative of 10.3% variances in help-seeking behaviour were demonstrated by MHL and PMHS. The effect size  $f^2 = .13$  calculated using the formula, in which  $f^2 = R^2/(1 - R^2)$ , was small (Cohen, 1988; Park et al., 2023). Moreover, as shown in Table 11, both MHL and PMHS was established as significant predictors of help-seeking behaviour. Thus,  $H_3$  is accepted.

**Table 10**Regression Model Summary

|            | $\frac{\partial}{\partial f}$ | F      | p    | Adj. $R^2$ | $R^2$ |
|------------|-------------------------------|--------|------|------------|-------|
| Regression | 2                             | 11.169 | .000 | .103       | .113  |
| Residual   | 176                           |        |      |            |       |
| Total      | 178                           |        |      |            |       |

*Note.* Dependent Variable = Help-Seeking Behaviour. Predictors = Public Mental Health Stigma, and Mental Health Literacy

**Table 11**Pearson Correlation Coefficients Between Variables

| Variables                      | 1      | 2    | 3 |
|--------------------------------|--------|------|---|
| 1. Help-Seeking Behaviour      | -      |      |   |
| 2. Mental Health Literacy      | .209** | -    |   |
| 3. Public Mental Health Stigma | 240**  | .100 | - |

*Note.* \*\**p*<.01

#### Chapter V

#### **Discussion**

#### Public Mental Health Stigma and Help-Seeking Behaviour

This current study intended to examine the relationship between PMHS and help-seeking behaviour among adults in Malaysia. According to the results of the study, PMHS has a significant negative correlation with behaviour of seeking help.

The findings of the current study support Hypothesis 2 which stated that PMHS significantly correlates to help-seeking behaviour among adults in Malaysia. The significant negative relationship indicates that as the level of PMHS increases, the tendency for Malaysian adults to carry out help-seeking behaviour decreases. Some similar findings in both Malaysian and non-Malaysian context could be found to support this statement (Alhomaizi et al., 2018; Aris & Othman, 2022; Cheng et al., 2018; Clement et al., 2015; Topkaya, 2015).

PMHS could possibly prevent people from help-seeking behaviour due to their fear of stigma. A study by Dewa (2014) has showed that up to 54.6% of working adults were inclined towards not disclosing their mental health issues to their superiors due to fear of affecting their job and career. This research has also uncovered the reason behind working adults to avoid the disclosure of their mental health issues, not to mention about help-seeking. Disruptive factors towards career such as being abandoned, losing credibility, being gossiped and being targeted for prejudice and discrimination at workplace could also stem from PMHS (Dewa, 2014). Another study by Price and Kerschbaum (2017) has shown that up to 87 % of 267 adults working as academics abstain from utilising mental health support resources with the main reason being fear of stigma and professional risk. The avoidance on help-seeking behaviour same applies to athletes in order to avoid being viewed as weak by their counterparts, coaches, teammates,

parents and even themselves (Bauman, 2016; Gulliver et al., 2010). The fear of stigma made them fear of being identified as in need of help to handle their mental health issues; thus, reduce help-seeking behaviour.

Additionally, help-seeking behaviour or initiatives could be avoided by individuals with mental disorders in order to escape from being stigmatized by the public with mental illness labels, relevant stereotypes and discrimination (DeLuca et al., 2020; Shechtman et al., 2018). According to Ibrahim et al. (2020), people who fear of PMHS are more inclined to conceal their mental health issues and dodge from all help, informal and formal. Common PMHS which terrifies individuals with mental health issues could be viewed as a "crazy", "dangerous" person. Moreover, they would be less favoured and labelled as emotionally unstable.

On the other hand, it is possible that cultural stigmatization could shape PMHS to some extent (Koon et al., 2023). In other words, there are cultural barriers towards help-seeking behaviour, and according to Koon et al. (2023), these barriers still exist in Malaysia. Besides, a study in Sabah, Malaysia by Shoesmith et al. (2018) emphasised that people would only seek for help in psychiatric diagnoses and intervention as their last resort when suffering from critical mental disorders. According to Aris and Othman (2022), people would most likely seek for help only when they are unable to cope with their mental health issues. This stems from the thought that they might be able to tackle own problems independently, and some may even doubt about professional help-seeking. A study by Mojtabai et al. (2016) could further support the above findings with their research statistics where 33.4% out of 5,001 civilian population from United States would only go for formal help-seeking when they are facing severe mental health issues. Boey (1999) has mentioned that Chinese college students, especially male students, also preferred to handle their problems independently when coping with severe mental distress. The

culture of reserving help-seeking, especially from professionals as the last resort could contribute to shaping or even increasing the PMHS, thus, decreasing help-seeking behaviour.

Furthermore, considering a small subsection under cultural factor, religiosity has been correlated with negative attitudes towards mental health services among United States Latinx individuals (Moreno et al., 2017) and Turkish Muslims (Rogers-Sirin et al., 2017). Shoesmith et al. (2018) have also found that certain segments of the Malaysian society treated mental health disorders as phenomenon of supernatural. Therefore, the interventions utilised for mental health issue in this particular segment are from informal resource instead of mental health professionals.

Lastly, as PMHS was found to be a significant predictor, Hypothesis 3 of the present study has been supported. Some similar studies were found to be aligned with the findings of this study (Rüsch et al., 2014; Wahto et al., 2016; Wu et al., 2017). A study by Wahto et al. (2016), tested PMHS as a predictor of help-seeking attitudes in student athletes. Another research on Swedish citizens indicated that high PMHS would predict a lesser tendency in formal behaviour (Rüsch et al., 2014). Wu et al. (2017) on the other hand, stated that the integration of high-level PMHS and self-stigma with low perceived need might reduce the tendency in help-seeking, causing greater risk for mental health issues. An interesting study by Yang et al. (2023) in China Chinese context has highlighted on the collectivistic culture of Chinese that can be applied to the current study in some extent. As the culture values harmony in social relationships, they have to conform to social norms in order to avoid being stigmatised or excluded. Thus, PMHS in this context were often transform into self-stigma and predicts negatively on the individual selfdisclosure, which could be inferred as informal help-seeking behaviour. This somehow could apply to the Malaysian context as Santos et al. (2017) and Mastor et al. (2000) mentioned that even if it is modern Malaysia, but it still practices traditional collectivistic cultures such as

"saving face" and conscientiousness, especially with the increase of social media use. Findings in Santos et al. (2017) also further confirm the collectivistic culture in Malaysia, as it is found to have an undeniable decrease in individualism and individualist practices over time.

#### Mental Health Literacy and Help-Seeking Behaviour

The relationship between MHL and help-seeking behaviour among adults in Malaysia was also explored throughout the current study. The findings of current study indicated that MHL has a significant positive correlation with help-seeking behaviour.

The findings of the present study support Hypothesis 1 which stated that MHL significantly correlates to help-seeking behaviour among adults in Malaysia. The significant positive relationship indicates that the higher the level of a person's MHL, the higher tendency for Malaysian adults to carry out help-seeking behaviour. This was found to be aligned with some similar findings from past studies in various contexts (Almanasef, 2021; Aris & Othman, 2022; Fung et al., 2021; Gorczynski et al., 2020; Radez et al., 2021; Yang et al., 2024).

Mottus et al. (2014) states that individuals with higher levels of MHL will know better about mental illness such as symptoms, causes and intervention; thus, having a more positive attitude in help-seeking behaviour. Studies by Wang et al. (2019) and Topkaya (2015) have also mentioned that inadequate knowledge on sources of help such as mental health services is amongst the factors for the refusal of help-seeking. Given that 96% out of 53 studies in a systematic review by Radez et al. (2021) showed strong positive relationship between MHL and youngsters' attitudes towards formal help-seeking, it can be said that MHL can enhance formal help-seeking behaviour (Gorczynski et al., 2020; Tomczyk et al., 2018).

According to the Malaysian National Health and Morbidity Survey 2015, only 6.6% of adults (aged 18 years and above) had sufficient levels of health literacy (HL). They are mostly

from the 20-34 age group and individuals of the Chinese race were found to have the highest prevalence of adequate HL. In the current study, 77.1% were categorized in the age group of 20-34, and 97.2% are Chinese. Moreover, the mean score for help-seeking behaviour was 44.15, which was more than half of the total score of 70 on the GHSQ scale. Therefore, it can be further justified that the respondents in the current study have a higher MHL, thus a higher tendency towards help-seeking behaviour.

As such, students were found to have higher MHL and thus, are more likely to go for formal help-seeking behaviour (Rafal et al., 2018). An interesting finding in Saudi Arabia has highlighted that students tend to seek for formal help from a psychologist or a psychiatrist and informal help from a friend (Almanasef, 2021). Furthermore, it was also to be noted that they were less inclined to reach out to a religious leader, a general practitioner or a teaching faculty for help-seeking. Additionally, students without history of mental illness were inclined to seek for informal help compared to the ones with history of mental illness (Almanasef, 2021). This further proves that students in general do have higher MHL and thus, increases the likelihood of them engaging in help-seeking behaviour when it is needed.

On the other hand, the same situation as mentioned in PMHS, mental illnesses are intervened at a late stage in Malaysia due to low help-seeking behaviour (Abdullah et al., 2011). According to Shoesmith et al. (2018), formal help-seeking is being treated as the last resort could be due to the low MHL and cultural variations (for example, mental illnesses are more towards spiritual or supernatural). As mentioned by Ibrahim et al. (2020), the level of MHL is considered low in emerging economy countries such as Malaysia. Therefore, there is a need for improving the overall MHL in Malaysians in order to promote help-seeking behaviour.

Lastly, as MHL were found to be a significant predictor, Hypothesis 3 of the present study has been supported. Some similar studies corresponded with the findings of this study (Bonabi et al., 2016; Rüsch et al., 2014). It was found that MHL significantly predicts formal help-seeking behaviour (Bonabi et al., 2016). The research on Swedish citizens by Rüsch et al. (2014) also showed that low MHL could cause lower tendency in formal help-seeking behaviour. The limited MHL might trigger the negative stereotypes and stigma, and therefore, lower the tendency for formal help-seeking. As mentioned by Topkaya (2015), the trust issue in mental health care providers has affected the help-seeking behaviour. Therefore, improving MHL can help individuals to acknowledge the mental health profession better and normalize usage of mental health services (Yang et al., 2023). In this case, people would reduce their concern and trust issue of breaches in confidentiality or being judged; therefore, improving the help-seeking behaviour. Apart from that, the improvement of MHL would also amend individuals' attributions towards mental health issues (Coles & Coleman, 2010). As people now realise that mental health issue attributions vary in both external factors (such as stressors) and internal factors (such as personal shortcomings or biological factors), people would start to acknowledge the significance of help-seeking behaviour instead of solely relying on one's own solutions (Yang et al., 2023).

#### **Implications**

#### Theoretical Implications

One of the theories applied in this research is the Mental Health Literacy Theory, developed by Jorm et al. (1997) It offered a framework for analysing the link between help-seeking behaviour and MHL. According to this study, it was found that MHL significantly and positively correlates with help-seeking behaviour among Malaysian adults. This was consistent with the Mental Health Literacy Theory, which proposed that people who are more mentally

literate are easier to recognize warning signals of mental illness early on and therefore seek the right help when needed (Jorm et al., 1997). According to the findings of the study, MHL significantly predicted help-seeking behaviour, therefore, this highlighted the need for educational initiatives aimed at enhancing MHL to encourage help-seeking behaviour. In short, this study found that MHL was positively correlated with and significantly predicted help-seeking behaviours among Malaysian adults. Thus, this research can serve as a reference for future studies that find out the link between MHL and help-seeking behaviours among other age groups to further expand the purpose of Mental Health Literacy Theory.

Besides, the Theory of Planned Behaviour (TPB), originated by Icek Ajzen, is another theory that was used in this study to investigate the relationship between help-seeking behaviour among adults in Malaysia and PMHS. The study's findings highlighted a significant and negative relationship between Malaysian adults' behaviour of seeking help and PMHS. This finding was aligned with TPB, which stated that when mental health is stigmatized, individuals with mental illnesses may refuse to seek help (Kulesza et al., 2015). The negative correlation supported the theory that stigma has a negative impact on attitudes about obtaining mental health care by indicating that higher PMHS are associated to a reduced chance of seeking help. According to TPB, where a person's intentions, attitudes, perceptions of social norms, and sense of control over a behaviour all had an impact on their behaviour (Ajzen, 1991). By integrating TPB, this study contributed to a deeper understanding of factors related to help-seeking behaviours. To sum up, the current study suggested that PMHS negatively correlated and significantly predicted help-seeking behaviour among adults in Malaysia. Future research should continue exploring PMHS and help-seeking behaviour in various cultural settings to further broaden the applicability of TPB across diverse populations.

#### **Practical Implications**

This study has its implications which can be directed towards several stakeholders. In this study, we see the effect of MHL on the help-seeking behaviours of adults in Malaysia. Despite information and knowledge regarding mental health has increased tremendously in the current era of digitization, robust implementation and enforcement through specific policies from the government is still fundamental for things to get moving (Aris & Othman, 2022). Thus, the findings of the current study can aid in increasing the awareness of government authorities to do more in line with one of the objectives stated in "The National Strategic Plan for Mental Health 2020-2025" which was to "reinforce mental health promotion and prevention strategies and improve mental health literacy" (Ministry of Health Malaysia, 2020).

However, initiative from the government alone will be insufficient if relevant parties do not heed to the efforts by the government. Therefore, the current study also has a few suggestions for schools and human resource management (HRM) in businesses. Although the socioeconomic status of participants was not included in this study, the level of education of participants were one of the pieces of information collected. An individual's level of education may be a potential predictor of MHL, though not emphasised as a variable being examined in the current study. According to Ibrahim et al. (2020), adequate HL was only found in 5.1% of individuals with a secondary school education, as indicated by the National Health and Morbidity Survey. Additionally, a lower socio-economic status was naturally related with lower education level and thus associated to potentially lower MHL (Mills, 2015). As such, in light of potential government initiatives alongside the collaboration of businesses and schools, these authorities could increase efforts in educating students and employees on basic mental health knowledge. This would also mean that schools and employers would have to take any reports or matters

regarding mental health issues from students and employees seriously; to practice what is preached.

Lastly, this study indicated a negative association linking PMHS and help-seeking behaviours. This might be due to most of the participants were university students in which the prevailing social norm of being accepting towards seeking mental health support was greater among them (Koon et al., 2023) given the current talk and awareness about mental health on social media platforms. This then makes collectivism a value of lesser importance in determining attitudes and stigma towards help-seeking, thus indicating that collectivism may be dependent on the prevailing social norm. As such, if the participants were made up of more working adults who are of a different generation where mental health help-seeking was judged greatly and even stigmatised, the results may have a different outcome. This then reinforces the implication for businesses, mental health practitioners, and the general public to educate themselves on MHL and pass on the information unto others around them, therefore decreasing the stigma towards pursuing for mental health support.

#### **Limitation and Recommendations**

The current research has its own limitations. Firstly, the findings of this study were unfit to be applied or generalised to the Malaysian working population. This is due to the unbalanced number of female responses compared to males, the age of most of the participants, as well as an uneven ethnic disposition among respondents. Particularly, the percentage of Chinese respondents in current study significantly superseded the number of Indian respondents, and no Malay respondents were included, which deviates significantly from Malaysia's cultural ethnic composition. As a result, it is suggested that future studies use the probability sampling method,

such as stratified sampling, to make sure the ethnic composition among participants were representative of the population and to improve generalisability of the study.

Additionally, one of the limitations of current research is its focus on adults within the age range of 19–70, which overlooks younger populations, especially adolescents, who are also at risk. According to the latest National Health and Morbidity Survey 2023, in Malaysia, adolescents aged 16–19 have the highest depression prevalence in comparison with other age groups (Institute for Public Health, 2023). This is particularly concerning, as adolescents may face high levels of MHS and low MHL, which can discourage adolescents to seek help from professional in mental health. Thus, this showed that there is a need for attention for this age group. The survey also found that 4.6% of the Malaysian population aged 16 and above suffers from depression. Without targeted research, interventions might fail to address the specific needs of adolescents, potentially leading to inadequate support and treatment options. Therefore, the recommendation for this limitation is to conduct more research on adolescents to better understand their challenges and to develop strategies that can address their mental health needs.

Besides that, upon requiring respondents to indicate if they have had any history of mental illness as part of the inclusion and exclusion criteria, it was not specified that an official diagnosis from mental health professionals were required. Despite the question prior to this asking if the respondent had been 'diagnosed' with mental illness in the past one year, respondents who selected 'no' for the prior question may not assume the same conditions of requiring official diagnosis for the current question at hand. As such, respondents who have no official diagnosis but felt that they might have had mental illness in the past would still agree with the question and automatically be removed from the survey. Therefore, a recommendation to this limitation would be to clearly state requirements of needing official diagnosis when it

comes to mental illness in order to avoid respondents being removed unnecessarily which may increase the overall sample size.

Regarding the strength of the association between PMHS and help-seeking behaviour in the current study. In the research by Henderson et al. (2013), they proposed that instead of direct influence, public stigma might affect both anticipated & experienced stigma of individuals with mental disorders. This indicates that public stigma did not directly affect help-seeking behaviour and might not result in strong relationship with it. Another interesting study mentioned that adolescents reacted differently in help-seeking for hypothetical peers with diagnosable mental health issues versus they themselves who are with objectively reported high symptoms (Villatoro et al., 2022). Therefore, the big umbrella of stigma does not always make the same level of impact on help-seeking behaviour. As the eligible respondents of the current study do not have any history or diagnosis of mental illness, there is a possibility that they were in the perspective of encouraging others to seek help rather than they themselves. Therefore, despite the respondents in this study is generally low in PMHS, their help-seeking behaviour is still low as they do not need the help for themselves. To address this limitation, future research could consider researching on other population and/or take other types of stigmas (such as anticipated stigma, experienced stigma, self-stigma, etc.) into account as predictors, mediators or moderators. This could further explore other factors that contribute more directly towards helpseeking behaviour in the respective population.

Lastly, the nature of cross-sectional design in the current study was unable to provide information relevant to time influence about the variables; therefore, less valid and effective in exploring the cause and effect in detailed for the variables (Caruana et al., 2015). For future studies for the similar topic, longitudinal design could be developed to better understand and

observe the findings and variables. Particularly, assessing the relationship between the current

factors or any other additional factors and help-seeking relevant elements.

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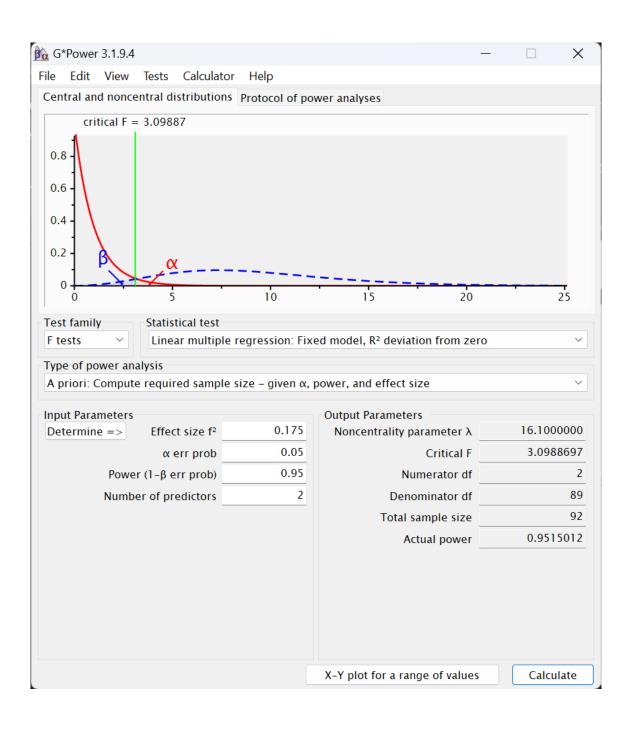
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#### **Appendices**

#### Appendix A: Sample Size Calculation using G\* Power



**Appendix B: Online Survey Questionnaire** 

### Relationship Between Public Mental Health Stigma, Mental Health Literacy, and Help-Seeking Behaviour

**Start of Block: Participation** 

#### Participation

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

We would like to conduct a research study to examine the relationship between public mental health stigma, mental health literacy, and help-seeking behaviour among adults in Malaysia.

#### **Procedures and Confidentiality**

The following questionnaire will require approximately 15 minutes to complete. All information provided will remain as private and confidential. The information given will only be reported as group data with no identifying information and only use for academic purpose.

#### **Participation**

All the information gathered will remain anonymous and confidential. Your information will not be disclosed to any unauthorized person and would be accessible only by group members. Participant in this study is voluntary, you are free to withdraw with consent and discontinue participation in anytime without prejudice. Your responses will be coded numerically in the research assignment for the research interpretation. Your cooperation would be greatly appreciated.

If you choose to participate in this project, please answer all the questions as honestly as possible and return the completed questionnaire promptly.

| Yes, I agree to participate in this project. (1)  |     |
|---|-----|
| No, I do not agree to participate in this project | (2) |

Skip To: End of Survey If Department of Psychology and Counseling Faculty of Arts and Social Science Universiti Tunku Abdul... = No, I do not agree to participate in this project

**End of Block: Participation** 

**Start of Block: Informed Consent** 

#### **Informed Consent**

#### **Personal Data Protection Notice**

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

- 1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:
- a) Name
- b) Identity card
- c) Place of Birth
- d) Address
- e) Education History
- f) Employment History
- g) Medical History
- h) Blood type
- i) Race
- j) Religion
- k) Photo
- 1) Personal Information and Associated Research Data
- 2. The purposes for which your personal data may be used are inclusive but not limited to:
- a) For assessment of any application to UTAR

- b) For processing any benefits and services
- c) For communication purposes
- d) For advertorial and news
- e) For general administration and record purposes
- f) For enhancing the value of education
- g) For educational and related purposes consequential to UTAR
- h) For replying any responds to complaints and enquiries
- i) For the purpose of our corporate governance
- j) For the purposes of conducting research/ collaboration
- 3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.
- 4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.
- 5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

#### **Consent:**

- 6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.
- 7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
- 8. You may access and update your personal data by writing to us at:

Chan Ming Chen (mingchen@1utar.my)

Chew Jia Xin (jiaxin0903@1utar.my)

Lilian Soh Li-Ern (liliansoh27@1utar.my)

#### **Acknowledgement of notice:**

| ○ I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice. (1)   |
|---|
| O I disagree, my personal data will not be processed. (2)   |
| Skip To: End of Survey If Personal Data Protection Notice Please be informed that in accordance with Personal Data Protec = $I$ disagree, my personal data will not be processed. |
| End of Block: Informed Consent  |
| Start of Block: Demographic Section   |
| Q4 Section A: Demographic Section   |
| Nationality Nationality   |
| O Malaysian (1)   |
| O Non-Malaysian (2)   |
| Skip To: End of Survey If Nationality = Non-Malaysian   |
| *   |
| Age Age   |
| Skip To: End of Survey If Condition: Age Is Less Than 18. Skip To: End of Survey.   |

| Gender Gender                                   |   |
|---|---|
| O Male (1)                                      |   |
| O Female (2)                                    |   |
|   |   |
|   |   |
| Race Race                                       |   |
| O Malay (1)                                     |   |
| O Chinese (2)                                   |   |
| O Indian (3)                                    |   |
| Others (Please Specify): (4)                    |   |
|   | _ |
|   |   |
| Highest level of edu Highest level of education |   |
| O Primary Education (1)                         |   |
| O Secondary Education (2)                       |   |
| O Tertiary Education (3)                        |   |
|   |   |

| SEEKING BEHAVIOUR  M.I. diagnosis I have been diagnosed with mental illness in the past 12 months                       |
|---|
| O Yes (1)   |
| O No (2)  |
| Skip To: End of Survey If I have been diagnosed with mental illness in the past 12 months = Yes                         |
|   |
| M.I. History I have a history of mental illness   |
| ○ Yes (1)   |
| O No (2)  |
| Skip To: End of Survey If I have a history of mental illness = Yes  |
| M.H profession My occupation is within the mental health profession   |
| O Yes (1)   |
| O No (2)  |
| Skip To: End of Survey If My occupation is within the mental health profession = Yes  End of Block: Demographic Section |
| Start of Block: Mental Health Knowledge Schedule  |

MAKS 1-6 For each of statements 1-6 below, respond by ticking one box only. Mental health problems here refer, for example, to conditions for which an individual would be seen by healthcare staff.

|  | Strongly<br>Agree (5) | Slightly<br>Agree (4) | Neither agree<br>nor disagree /<br>Don't know<br>(3) | Slightly<br>Disagree (2) | Strongly<br>Disagree (1) |
|--|-----------------------|-----------------------|--|--------------------------|--------------------------|
| 1. Most people with mental health problems want to have paid employment.   | 0                     | 0                     | 0  | 0                        | 0                        |
| 2. If a friend had a mental health problem, I know what advice to give them to get professional help. (2)                        |                       | 0                     |  |                          |                          |
| 3. Medication can be an effective treatment for people with mental health problems. (3)  | 0                     | 0                     | 0  |                          | 0                        |
| 4. Psychotherapy (e.g. talking therapy or counselling) can be an effective treatment for people with mental health problems. (4) |                       |                       |  |                          |                          |

| 5. People with severe mental health problems can fully recover.  (5)  | 0 |  | 0 | 0 |
|---|---|--|---|---|
| 6. Most<br>people with<br>mental health<br>problems go<br>to a healthcare<br>professional<br>to get help. (6) | 0 |  | 0 |   |
|   |   |  |   |   |

MAKS 7-12 Say whether you think each condition is a type of mental illness by ticking one box only.

|   | Strongly<br>Agree (5) | Slightly<br>Agree (4) | Neither agree<br>nor disagree /<br>Don't know<br>(3) | Slightly<br>Disagree (2) | Strongly<br>Disagree (1) |
|---|-----------------------|-----------------------|--|--------------------------|--------------------------|
| 7. Depression (1)                           | 0                     | 0                     | 0  | 0                        | 0                        |
| 8. Stress (2)                               | $\circ$               | $\circ$               | $\circ$  | $\bigcirc$               | $\circ$                  |
| 9.<br>Schizophrenia<br>(3)                  | 0                     | $\circ$               | 0  | $\circ$                  | 0                        |
| 10. Bipolar disorder (Manic-depression) (4) | 0                     | 0                     | 0  | 0                        | 0                        |
| 11. Drug addiction (5)                      | $\circ$               | $\circ$               | $\circ$  | $\circ$                  | $\circ$                  |
| 12.Grief (6)                                | $\circ$               | $\circ$               | 0  | $\circ$                  | $\circ$                  |

**End of Block: Mental Health Knowledge Schedule** 

**Start of Block: Community Attitudes towards Mental Illness** 

CAMI-20 For each of statements below, respond by ticking one box only.

|   | Strongly agree (1) | Somewhat agree (2) | Neither<br>agree nor<br>disagree (3) | Somewhat disagree (4) | Strongly disagree (5) |
|---|--------------------|--------------------|--------------------------------------|-----------------------|-----------------------|
| 1. There should not be any over-emphasis that the mentally ill endanger the public (1)                        | 0                  | 0                  | 0                                    | 0                     | 0                     |
| 2. The situation that mentally ill have for too long been the subject of ridicule should be put to an end (2) | 0                  | 0                  |                                      |                       | 0                     |
| 3. The mentally ill should not be isolated from the rest of the community (3)                                 | 0                  | 0                  | 0                                    |                       | 0                     |
| 4. The most effective therapy for many mental patients is to let them go back to a normal community (4)       |                    | 0                  |                                      |                       |                       |

| 5. Mental patients need the same kind of control and discipline as a young child.  (5)  |   | 0 |   | 0 |   |
|---|---|---|---|---|---|
| 6. Increased spending on mental health services is a waste (6)  | 0 | 0 | 0 | 0 | 0 |
| 7. The mentally ill are far less of a danger than most people imagine (7)   |   | 0 | 0 | 0 | 0 |
| 8. Residents should accept the location of mental health institutions in their neighborhood to serve the needs of the residents (8) |   | 0 | 0 | 0 |   |
| 9. The mentally ill should not be treated as if they are outcasts of society (9)  |   | 0 | 0 | 0 | 0 |
| 10. There have been sufficient existing facilities of mental health services (10)   |   | 0 | 0 | 0 | 0 |

| 11. A woman would be very unwise to marry a man who has suffered from mental illness, even though he seems to have regained normality (11) |   |   | 0 | 0 | 0 |
|--|---|---|---|---|---|
| 12. Mental health facilities should be kept out of residential neighborhoods (12)  |   | 0 | 0 | 0 | 0 |
| 13. The best way to handle the mentally ill is to keep them behind locked doors (13)   | 0 | 0 | 0 | 0 | 0 |
| 14. The mentally ill don't deserve our sympathy.  (14)   | 0 | 0 | 0 | 0 | 0 |
| 15. I would<br>not want to<br>have a<br>neighbor who<br>has been<br>mentally ill<br>(15)   |   | 0 | 0 | 0 | 0 |

| 16. Residents have nothing to fear from people coming into their neighborhood to obtain mental health services (16)           | 0 | 0 | 0 |   | 0 |
|---|---|---|---|---|---|
| 17. Virtually anyone can become mentally ill (17)   | 0 | 0 | 0 | 0 | 0 |
| 18. It is best<br>not to have<br>any contact<br>with a person<br>who has<br>mental<br>problems (18)                           | 0 | 0 | 0 | 0 | 0 |
| 19. Most<br>women who<br>were once<br>patients in a<br>mental<br>hospital can<br>be trusted to<br>take care of<br>babies (19) | 0 | 0 | 0 | 0 | 0 |
| 20. It is frightening whenever to think of people with mental problems living nearby (20)                                     | 0 | 0 | 0 | 0 |   |

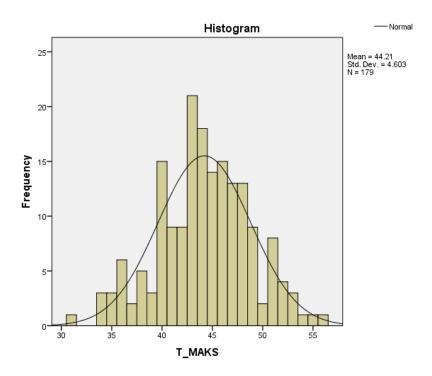
**End of Block: Community Attitudes towards Mental Illness** 

Start of Block: General Help-Seeking Questionnaire

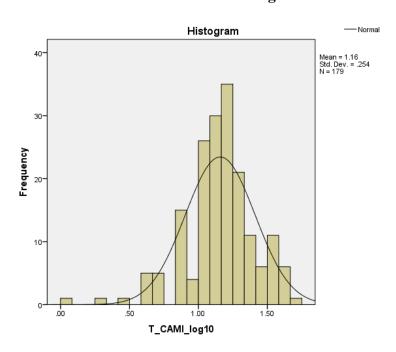
#### **Appendix C: SPSS Results**

#### Appendix C1: Histograms

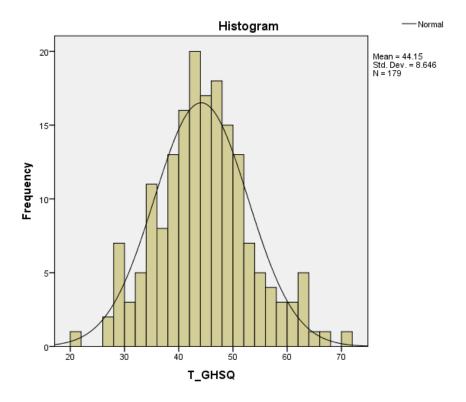
#### **Mental Health Literacy**



#### **Public Mental Health Stigma**

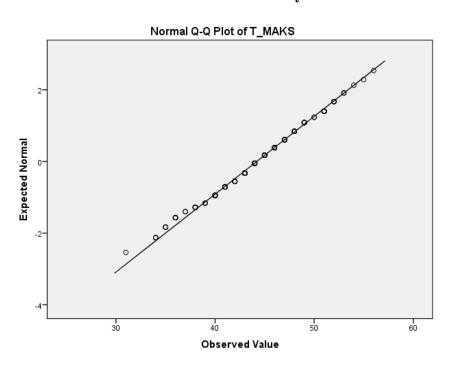


#### **Help-Seeking Behaviour**

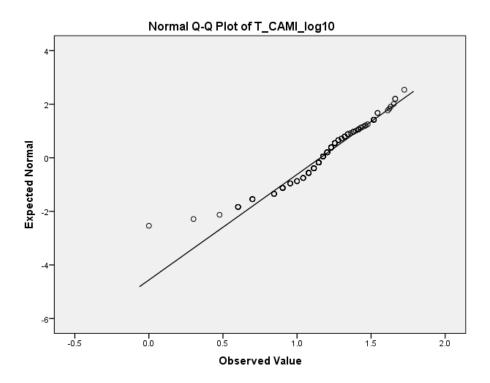


Appendix C2: Q-Q Plots

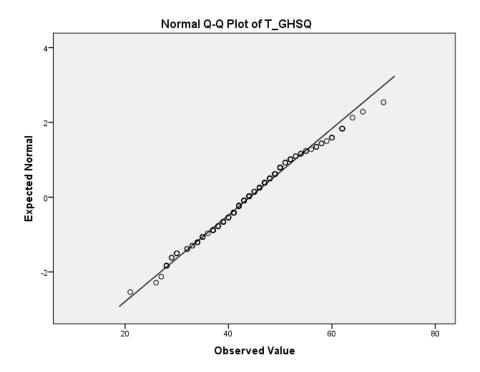
#### **Mental Health Literacy**



#### **Public Mental Health Stigma**



**Help-Seeking Behaviour** 



Appendix C3: Casewise Diagnostics for Multivariate Outliers

#### Casewise Diagnostics<sup>a</sup>

| Case Number | Std. Residual | T_GHSQ | Predicted<br>Value | Residual |
|-------------|---------------|--------|--------------------|----------|
| 3           | -2.429        | 26     | 45.90              | -19.897  |
| 4           | 2.060         | 57     | 40.13              | 16.874   |
| 5           | -2.034        | 28     | 44.66              | -16.660  |
| 32          | 2.480         | 66     | 45.69              | 20.311   |
| 40          | -3.379        | 21     | 48.67              | -27.672  |
| 58          | 2.275         | 62     | 43.37              | 18.630   |
| 82          | 2.143         | 60     | 42.45              | 17.555   |
| 91          | 2.074         | 62     | 45.01              | 16.989   |
| 115         | 2.459         | 70     | 49.86              | 20.142   |
| 169         | 2.489         | 62     | 41.61              | 20.389   |
| 176         | -2.558        | 30     | 50.95              | -20.952  |

a. Dependent Variable: T\_GHSQ

#### Appendix C4: Case Summaries

#### Case Summaries<sup>a</sup>

|    |          |         |             | Mahalanobis | Cook!a   | Centered          |
|----|----------|---------|-------------|-------------|----------|-------------------|
|    |          |         | Case Number |             | Distance | Leverage<br>Value |
| ID | 1        | 1       | 1           | 1.04001     | .00849   | .00584            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 2        | 1       | 2           | .49001      | .00506   | .00275            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 3        | 1       | 3           | .69172      | .01899   | .00389            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 4        | 1       | 4           | 1.92792     | .02401   | .01083            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 5        | 1       | 5           | .86724      | .01473   | .00487            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 6        | 1       | 6           | .17174      | .00015   | .00096            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 7        | 1       | 7           | .40436      | .00132   | .00227            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 8        | 1       | 8           | 10.18477    | .02687   | .05722            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 9        | 1       | 9           | 3.21026     | .00230   | .01804            |
|    |          | Total N |             | 1           | 1        | 1                 |
|    | 10       | 1       | 10          | 3.02901     | .00009   | .01702            |
|    | <u> </u> | Total N |             | 1           | 1        | 1                 |

| 11 | 1       | 11 | 2.18284 | .00009 | .01226 |
|----|---------|----|---------|--------|--------|
|    | Total N |    | 1       | 1      | 1      |
| 12 | 1       | 12 | .17412  | .00165 | .00098 |
|    | Total N |    | 1       | 1      | 1      |
| 13 | 1       | 13 | 4.22878 | .01833 | .02376 |
|    | Total N |    | 1       | 1      | 1      |
| 14 | 1       | 14 | 3.44744 | .01297 | .01937 |
|    | Total N |    | 1       | 1      | 1      |
| 15 | 1       | 15 | .03950  | .00056 | .00022 |
|    | Total N |    | 1       | 1      | 1      |
| 16 | 1       | 16 | .00914  | .00223 | .00005 |
|    | Total N |    | 1       | 1      | 1      |
| 17 | 1       | 17 | 8.94774 | .00526 | .05027 |
|    | Total N |    | 1       | 1      | 1      |
| 18 | 1       | 18 | .97387  | .00065 | .00547 |
|    | Total N |    | 1       | 1      | 1      |
| 19 | 1       | 19 | 8.75470 | .00000 | .04918 |
|    | Total N |    | 1       | 1      | 1      |
| 20 | 1       | 20 | .50783  | .00237 | .00285 |
|    | Total N |    | 1       | 1      | 1      |
| 21 | 1       | 21 | 7.84646 | .00001 | .04408 |
|    | Total N |    | 1       | 1      | 1      |
| 22 | 1       | 22 | .55251  | .00601 | .00310 |
|    | Total N |    | 1       | 1      | 1      |

| 23 | 1       | 23 | .87624  | .00013 | .00492 |
|----|---------|----|---------|--------|--------|
|    | Total N |    | 1       | 1      | 1      |
| 24 | 1       | 24 | 1.12184 | .00117 | .00630 |
|    | Total N |    | 1       | 1      | 1      |
| 25 | 1       | 25 | 4.07971 | .00126 | .02292 |
|    | Total N |    | 1       | 1      | 1      |
| 26 | 1       | 26 | .98751  | .00178 | .00555 |
|    | Total N |    | 1       | 1      | 1      |
| 27 | 1       | 27 | 1.14357 | .00041 | .00642 |
|    | Total N |    | 1       | 1      | 1      |
| 28 | 1       | 28 | .38465  | .00036 | .00216 |
|    | Total N |    | 1       | 1      | 1      |
| 29 | 1       | 29 | .42453  | .00030 | .00238 |
|    | Total N |    | 1       | 1      | 1      |
| 30 | 1       | 30 | .48825  | .00180 | .00274 |
|    | Total N |    | 1       | 1      | 1      |
| 31 | 1       | 31 | 4.13544 | .02238 | .02323 |
|    | Total N |    | 1       | 1      | 1      |
| 32 | 1       | 32 | 3.32062 | .05220 | .01866 |
|    | Total N |    | 1       | 1      | 1      |
| 33 | 1       | 33 | .37642  | .00008 | .00211 |
|    | Total N |    | 1       | 1      | 1      |
| 34 | 1       | 34 | 3.96227 | .01038 | .02226 |
|    | Total N |    | 1       | 1      | 1      |

| 35 | 1       | 35 | .54890   | .00493 | .00308 |
|----|---------|----|----------|--------|--------|
|    |         |    |          |        |        |
|    | Total N |    | 1        | 1      | 1      |
| 36 | 1       | 36 | .27362   | .00094 | .00154 |
|    | Total N |    | 1        | 1      | 1      |
| 37 | 1       | 37 | .63592   | .00008 | .00357 |
|    | Total N |    | 1        | 1      | 1      |
| 38 | 1       | 38 | 1.08908  | .00061 | .00612 |
|    | Total N |    | 1        | 1      | 1      |
| 39 | 1       | 39 | .40807   | .00129 | .00229 |
|    | Total N |    | 1        | 1      | 1      |
| 40 | 1       | 40 | 2.64748  | .08114 | .01487 |
|    | Total N |    | 1        | 1      | 1      |
| 41 | 1       | 41 | 2.18284  | .00084 | .01226 |
|    | Total N |    | 1        | 1      | 1      |
| 42 | 1       | 42 | 3.01361  | .00059 | .01693 |
|    | Total N |    | 1        | 1      | 1      |
| 43 | 1       | 43 | .27362   | .00013 | .00154 |
|    | Total N |    | 1        | 1      | 1      |
| 44 | 1       | 44 | 10.61547 | .01252 | .05964 |
|    | Total N |    | 1        | 1      | 1      |
| 45 | 1       | 45 | 1.67699  | .00022 | .00942 |
|    | Total N |    | 1        | 1      | 1      |
| 46 | 1       | 46 | .08129   | .00029 | .00046 |
|    | Total N |    | 1        | 1      | 1      |
|    |         | I  | I        | I      |        |

| 47 | 1       | 47 | .09370  | .00135 | .00053 |
|----|---------|----|---------|--------|--------|
|    | Total N |    | 1       | 1      | 1      |
| 48 | 1       | 48 | 1.23303 | .00057 | .00693 |
|    | Total N |    | 1       | 1      | 1      |
| 49 | 1       | 49 | .08002  | .00036 | .00045 |
|    | Total N |    | 1       | 1      | 1      |
| 50 | 1       | 50 | .17412  | .00004 | .00098 |
|    | Total N |    | 1       | 1      | 1      |
| 51 | 1       | 51 | 4.46192 | .00182 | .02507 |
|    | Total N |    | 1       | 1      | 1      |
| 52 | 1       | 52 | 2.88295 | .00291 | .01620 |
|    | Total N |    | 1       | 1      | 1      |
| 53 | 1       | 53 | 5.50222 | .01331 | .03091 |
|    | Total N |    | 1       | 1      | 1      |
| 54 | 1       | 54 | 1.40356 | .00116 | .00789 |
|    | Total N |    | 1       | 1      | 1      |
| 55 | 1       | 55 | 1.60838 | .00011 | .00904 |
|    | Total N |    | 1       | 1      | 1      |
| 56 | 1       | 56 | 2.88295 | .00010 | .01620 |
|    | Total N |    | 1       | 1      | 1      |
| 57 | 1       | 57 | .72551  | .00072 | .00408 |
|    | Total N |    | 1       | 1      | 1      |
| 58 | 1       | 58 | 2.46768 | .03489 | .01386 |
|    | Total N |    | 1       | 1      | 1      |

| 59 | 1       | 59 | 4.54469 | .00880 | .02553 |
|----|---------|----|---------|--------|--------|
|    | Total N |    | <br> 1  | 1      | 1      |
| 60 | 1       | 60 | 2.52211 | .00308 | .01417 |
|    | Total N |    | 1       | 1      | 1      |
| 61 | 1       | 61 | .37973  | .00030 | .00213 |
|    | Total N |    | 1       | 1      | 1      |
| 62 | 1       | 62 | .78841  | .00278 | .00443 |
|    | Total N |    | 1       | 1      | 1      |
| 63 | 1       | 63 | .69041  | .00277 | .00388 |
|    | Total N |    | 1       | 1      | 1      |
| 64 | 1       | 64 | 3.84825 | .03655 | .02162 |
|    | Total N |    | 1       | 1      | 1      |
| 65 | 1       | 65 | 2.20974 | .00000 | .01241 |
|    | Total N |    | 1       | 1      | 1      |
| 66 | 1       | 66 | 2.58601 | .00338 | .01453 |
|    | Total N |    | 1       | 1      | 1      |
| 67 | 1       | 67 | .21890  | .00018 | .00123 |
|    | Total N |    | 1       | 1      | 1      |
| 68 | 1       | 68 | 1.20561 | .00218 | .00677 |
|    | Total N |    | 1       | 1      | 1      |
| 69 | 1       | 69 | .23019  | .00002 | .00129 |
|    | Total N |    | 1       | 1      | 1      |
| 70 | 1       | 70 | 2.60370 | .00026 | .01463 |
|    | Total N |    | 1       | 1      | 1      |

| 71 | 1       | 71 | 4.07075 | .00123 | .02287 |
|----|---------|----|---------|--------|--------|
|    | Total N |    | 1       | 1      | 1      |
| 72 | 1       | 72 | .18189  | .00070 | .00102 |
|    | Total N |    | 1       | 1      | 1      |
| 73 | 1       | 73 | 3.39609 | .00065 | .01908 |
|    | Total N |    | 1       | 1      | 1      |
| 74 | 1       | 74 | 2.07663 | .00224 | .01167 |
|    | Total N |    | 1       | 1      | 1      |
| 75 | 1       | 75 | 1.23303 | .00314 | .00693 |
|    | Total N |    | 1       | 1      | 1      |
| 76 | 1       | 76 | 1.46367 | .00818 | .00822 |
|    | Total N |    | 1       | 1      | 1      |
| 77 | 1       | 77 | 2.24372 | .00213 | .01261 |
|    | Total N |    | 1       | 1      | 1      |
| 78 | 1       | 78 | .97514  | .00421 | .00548 |
|    | Total N |    | 1       | 1      | 1      |
| 79 | 1       | 79 | .48700  | .00074 | .00274 |
|    | Total N |    | 1       | 1      | 1      |
| 80 | 1       | 80 | 4.35433 | .00472 | .02446 |
|    | Total N |    | 1       | 1      | 1      |
| 81 | 1       | 81 | 3.40694 | .00794 | .01914 |
|    | Total N |    | 1       | 1      | 1      |
| 82 | 1       | 82 | .36359  | .01186 | .00204 |
|    | Total N |    | 1       | 1      | 1      |

| SEEKING DE |         | los |         | 100010 | l 00400 I  |
|------------|---------|-----|---------|--------|------------|
| 83         | 1       | 83  | .21890  | .00018 | .00123     |
|            | Total N |     | 1       | 1      | 1          |
| 84         | 1       | 84  | .83739  | .00481 | .00470     |
|            | Total N |     | 1       | 1      | 1          |
| 85         | 1       | 85  | .27899  | .00026 | .00157     |
|            | Total N |     | 1       | 1      | 1          |
| 86         | 1       | 86  | .34990  | .00024 | .00197     |
|            | Total N |     | 1       | 1      | 1          |
| 87         | 1       | 87  | .15344  | .00005 | .00086     |
|            | Total N |     | 1       | 1      | 1          |
| 88         | 1       | 88  | 2.58719 | .00809 | .01453     |
|            | Total N |     | 1       | 1      | 1          |
| 89         | 1       | 89  | 3.94245 | .00019 | .02215     |
|            | Total N |     | 1       | 1      | 1          |
| 90         | 1       | 90  | .05398  | .00014 | .00030     |
|            | Total N |     | 1       | 1      | 1          |
| 91         | 1       | 91  | .15647  | .00939 | .00088     |
|            | Total N |     | 1       | 1      | 1          |
| 92         | 1       | 92  | 1.63880 | .00236 | .00921     |
|            | Total N |     | 1       | 1      | 1          |
| 93         | 1       | 93  | .69172  | .00228 | .00389     |
|            | Total N |     | 1       | 1      | 1          |
| 94         | 1       | 94  | 3.24602 | .00088 | .01824     |
|            | Total N |     | 1       | 1      | 1          |
|            |         |     | 1       | 1      | ı <b>.</b> |

| 95  | 1         | 95  | 1.32747     | .00161      | .00746 |  |
|-----|-----------|-----|-------------|-------------|--------|--|
|     | Total N   |     | 1           | 1           | 1      |  |
| 96  | 1         | 96  | 1.02862     | .00115      | .00578 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 97  | 1         | 97  | 5.18877     | .00017      | .02915 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 98  | 1         | 98  | .72814      | .00384      | .00409 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 99  | 1         | 99  | .69041      | .00062      | .00388 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 100 | 1         | 100 | .09370      | .00017      | .00053 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 101 | 1         | 101 | 3.21026     | .00397      | .01804 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 102 | 1         | 102 | 5.88257     | .01073      | .03305 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 103 | 1         | 103 | .36359      | .00803      | .00204 |  |
|     | Total N   |     | 1           | 1           | 1      |  |
| 104 | 1<br>T    | 104 | .90584      | .00001      | .00509 |  |
| 105 | Total N   | 105 | 1           | 1           | 1      |  |
| 105 | 1 Total N | 105 | .62459      | .00109      | .00351 |  |
| 106 | Total N 1 | 106 | 1<br>.28739 | 1<br>.00177 | .00161 |  |
| 100 | Total N   | 100 | 1           | 1           | 1      |  |
|     | IVIAI IN  |     | *           | *           | *      |  |

| 107 | 1       | 107 | .03362  | .00032 | .00019 |
|-----|---------|-----|---------|--------|--------|
|     | Total N |     | 1       | 1      | 1      |
| 108 | 1       | 108 | 1.26714 | .00332 | .00712 |
|     | Total N |     | 1       | 1      | 1      |
| 109 | 1       | 109 | .91422  | .00766 | .00514 |
|     | Total N |     | 1       | 1      | 1      |
| 110 | 1       | 110 | 3.74376 | .00768 | .02103 |
|     | Total N |     | 1       | 1      | 1      |
| 111 | 1       | 111 | 3.00422 | .00165 | .01688 |
|     | Total N |     | 1       | 1      | 1      |
| 112 | 1       | 112 | 1.20861 | .00051 | .00679 |
|     | Total N |     | 1       | 1      | 1      |
| 113 | 1       | 113 | 3.03170 | .00310 | .01703 |
|     | Total N |     | 1       | 1      | 1      |
| 114 | 1       | 114 | .83916  | .00150 | .00471 |
|     | Total N |     | 1       | 1      | 1      |
| 115 | 1       | 115 | 4.13544 | .06160 | .02323 |
|     | Total N |     | 1       | 1      | 1      |
| 116 | 1       | 116 | 2.96784 | .00039 | .01667 |
|     | Total N |     | 1       | 1      | 1      |
| 117 | 1       | 117 | .21499  | .00004 | .00121 |
|     | Total N |     | 1       | 1      | 1      |
| 118 | 1       | 118 | .23406  | .00384 | .00131 |
|     | Total N |     | 1       | 1      | 1      |

| 119 | 1       | 119 | .17412  | .00031 | .00098 |
|-----|---------|-----|---------|--------|--------|
|     | Total N |     | 1       | 1      | 1      |
| 120 | 1       | 120 | .46356  | .00339 | .00260 |
|     | Total N |     | 1       | 1      | 1      |
| 121 | 1       | 121 | .68418  | .00408 | .00384 |
|     | Total N |     | 1       | 1      | 1      |
| 122 | 1       | 122 | 2.13458 | .00248 | .01199 |
|     | Total N |     | 1       | 1      | 1      |
| 123 | 1       | 123 | 1.87062 | .00053 | .01051 |
|     | Total N |     | 1       | 1      | 1      |
| 124 | 1       | 124 | .65728  | .00060 | .00369 |
|     | Total N |     | 1       | 1      | 1      |
| 125 | 1       | 125 | 4.03023 | .00351 | .02264 |
|     | Total N |     | 1       | 1      | 1      |
| 126 | 1       | 126 | .86477  | .00541 | .00486 |
|     | Total N |     | 1       | 1      | 1      |
| 127 | 1       | 127 | 1.08464 | .01226 | .00609 |
|     | Total N |     | 1       | 1      | 1      |
| 128 | 1       | 128 | .05398  | .00285 | .00030 |
|     | Total N |     | 1       | 1      | 1      |
| 129 | 1       | 129 | .84329  | .00106 | .00474 |
|     | Total N |     | 1       | 1      | 1      |
| 130 | 1       | 130 | 1.77772 | .00548 | .00999 |
|     | Total N |     | 1       | 1      | 1      |

| 131 | 1       | 131 | 1.09151 | .01032 | .00613 |
|-----|---------|-----|---------|--------|--------|
|     | Total N |     | 1       | 1      | 1      |
| 132 | 1       | 132 | 1.82953 | .01265 | .01028 |
|     | Total N |     | 1       | 1      | 1      |
| 133 | 1       | 133 | 9.51553 | .00638 | .05346 |
|     | Total N |     | 1       | 1      | 1      |
| 134 | 1       | 134 | 9.43233 | .04258 | .05299 |
|     | Total N |     | 1       | 1      | 1      |
| 135 | 1       | 135 | 1.62630 | .00435 | .00914 |
|     | Total N |     | 1       | 1      | 1      |
| 136 | 1       | 136 | 1.12215 | .00058 | .00630 |
|     | Total N |     | 1       | 1      | 1      |
| 137 | 1       | 137 | .09370  | .00006 | .00053 |
|     | Total N |     | 1       | 1      | 1      |
| 138 | 1       | 138 | 3.21566 | .00018 | .01807 |
|     | Total N |     | 1       | 1      | 1      |
| 139 | 1       | 139 | .42453  | .00214 | .00238 |
|     | Total N |     | 1       | 1      | 1      |
| 140 | 1       | 140 | .90584  | .01115 | .00509 |
|     | Total N |     | 1       | 1      | 1      |
| 141 | 1       | 141 | 1.37123 | .00007 | .00770 |
|     | Total N |     | 1       | 1      | 1      |
| 142 | 1       | 142 | 1.44934 | .00468 | .00814 |
|     | Total N |     | 1       | 1      | 1      |

| 143 | 1       | 143 | .39994  | .00000         | .00225 |
|-----|---------|-----|---------|----------------|--------|
|     | Total N |     | 1       | <br>  <b>1</b> | 1      |
| 144 | 1       | 144 | 1.82953 | .00002         | .01028 |
|     | Total N |     | 1       | 1              | 1      |
| 145 | 1       | 145 | 3.46048 | .00294         | .01944 |
|     | Total N |     | 1       | 1              | 1      |
| 146 | 1       | 146 | 2.20974 | .00166         | .01241 |
|     | Total N |     | 1       | 1              | 1      |
| 147 | 1       | 147 | .28739  | .00033         | .00161 |
|     | Total N |     | 1       | 1              | 1      |
| 148 | 1       | 148 | 1.18618 | .00029         | .00666 |
|     | Total N |     | 1       | 1              | 1      |
| 149 | 1       | 149 | .25693  | .00039         | .00144 |
|     | Total N |     | 1       | 1              | 1      |
| 150 | 1       | 150 | 2.13101 | .00000         | .01197 |
|     | Total N |     | 1       | 1              | 1      |
| 151 | 1       | 151 | .39934  | .00847         | .00224 |
|     | Total N |     | 1       | 1              | 1      |
| 152 | 1       | 152 | .21890  | .00048         | .00123 |
|     | Total N |     | 1       | 1              | 1      |
| 153 | 1       | 153 | 1.94695 | .01045         | .01094 |
|     | Total N |     | 1       | 1              | 1      |
| 154 | 1       | 154 | 1.06874 | .00002         | .00600 |
|     | Total N |     | 1       | 1              | 1      |

|     | EHAVIOUR |     | 1       | i      | ı      |  |
|-----|----------|-----|---------|--------|--------|--|
| 155 | 1        | 155 | .49590  | .00127 | .00279 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 156 | 1        | 156 | .26200  | .00101 | .00147 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 157 | 1        | 157 | 1.20861 | .00147 | .00679 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 158 | 1        | 158 | .49408  | .00219 | .00278 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 159 | 1        | 159 | .71339  | .00000 | .00401 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 160 | 1        | 160 | .36359  | .00220 | .00204 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 161 | 1        | 161 | .68721  | .00042 | .00386 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 162 | 1        | 162 | 7.32897 | .05494 | .04117 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 163 | 1        | 163 | .03362  | .00032 | .00019 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 164 | 1        | 164 | .98747  | .01143 | .00555 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 165 | 1        | 165 | 3.75468 | .01973 | .02109 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
| 166 | 1        | 166 | 2.57145 | .00578 | .01445 |  |
|     | Total N  |     | 1       | 1      | 1      |  |
|     |          | •   | I       | I      | 1      |  |

| 167 | 1       | 167 | 3.33543  | .01884 | .01874 |
|-----|---------|-----|----------|--------|--------|
|     | Total N |     | 1        | 1      | 1      |
| 168 | 1       | 168 | 15.54082 | .07298 | .08731 |
|     | Total N |     | 1        | 1      | 1      |
| 169 | 1       | 169 | .98751   | .02352 | .00555 |
|     | Total N |     | 1        | 1      | 1      |
| 170 | 1       | 170 | .36359   | .00275 | .00204 |
|     | Total N |     | 1        | 1      | 1      |
| 171 | 1       | 171 | 1.63112  | .00240 | .00916 |
|     | Total N |     | 1        | 1      | 1      |
| 172 | 1       | 172 | 1.32124  | .00097 | .00742 |
|     | Total N |     | 1        | 1      | 1      |
| 173 | 1       | 173 | 3.83745  | .02549 | .02156 |
|     | Total N |     | 1        | 1      | 1      |
| 174 | 1       | 174 | .82959   | .00066 | .00466 |
|     | Total N |     | 1        | 1      | 1      |
| 175 | 1       | 175 | 1.65434  | .00076 | .00929 |
|     | Total N |     | 1        | 1      | 1      |
| 176 | 1       | 176 | 7.38170  | .11304 | .04147 |
|     | Total N |     | 1        | 1      | 1      |
| 177 | 1       | 177 | .55251   | .00013 | .00310 |
|     | Total N |     | 1        | 1      | 1      |
| 178 | 1       | 178 | 7.32897  | .00003 | .04117 |
|     | Total N |     | 1        | 1      | 1      |

| 179   | 1       | 179 | .11515 | .00055 | .00065 |
|-------|---------|-----|--------|--------|--------|
|       | Total N |     | 1      | 1      | 1      |
| Total | N       |     | 179    | 179    | 179    |

a. Limited to first 200 cases.

#### **Appendix D: Ethical Clearance Letter**



Re: U/SERC/326/2023

21 December 2023

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

Dear Dr Pung,

#### Ethical Approval For Research Project/Protocol

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

The details of the research projects are as follows:

| No | Research Title  | Student's Name  | Supervisor's Name | Approval Validity                      |
|----|---|---|-------------------|--|
| 1. | Dark Triad Personality and Public Acceptance of<br>Homosexuals Among Malaysian Adults:<br>Interdependent Self-Construal as a Moderator            | Muriel Wong Jie     Chee     See Tong Shin            | Dr Tan Soon Aun   |  |
| 2. | Mating Orientation and Dark Triad Personality on<br>Sexting Behaviour: A Comparative Study Between<br>Male and Female Emerging Adults in Malaysia | Lee Yih Wen     Tong Kher Sze                         | Dr Ian Soon Aun   |  |
| 3. | Relationship Between Public Mental Health Stigma,<br>Mental Health Literacy, and Help-seeking<br>Behaviour Among Adults in Malaysia               | Chan Ming Chen     Chew Jia Xin     Lilian Soh Li-Ern |                   | 21 December 2023 –<br>20 December 2024 |
| 4. | The Relationship Between Fear of Missing, Social<br>Media Flow Experience and Social Media Addiction<br>Among University Students in Malaysia     | Ng Jing Wen     See Rou Yee     Vooi Hao Zheng        | Dr Ooh Seow Ling  |  |
| 5. | Relationship Between Intolerance of Uncertainty,<br>Mindfulness, and Social Anxiety   | Ch'ng Zer Swen     Wong Jin Yau     Yaw Suet Kuan     |                   |  |

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

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