THE MEDIATING ROLE OF SELF-STIGMA IN PERCEIVED PUBLIC STIGMA AND
ATTITUDES TOWARD MENTAL HEALTH HELP-SEEKING
AMONG UNIVERSITY STUDENTS IN MALAYSIA

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The Mediating Role of Self-Stigma in Perceived Public Stigma and

Attitudes toward Mental Health Help-Seeking

among University Students in Malaysia

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Approval Form

This research paper attached here, entitled "The Mediating Role of Self-Stigma in Perceived Public Stigma and Attitudes toward Mental Health Help-Seeking among University Students in Malaysia" prepared and submitted by "EUI CHING SIE and TAN WEI HONG" in partial fulfilment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

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Abstract

The number of cases related to poor mental health is rising dramatically in Malaysia. Stigma and discrimination related to mental illness has become a major barrier for those living with mental health issues to seek psychological treatment. Therefore, this study is aimed to investigate the mediating effect of self-stigma between perceived public stigma and help-seeking attitudes. A quantitative cross-sectional research and convenience sampling method was adopted to recruit 555 university students from private and public university in Malaysia. The questionnaire distributed consisted of four sections, which include Social Stigma of Receiving Psychological Help (SSRPH), Self-stigma of Seeking Help (SSOSH) and Attitudes toward Seeking Professional Psychological Help Scale - Short Form (ATSPPHS-SF), and demographic information. The results obtained from multiple linear regression indicated perceived public stigma negatively predicted the help-seeking attitudes. Moreover, the findings also stated that self-stigma negatively predicted the attitudes toward mental health help-seeking. As expected, self-stigma plays a mediating role between the relationship of perceived public stigma and help-seeking attitudes. This research provides the latest statistic to mental health field by filling in the knowledge gap and also serves as a reference in planning mental health awareness campaign in order to increase public's help-seeking attitudes.

Keywords: perceived public stigma, self-stigma, help-seeking attitudes

Declaration

We hereby declare that the report entitled "The Mediating Role of Self-Stigma in Perceived Public Stigma and Attitudes toward Mental Health Help-Seeking among University Students in Malaysia" submitted is written by us and is our own effort and no part has been plagiarized without citations.

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Chapter I

Introduction

Background of Study

As Malaysia modernize over the years, life becomes more complex and issues related to economic, cultural, and social development have arisen. People who are staying in the metropolitan cities frequently strives to adapt to the rapid pace of change in relation to the fast growth of the country, and they usually face high level of stress and tension in the school, at their workplace, and also in the society. These often lead to more complex health concerns, which include mental health problems (Yeap & Low, 2009). According to Mustapha (2016), depression is affecting around 121 million people around the world and it is expected to be a major mental health illness after heart disease by 2020. Therefore, Indramalar (2018) highlighted that attaining better mental health is listed as one of the key aspects in National Mental Health Strategic Action Plan 2016-2020

Mental health is being defined by World Health Organisation (WHO) as a state of well-being in which the individual is being aware of his or her own abilities and able to deal with the typical life-stressors, work optimally and also make contribution to his or her community (WHO, 2001). In other words, mental health involves searching for a balance in all life aspects, which include physical, mental, emotional and spiritual. However, in Malaysia, mental health is being defined by the Ministry of Health (1997) as the ability of the individual, the groups, and the environment, to interact with each other to promote subjective well-being, optimal functioning, and the use of affective, cognitive and relational abilities, in order to achieve the individual and collective goals adhere to justice. From the definition by the Ministry of Health Malaysia, it shows a more collective nature in Malaysia whereby each ethnic group provides trust and social support to each other and always being kind and

generous towards those who are in need (Deva, 2004). This is the uniqueness of Malaysia which is related to the multicultural society.

The importance of mental health is being emphasized by WHO. In WHO's Mental Health Action Plan 2013-2020, WHO (2013) stated that its vision is to have a world in which mental health is being emphasized, mental disorders are being prevented, and those who are living with mental disorders are able to gain high quality health and social care in order to stay healthy and work in an environment which is free from stigmatization and discrimination. In other words, the overall goal of WHO is to improve mental well-being, prevent mental disorders in the society, provide essential care to those living with mental disorders, and promote human rights among them.

The stigma towards mental illness and treatment-seeking behaviour has been identified as one of the most common reasons that people avoid seeking mental health services (Corrigan, 2004). According to Vogel, Wade, and Haake (2006), the stigma associated with mental health services is the socially undesirable or unacceptable perception towards an individual who seeks psychological help. It is undeniable that the stigma towards mental health help-seeking has a negative impact on people's attitudes to seek help and it leads to more and more people do not seek help even though they are experiencing mental health problems. Systematic reviews also reported that stigma related to mental health issues reduces help-seeking behaviour (Clement et al., 2015; Schnyder, Panczak, Groth, & Schultze-Lutter, 2017). According to Rashid (2018), people who are suffering from mental health issues are often being blamed of being "weak" or "over-dramatic" instead of being given proper help. This is probably due to mental health issues are usually not treated in the same way as important as physical health in Malaysia. Therefore, it is clear that stigma related to mental health help-seeking has a negative impact on people's attitudes to seek help.

There are two types of stigma that affect an individual's attitudes seek help, which are public stigma and self-stigma. According to Corrigan (2004), public stigma refers to the perception held by the society in which an individual is socially unacceptable to seek help while self-stigma refers to the perception held by an individual in which he or she is socially unacceptable to seek help. Public stigma is often harmful as it causes prejudice, stereotypes, and discrimination against those who seek psychological help (Corrigan, 2004). According to Corrigan and Matthews (2003), an individual may hide psychological concerns and avoid seeking treatment to reduce the harmful consequences of public stigma. Meanwhile, self-stigma may reduce the individual's self-esteem if he or she seeks any psychological help (Vogel et al., 2006). In other words, an individual may internalize the negative perception held by the society towards seeking mental health services and he or she may perceive himself or herself as weak and inferior. Consequently, he or she may just decide not to seek mental health services in order to maintain his or her positive image.

According to a study by Vogel et al. (2006), self-stigma was conceptually different from other related constructs, namely public stigma and self-esteem, which suggesting that self-stigma is unique in predicting help-seeking attitudes. It was an interesting finding that the predictive role of perceived public stigma towards help-seeking attitudes was reduced when self-stigma was entered into the model (Vogel et al., 2006). In other words, self-stigma may play a role between perceived public stigma and attitudes toward help-seeking behaviour.

Apart from that, there are cultural differences in help-seeking attitudes among people from individualistic and collectivistic culture. In individualistic culture such as United States, an individual is more likely to seek help due to the cultural values of the mainstream that promote help-seeking behaviour (Kim, 2007). However, in collectivistic culture such as East Asia, an individual will be viewed as bringing shame to the family if he or she discloses his problem to an out-group, including friends and mental health professionals (Mojaverian,

Hashimoto, & Kim, 2013). He or she would prefer to deal with mental health issues by himself or herself instead of seeking mental health services due to the stigma related to mental illness. In Asian cultural context, an individual with mental health problems usually being viewed as a potential disruption to family balance, in which it may cause the entire family to involve in taking care of the individual, and hence, it is a family decision to seek help rather than a personal decision (Lin & Cheung, 1999). In other words, seeking professional help in Asian cultural contexts might involve both the individual and the in-group. In short, people from collectivistic cultures might be less willing to seek help as compared to those from individualistic cultures.

Therefore, in this study, it is important to examine the role of perceived public stigma and self-stigma in predicting help-seeking attitudes and also take into consideration the role of self-stigma in examining whether it mediates between perceived public stigma and attitudes towards mental health help-seeking among university students in Malaysia context.

Problem Statement

In Malaysia, the number of cases related to poor mental health is rising dramatically. According to Ministry of Health Malaysia (2015), the findings of National Health and Morbidity Survey 2015 showed that there was an increasing trend in the prevalence of mental health problems among Malaysian adults aged 16 and above from 10.7% in 1996 to 29.2% in 2015, which is about 4.2 million of the Malaysian population. In other words, one in every three adults in Malaysia suffers from mental health issues. Besides, females were found to have slightly higher prevalence than males, in which 30.8% of females had mental health problems as compared to 27.6% of males, but the difference was not significant. In addition, the prevalence of mental health problems were the highest among younger adults aged 16 to

19 with a prevalence rate of 34.7%, and followed by aged 20 to 25 with a prevalence rate of 32.1% (Ministry of Health Malaysia, 2015).

However, statistics regarding mental health issues are usually downplayed due to the stigma that surrounds the individual living with mental health concerns (Relate Malaysia, 2018). According to Nokman (2018), the stigma and discrimination related to mental illness has become a major barrier for those living with mental health issues to seek psychological treatment and Ministry of Health also face difficulties to reach out to them. It was common for the public to make derogatory remarks when they passed by a psychiatric ward due to their negative perception towards mental illness (Nokman, 2018). Consequently, the patients living with mental illness would feel stressful and pressured, and hence, causing their mental health problems even worse.

Mental health problems are serious issue that need to be addressed urgently in order to reduce depression and suicide cases. Nowadays, university students face many challenges. Apart from taking care of themselves and being independently, they also have to cope with academic stress and plan for their future careers. As they usually have high expectations toward their academic achievement, this has placed them under a very stressful living environment, and it would be risky to their physical and mental health if they unable to find ways to cope with the stress as it may predispose them to depression (Shamsuddin et al., 2013). Thus, it is important for those with poor mental health to seek help.

Although there are increased counselling services provided in schools, in colleges and universities, and also in the public, many students who faced psychological and mental health concerns still do not consider seeking professional help to resolve their problems (Salim, 2010). It is undeniable that many Malaysian students in higher education institutions, which including colleges and universities, underutilized available counselling services despite high needs. According to Salim (2010), one of the most important barriers that prevent them from

seeking help is they hold negative views and stigma towards psychological help as they would feel ashamed when seeking psychological help.

Apart from that, there are some inconsistent findings in the past studies. According to Vogel, Wade, and Hackler (2007), self-stigma fully mediated between perceived public stigma and attitudes toward psychological help-seeking as perceived public stigma was found to have indirect effect toward help-seeking attitudes. It is supported by modified labelling theory in which self-stigma plays a role between perceived public stigma and help-seeking attitudes. However, it was contradicted the findings of the study conducted by Ina and Morita (2015), in which they found that perceived public stigma towards professional help-seeking did not associated with help-seeking attitudes because the decision to seek mental help is determined by the help-seeking benefits, such as lower cost of treatment given. Besides, there is a strong relationship found between help-seeking attitudes and significant others such as family members rather than the public (Ina & Morita, 2015).

Therefore, this study is conducted to validate the results of past studies regarding the mediating role of self-stigma between perceived public stigma and attitudes towards mental health help-seeking among university students in Malaysia context.

Significance of Study

Stigma can be one of the barriers that people with mental health issues do not seek help from professionals until their present symptoms getting more severe (Parle, 2012). They might disengage from the therapeutic interventions or just stop taking medication, and this can lead to relapse of symptoms and delay their recovery process. Therefore, by gaining understanding of how self-stigma plays a role in relationship between perceived public stigma and attitudes toward seeking help, policy makers, university administrators, as well as public health workers can identify the barriers that prevent university students from seeking

mental health aids and hence, able to provide interventions to help the university students to change their perceptions towards mental health issues and seek help if they needed.

Besides, by conducting this study, the researchers and the practitioners able to obtain accurate statistical evidences from the results of this study to draw an effective intervention programme, which would be able to reduce the self-stigma and increase the mental health help-seeking attitudes among university students in Malaysia. The intervention programme could be developed to help those facing mental health issues to seek help and avoid further deterioration of their current condition, which may indirectly reduce the risk of committing suicide. This would be part under practical contribution of the study.

In addition, by conducting this study, it would able to fill in the knowledge gap of our society about mental health. In Malaysia, there was lack of researches examining mental health because most studies were conducted in Western countries. Therefore, this study serves as an additional research whereby it provides the accurate statistical evidence from the data collected among university students in Malaysia. As a result, the knowledge gap regarding mental health would be reduced.

Furthermore, by conducting this study, it would able to validate the result of the previous researches by providing the latest statistics of the mental health help-seeking attitudes among university students in Malaysia. Consequently, university students will be more aware about it and get involved in the intervention programme to reduce their stigma regarding mental health issues. This study also serves as the latest research for future reference.

Purpose of Study

This study aims to understand the respective role of perceived public stigma and self-stigma in attitudes towards mental health help-seeking, and the role of self-stigma in

mediating the relationship between perceived public stigma and attitudes towards mental health help-seeking among university students in Malaysia. Besides, this research study also works towards increasing the awareness of the public towards mental health. As there were only few studies that had been carried out to examine the attitudes towards mental health help-seeking in Malaysia context, this research able to provide the latest information for future research regarding mental health help-seeking attitudes and able to aid in creating an equal and friendly environment for people living with mental health concerns.

Research Objectives

In this study, the research objectives are listed as follows:

1. To examine the effect of perceived public stigma on the attitudes towards mental health help-seeking.

2. To examine the effect of self-stigma on the attitudes towards mental health help-seeking.

3. To examine the mediating role of self-stigma between perceived public stigma and the attitudes towards mental health help-seeking.

Research Questions

In this study, there are specific research questions as follows:

1. Does perceived public stigma negatively predict attitudes toward mental health help-seeking?

2. Does self-stigma negatively predict attitudes toward mental health help-seeking?

3. Does self-stigma plays a mediating role between perceived public stigma and the attitudes toward mental health help-seeking?

Research Hypotheses

Research hypothesis 1: Perceived public stigma can negatively predict the attitudes toward mental health help-seeking indirectly.

Past study by Vogel et al. (2007) found that perceived public stigma does not directly predict help-seeking attitudes as it only accounted 57% of the variance in help-seeking attitudes. Similar result is found in Topkaya's (2014) study, in which public stigma is significantly negatively and weakly associated with psychological help-seeking attitudes.

Research hypothesis 2: Self-stigma can negatively predict the attitudes toward mental health help-seeking.

Past research by Topkaya (2014) found that self-stigma toward mental health service significantly predicted psychological help-seeking attitudes. The finding is consistent with Valley, Cody, Albloshi, and Alsheraifi (2018) which demonstrated high level of self-stigma significantly predict decreased positive attitudes toward help-seeking. Besides, self-stigma towards mental illness also negatively predicted the attitude of student-athletes to seek for mental help (Goodwin, 2017).

Research hypothesis 3: Self-stigma can mediate between perceived public stigma and the attitudes toward mental health help-seeking.

Past research conducted by Vogel et al. (2007) among psychology students found that self-stigma fully mediated between perceived public stigma and attitudes toward psychological help seeking. Similar results are found in the studies by Valley et al. (2018) and Vogel, Shechtman, and Wade (2010) in which there is a significant mediated pathway from public stigma towards mental illness to help-seeking attitudes through self-stigma.

Conceptual Definitions

  Perceived public stigma. Stigma towards mental illness is the social devaluation, negative attitudes and disapproval towards an individual with mental illness or those who seek help from mental health professional (Corrigan & Watson, 2006). Public stigma is defined as the society perception towards an individual being socially unacceptable (Vogel et al., 2006). In terms of public stigma associated with seeking mental health service, those who seek psychological treatment is often perceived as undesirable and socially unacceptable (Corrigan, 2004). It is also being explained as negative stereotypes and prejudice believed by people in a community.

  Self-stigma. Self-stigma is a decrease in one's self-esteem, self-efficacy and self-worth as he or she viewed himself or herself as being not acceptable by the society (Corrigan, 2004). According to Link (1987), self-stigma is defined as the internalization of public stigma. Besides, Wade et al. (2015) defined self-stigma as the perception held by the individual that he or she is socially undesirable for seeking mental help. This is because individuals who seek for mental health care often believed that they are less valued due to their mental health disorder (Corrigan, 2004). For instance, they would internalize themselves as incompetent because they are mentally ill.

  Attitudes toward mental health help-seeking. According to Greenwald and Banaji (1995), attitudes are enduring systems of favourable and unfavourable evaluations towards social objects such as people and places. Attitudes are shaped by behavioural beliefs, which refer to the belief about the outcome of help-seeking behaviour (Surapaneni, 2015). Attitude towards help-seeking is an evaluative reaction to seek or resist mental health services for psychological distress (Fischer & Turner, 1970; Mackenzie, Knox, Gekoski, & Macaulay, 2004). For instance, some individuals may approach the mental health services willingly and openly and some might view getting psychological help is a sign of weakness and failure

(Fischer & Turner, 1970). It is also the intention to look for professional psychological help when someone is feeling psychologically discomfort (Fischer & Farina, 1995).

Operational Definitions

        Perceived public stigma. In this research, perceived public stigma is being described as the individual's perception towards the stigma held by the society regarding of the prejudice, stereotypes and discrimination towards mentally ill individual (Corrigan, 2004). In order to measure perceived public stigma towards accepting mental health professional help, Social Stigma of Receiving Psychological Help (SSRPH) is distributed among university students in Malaysia. SSRPH constructed by Komiya, Good, and Sherrod (2000) is a four-point Likert-type scale that consists of five items. If the individual gets a high score, it indicates that his or her perceived public stigma is higher towards receiving mental health services. One sample item in SSRPH is "Seeing a psychologist for emotional or interpersonal problems carries social stigma".

        Self-stigma. In the study, self-stigma refers to the internalization of public stigma by accepting the negative attitudes from public towards them (Link, 1987; Picco et al., 2017). To examine university students' self-stigma towards seeking mental health professional help, Self-Stigma of Seeking Help (SSOSH) is distributed to them. The scale is developed by Vogel et al. (2006) and it is a five-point Likert-type scale that consists of ten items. If the individual scores high on the scale, it indicates the individual would have more negative stigma toward seeking mental health help (Vogel et al., 2006). One sample item in SSOSH includes "If I went to a therapist, I would be less satisfied with myself".

        Attitudes toward mental health help-seeking. In the study, attitudes toward mental health help-seeking are being understood as the evaluation reaction towards mental health help-seeking, either positively or negatively (Fischer & Turner, 1970). This variable is tested

using Attitudes toward Seeking Professional Psychological Help Scale: Short Form

(ATSPPHS-SF). This questionnaire was developed by Fischer and Farina (1995) and it is a

four-point Likert-type scale that consists of ten items. The higher the score obtained from this

scale, the more favourable attitude toward mental help-seeking (Fischer & Farina, 1995). One

sample item in ATSPPHS is "I might want to have psychological counselling in the future".

Chapter Summary

      In conclusion, the rising number of mental health problems in Malaysia has brought

great concern to us because attaining better mental health is being emphasized in National

Mental Health Strategic Action Plan 2016-2020. Besides, stigma associated with mental

illness and treatment-seeking behaviour has been identified as one of the most common

reasons people did not seek mental health services. Therefore, our research is aimed to study

the mediating effect of self-stigma towards help-seeking between perceived public stigma

towards seeking mental health services and help-seeking attitudes among university students

in Malaysia.

Chapter II

Literature Review

Introduction

This chapter discussed all the variables studied under this research. Next, various past literature on the effect of perceived public stigma and self-stigma on attitudes toward mental health help-seeking, and the mediating role of self-stigma between perceived public stigma and attitudes toward mental health help-seeking were also reviewed. Lastly, both theoretical and conceptual frameworks were presented at the end of the chapter.

Attitudes toward Mental Health Help-Seeking

People's attitudes toward mental health help-seeking also frame how they express their psychological distress and seek care from professional (Centers for Disease Control and Prevention et al., 2012). Attitudes toward mental illness are constructed by personal understanding or awareness about mental illness, cultural stigma or communicate with someone with mental illness. When the attitudes are expressed positively, it would result in supportive behaviour, such as willingness to seek help from mental health professional (Centers for Disease Control and Prevention et al., 2012). Pheko, Chilisa, Balogun, and Kgathi (2013) also mentioned that individuals with negative attitude toward help-seeking would result in lower intentions to seek mental health care services.

Perceived Public Stigma

Perceived public stigma occurs when the individual started to be aware of public stigma (Eisenberg, Downs, Golberstein, & Zivin, 2009). According to Corrigan (2004), perceived public stigma is referred as an individual's perspective towards public stigma. For instance, they would perceive others viewing themselves as weak and dangerous, which in

need of others to take care and pay more attention to themselves (Pasupuleti, 2013). Pedersen and Paves (2014) conducted the study among young adult and the result showed that young adult male have greater perceived public stigma towards mental illness. Nearchou et al. (2018) explained perceived public stigma as an individual's perspective of the negative behaviour, such as stereotypes and prejudices, that illustrated by most of the members in the society. Corrigan (2004) stated that perceived public stigma often leads to some negative impact in general health care system as it brings stereotype, prejudice and discrimination to the individual who seek help from mental health professional.

Self-Stigma

Eisenberg et al. (2009) mentioned that self-stigma occurs when the individuals grouped themselves as stigmatized group or mentally ill group, and applies stereotypes and prejudice towards themselves. According to Cheng, Wang, McDermott, Kridel, and Rislin (2018), self-stigma towards seeking mental health service is explained as seeking mental health help is a potential threat to personal self-worth because it may lead to negative attitude from the society. Picco et al. (2017) refers self-stigma as the process of internalization by accepting the negative attitudes from public towards them. Vogel et al. (2006) stated that self-stigma is a more proximal indicator and important predictor of attitudes toward mental health help-seeking and intention.

Perceived Public Stigma and Attitudes towards Mental Health Help-Seeking

Vogel et al. (2007) has conducted a cross-sectional study among psychology students at Midwestern University with the aim of examine the mediating effect of self-stigma and help-seeking attitudes on the link between perceived public stigma and intention to seek mental health services. A total of 680 respondents participated in the study. The finding

showed that perceived public stigma is not a direct predictor toward help-seeking attitudes as it only accounted 57% of the variance in help-seeking attitudes (Vogel et al, 2007). Therefore, perceived public stigma is not directly affecting the attitudes toward mental help-seeking.

Based on the research done by Topkaya (2014), the results stated that there is a significant negative weak relationship between public stigma and mental health help-seeking attitudes. Although there is a significant relationship between public stigma towards seeking mental help services and help-seeking attitudes, public stigma is not a significant predictor of attitudes toward mental help-seeking (Topkaya, 2014). Thus, it also showed a similar result with previous studies by stating public stigma do not predict help-seeking attitudes.

However, there is an inconsistent finding in Ina and Morita's (2015) studies with previous studies. Based on the correlation analysis, it stated that there is no association between perceived public stigma toward seeking professional help and attitudes toward help-seeking. The possible explanation towards this finding is the decision of seeking mental help is determined by the help-seeking benefits, such as lower cost. Also, help-seeking attitudes are more strongly associated with significant others such as family members than the public (Ina & Morita, 2015). Therefore, there is no relationship found between perceived public stigma and help-seeking attitudes.

Self-Stigma and Attitudes towards Mental Health Help-Seeking

Pattyn, Verhaeghe, Sercu, and Bracke (2014) researched on stigma on mental illness associate with attitudes toward help-seeking among Belgian population. Results showed that self-stigma is associated with the attitudes of help-seeking from psychiatrist. Respondents with lower level of self-stigma would have positive help-seeking attitudes from general practitioners and psychiatrists (Pattyn et al., 2014). The result is also similar with the study by Sullivan and Mancillas (2015) which reported among 104 participants that self-stigma

towards psychological help-seeking is correlated with more negative attitudes towards seeking mental health professions.

According to the research by Topkaya (2014) in examining the role of stigma associated with help-seeking attitude among 362 university students, the study found that self-stigma towards mental health service is a significant predictor of psychological help-seeking attitudes. The finding is also similar with Valley et al. (2018) that demonstrated a significant predictive relationship between low levels of self-stigma and increased of positive help-seeking attitudes. Valley suggested that it may be due to the culturally-determined value and perceptions.

Apart from that, Goodwin (2017) has conducted a study among 174 athletes in United States to study the relationship of self-stigma and help-seeking attitudes from student-athlete point of view. The results showed that self-stigma towards mental illness is negatively predicted the attitude of student-athletes to seek for mental help (Goodwin, 2017). The reason is they might perceive the mental health services are unhelpful in supporting or improving their athletic performance (Goodwin, 2017). Thus, high self-stigma would negatively affect the students' attitude towards help-seeking.

Perceived Public Stigma, Self-Stigma, and Attitudes towards Mental Health Help-Seeking

According to Vogel et al. (2007), the research conducted among 680 psychology students have resulted in self-stigma fully mediated between perceived public stigma and attitudes toward psychological help seeking. It is supported by modified labelling theory of self-stigma plays a role between perceived public stigma and attitudes toward help-seeking (Vogel et al., 2007). Hence, perceived public stigma and help-seeking attitudes is fully mediated by self-stigma.

Latalova, Kamaradova, and Prasko (2014) conducted a study among adult male patients with depression in order to examine the participants' perspective on perceived public stigma and self-stigma. Their finding is consistent with previous study that self-stigma fully mediate the link between perceived public stigma and help-seeking attitudes. Perceptions of public stigma will contribute to the experience of self-stigma, which eventually influence the attitudes toward psychological help-seeking (Latalova et al., 2014). In short, the relationship between perceived public stigma and attitudes towards psychological seeking is fully mediated by self-stigma.

Based on Topkaya (2014), it showed that public stigma is not a significant predictor of attitudes toward mental help-seeking as there is a weak significant relationship between these two variables. Self-stigma towards mental help-seeking is demonstrated to have a significant negative moderate correlation with help-seeking attitudes. Thus, Topkaya's (2014) findings conclude that self-stigma towards mental help-seeking is more important than public stigma in explaining mental help-seeking attitudes.

According to mediation analysis, Valley et al. (2018) presented the results of there is an indirect effect of public stigma on help-seeking attitudes through self-stigma. The direct effect public effect on help-seeking attitudes is not significant when controlling by self-stigma as the mediator (Valley et al., 2018). The result showed that self-stigma fully mediated the link between public stigma towards mental illness and help-seeking attitudes. Valley et al. (2018) suggested that stigma held by public toward mental illness will lead to internalization of stigma, which in turn increased the negative attitudes toward psychological help-seeking.

Other than that, Ludwikowski, Vogel, and Armstrong (2009) found the mediated pathway from public stigma towards mental illness through self-stigma to help-seeking attitudes is significant through bootstrap distribution. In other words, self-stigma fully

mediated the link between perceived public stigma and attitudes of seeking mental health services. It can also be explained that public stigma was negatively correlated with attitudes toward individual counselling only through the relationship with self-stigma (Ludwikowski et al., 2009). Therefore, it also concluded that self-stigma significantly mediate between perceived public stigma and help-seeking attitudes.

Vogel et al. (2010) conducted a research to study on the correlation between public stigma, self-stigma and attitudes toward group counselling in United States among 491 college students. The finding is also consistent with previous studies, which stated that the mediated pathway from public stigma towards mental illness through self-stigma to attitudes toward seeking group counselling is significant.

Theoretical Framework

Modified labelling theory. Modified Labelling Theory (MLT) relies on the social devaluations, discrimination toward mental illness, which is public stigma, that lead to negative effect on individual's self-esteem, which is self-stigma, if they internalized themselves as having psychological problem (Lin, Cullen, Struening, Shrout, & Dohrenwend, 1989). According to Vogel et al. (2006), public stigma will lead to internalization of stigma, which is self-stigma, and consequently affect the attitudes and intention of seeking psychological services. Most of the people in this society devalue and discriminate those with mental health illness and holding a belief that they are unworthiness (Link et al., 1989). Once an individual is confirmed with mental illness, the cultural conceptions of psychologically ill, such as being incompetent and useless, will become self-relevant and converted into negative self-feelings (Kroska & Harkness, 2008). Thus, an official label would be placed on patients with mental health problems.

Patients with mental illness will response to their stigmatizing status with defensive behaviours, which are secrecy, withdrawal or educating others (Link et al., 1989). Secrecy refers to individuals will hide their treatment history from the society, such as employers, colleagues, and friends, to avoid rejection and discrimination. Withdrawal refers to individuals will limit the social interaction with those who already aware of their mental illness and tend to accept the stigmatized condition. Educating others refers to individuals will change others' perception towards mental illness (Link et al., 1989). However, these defensive behaviours are often backfires (Kroska & Harkness, 2008). Link et al. (1989) pointed out it increases the vulnerability to future disorder and it is regarded as risk factor for mental health disorder.

Public stigma towards mental illness will cause negative outcomes, such as it will negatively affect the social interaction, self-esteem and self-worth of patients with mental health issues (Link et al., 1989). The negative outcomes from the social labelling include income loss, job loss and demoralization (Link, 1987). Therefore, Kroska and Harkness (2008) pointed out that public stigma will foster a patient's negative self-feeling and prompt them to have a counterproductive behaviour.
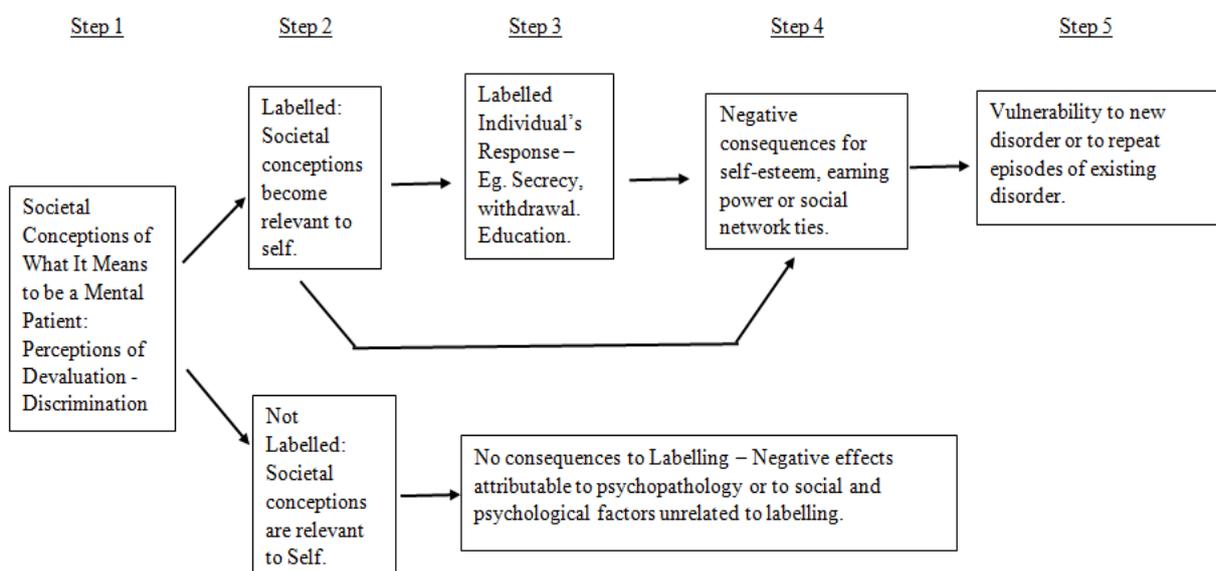
Figure 1. Modified Labelling Theory.

Conceptual Framework

In this study, the variables that involved include perceived public stigma, self-stigma, and attitudes toward mental health help-seeking. Figure 1 shown that perceived public stigma is the input or independent variable, attitudes toward mental health help-seeking is the output or outcome variable, and self-stigma is the mediating variable. The focus of the study is to examine the role of perceived public stigma and self-stigma in attitudes towards mental health help-seeking respectively, and the mediating role of self-stigma between perceived public stigma and attitudes toward mental health help-seeking. The data collected in this study will be analyzed using simple linear regression to test out the effect of perceived public stigma and self-stigma in attitudes towards mental health help-seeking respectively. Besides, Hayes PROCESS macro will be used to test out the mediating effect of self-stigma (Hayes, 2018). The model focuses on the estimation of the indirect effect of perceived public stigma on mental health help-seeking attitudes through an intermediary mediator variable, self-stigma, which is causally located between perceived public stigma and attitudes toward mental health help-seeking as illustrated in Figure 2.

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                        ┌─────────────────┐
                        │   Self-Stigma   │
                        └─────────────────┘
                     ↗                       ↘
┌──────────────────┐                        ┌──────────────────┐
│ Perceived Public │                        │ Attitudes toward │
│     Stigma       │ ─────────────────────→ │ Mental Health Help-│
│                  │                        │     Seeking      │
└──────────────────┘                        └──────────────────┘
```
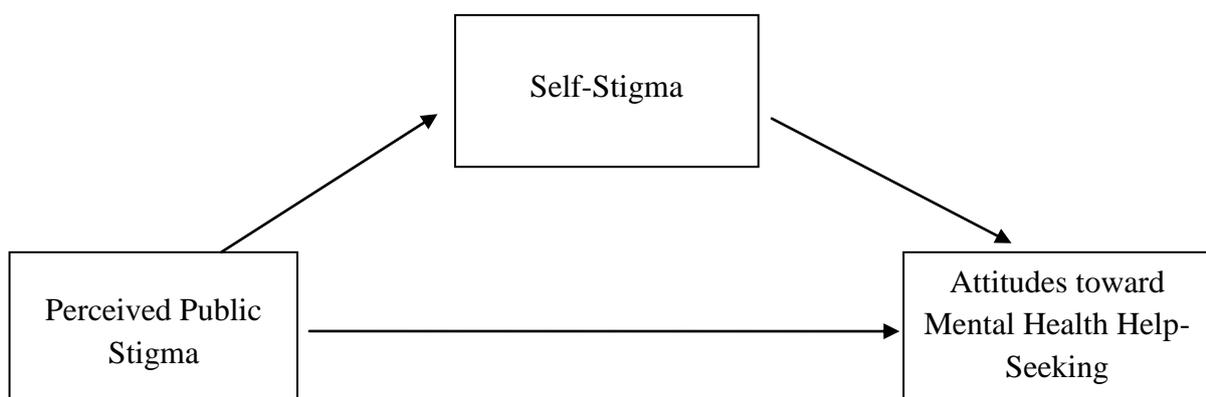
Figure 2. The Mediating Role of Self-Stigma between Perceived Public Stigma and Attitudes toward Mental Health Help-Seeking.

Chapter Summary

In this chapter, we have discussed on the results from past studies on how perceived public stigma and self-stigma predicts attitudes towards seeking mental health help respectively. Besides, past literatures on perceived public stigma on mental health help-seeking attitudes were also summarized in this chapter. Moreover, past researches about the effect of self-stigma on help-seeking attitudes were also reviewed in this study. In addition, the studies on the mediating effect of self-stigma between perceived public stigma and attitudes toward mental health help-seeking were discussed in this chapter. Modified Labelling Theory was used to explain the link between perceived public stigma and self-stigma on attitudes towards seeking mental health services. Lastly, the conceptual framework was displayed in a diagram in order to provide a clearer understanding on the relationships between variables studied in this research.

Chapter III

Methodology

Introduction

This chapter outlined the research design used to frame this study. Research sample and research location were explained in the paragraphs followed by instruments used in the study. Next, the details of the research procedures were clearly stated including the pilot study. The data analysis plan was presented at the end of this chapter.

Research Design

In this study, cross-sectional design was adopted and data were collected from the samples selected from the population at one point of time. According to Levin (2006), cross-sectional study was usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for the aim of public health planning. There were several advantages of adopting cross-sectional study, such as it was relatively inexpensive, quick, and easy to perform (Levin, 2006). Apart from that, it was useful for public health planning as multiple risk factors and outcomes able to be assessed at once.

Besides, quantitative method was used to collect the data in this study. Survey was distributed in the form of online questionnaire, which consisted of three instruments measuring perceived public stigma, self-stigma, and attitudes towards mental health help-seeking. In this study, convenience sampling was adopted since it was a type of non-probability or non-random sampling in which members of the target population were recruited for the study based on some practical criteria, including easy accessibility, availability at a given time, geographical proximity, and willingness to participate in the study (Etikan, Musa, & Alkassim, 2016). The main objective of adopting convenience sampling in this study was to gather information from the respondents who are easily

accessible to the researcher to save the cost and time. Random sampling was not adopted in this study because it was impossible to obtain the name list of all the students from all public and private universities in Malaysia and if the sampling method is adopted, the researchers might face difficulties to approach every selected respondent as well.

Research Sample

In this study, the targeted population is university students in Malaysia. Sample was obtained from the targeted population for the research purpose. University students who were currently pursuing foundation, diploma, bachelor's degree and master's degree were participated in the study.

The sample size was estimated based on Krejcie and Morgan (1970)'s table. In this research, the population size of university students who are currently studying in public and private universities were 538,555 and 379,440 respectively, which added up to a total of 917,995, nearly one million of students (Ministry of Higher Education, 2017). Referring to the table, the minimum sample size for the population of one million is 384 with 95% confidence and 5% margin of error (Krejcie & Morgan, 1970). Therefore, the minimum sample size required for this study is decided at 384.

In the study, 555 responses were collected from the university students from both public and private universities in Malaysia. However, 134 responses were removed from the analysis during the data screening and cleaning due to incomplete responses, and another 33 responses were removed as they were univariate outliers in this study (see Appendix G). Hence, there were only 388 usable complete responses left for the analysis.

Research Location

In this study, the questionnaire was created using Qualtrics and was posted on few social networking sites, such as Facebook and Twitter, and also circulated through instant mobile applications, such as Messenger, Wechat and Whatsapp, to attract more potential respondents.

Instrumentation

Social Stigma of Receiving Psychological Help (SSRPH). SSRPH developed by Komiya et al. (2000) was used to measure perceived public stigma among university students. It consisted of five items assessing individuals' perceptions of the general public stigma towards receiving professional psychological help. All the items will were scored on a 4-point Likert scale, ranging from 0 (strongly disagree) to 3 (strongly agree). All the items were summed up to obtain the total score which ranging and higher scores indicated a greater perception of public stigma toward seeking help. Examples of items included "Seeing a psychologist for emotional or interpersonal problems carries social stigma" and "People will see a person in a less favourable way if they come to know that he/she has seen a psychologist". The internal consistency for Cronbach's Alpha of the original measure was .72 (Komiya et al., 2000). The reliability estimates for SSRPH scale obtained from samples of college students ranged from .72 to .80 (Vogel, Bitman, Hammer, & Wade, 2013; Vogel, Wade, & Ascheman, 2009; Vogel et al., 2006; Choi, 2016). In this study, the Cronbach's Alpha was .69, which is considered moderate reliability (Hinton, Brownlow, McMurray, & Cozens, 2004).

Self-stigma of Seeking Help (SSOSH). SSOSH developed by Vogel et al. (2006) was used to measure self-stigma among university students. It consisted of ten items assessing individuals' perception towards seeking psychological help. If individuals viewed

seeking psychological help as a socially unacceptable behaviour, it could lead to decrease in their level of self-esteem and they might experience low self-worth (Vogel et al., 2006). All the items were scored on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with five items are reverse-coded. All the items were summed up to obtain the total score and higher scores reflected higher self stigma, which suggested that the individuals had a more negative stigma toward seeking psychological help. Examples of items included "I would feel inadequate if I went to a therapist for psychological help" and "Seeking psychological help would make me feel less intelligent". The internal consistency for Cronbach's Alpha of the original measure validated in several studies ranged from .86 to .90, and the two-week test-retest reliability among samples of college students reported a Cronbach's Alpha of .72 (Vogel et al., 2006). The reliability estimates for SSOSH scale obtained from samples of college students ranged from .88 to .91 (Pederson & Vogel, 2007; Vogel et al., 2013; Vogel et al., 2006; Vogel et al., 2007). In this study, the Cronbach's Alpha was .67, which is considered moderate reliability (Hinton et al., 2004).

Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF). ATSPPHS-SF developed by Fischer and Farina (1995) was used to measure attitudes toward seeking professional help among university students. It consisted of 10 items assessing attitudes about seeking help from mental health professionals in times of emotional crisis or distress. All the items were scored on a 4-point Likert scale, ranging from 0 (disagree) to 3 (agree), with five items are reverse-coded. All the items were summed up to obtain the total score and higher scores indicated a more positive attitude toward help seeking. Examples of items included "I would want to get psychological help if I were worried or upset for a long period of time" and "A person should work out his or her own problems; getting psychological counselling would be a last resort". The internal consistency for Cronbach's Alpha of the original measure was .84, and the one-month test-retest reliability

among samples of college students reported a Cronbach's Alpha of .80 (Fischer & Farina, 1995). The reliability estimates for ATSPPHS-SF scale obtained from samples of college students ranged from .79 to .82 (Komiya et al., 2000; Pederson & Vogel, 2007; Vogel et al., 2006). In this study, the Cronbach's Alpha was .59, which is considered moderate reliability (Hinton et al., 2004).

Research Procedure

In this study, university students in Malaysia were recruited to take part in the online survey. Before the data collection, approval and permission were obtained from our previous supervisor, En. Salahuddien bin Ayob, and our current supervisor, Ms. Komathi a/p Lokithasan, to ensure all the information in the online questionnaire is correct and the research procedure is ethical. The questionnaire was created using Qualtrics and responses were collected from January 2019 until March 2019. It was distributed through the social networking sites, such as Facebook and Twitter, and instant messaging applications, such as Messenger, Wechat and Whatsapp, to reach potential respondents.

In the survey, participant information sheet was given to the respondents on the first page of the survey in Qualtrics to inform the purpose of the study. They were required to read the instructions given and fully understand the risk of this research before responding to the questionnaire. The respondents were also informed about the confidentiality of the survey and their rights to quit the survey at any point of time as the survey was solely based on voluntary basis. Besides, informed consent was obtained from the respondents in regard to their willingness to participate in this research, in which they were required to click on the statement "Yes, I agree to participate" if they did not have further inquiries and agreed to participate in this research. The questionnaire consisted of 25 items on three instruments, namely SSRPH, SSOSH, and ATSPPHS-SF. Demographic information, such as age, sex,

races, highest education attain, place of study, and current place of residence, were obtained from the respondents at the final section of the survey. The survey took approximately seven minutes to be completed. After collecting all the data, it was analysed using IBM Statistical Package for the Social Sciences (SPSS) Version 20.

Pilot Study

Pilot study was conducted among 60 university students in Malaysia. The questionnaire was posted on social media, such as Facebook, and instant messaging application, such as WeChat and WhatsApp. The responses were collected within one week and were analyzed using SPSS Version 20. After screening out the univariate outliers using Boxplot (see Appendix F), there were 57 usable complete responses left. The reliability in Cronbach's Alpha for SSRPH, SSOSH, and ATSPPHS-SF were found to be .65, .64, and .53 respectively, which are considered moderate reliability (Hinton et al., 2004).

Data Processing and Analysis

In this study, SPSS Version 20 was used to obtain the statistical result for this research. The categorical variables, such as sex, races, highest education attain, and current place of residence, were measured in descriptive statistics in terms of frequency and percentage. While the continuous variables, including age, perceived public stigma, self-stigma, and attitudes toward mental health help-seeking were measured in descriptive statistics in terms of frequency, percentage, mean, standard deviation, minimum value, and maximum value.

On the other hand, the effects of perceived public stigma and self-stigma on attitudes toward mental health help-seeking were examined using multiple linear regression. Preliminary analyses were conducted prior to the regression analysis to ensure there were no

violation of non-multicollinearity assumption and to ensure the normality, linearity, and homoscedasticity assumptions were meet. Univariate outlier and multivariate outlier were also detected before conducting multiple linear regression.

Besides, the direct effect of perceived public stigma on attitudes toward mental health help-seeking and the indirect effect of perceived public stigma on attitudes toward mental health help-seeking through the mediator, self-stigma, were analyzed using Hayes PROCESS macro model 4 (Hayes, 2018).

Chapter Summary

In the study, cross-sectional approach and quantitative method were adopted as the research design. University students from both public and private university in Malaysia were recruited to participate in this study through convenience sampling. Social Stigma of Receiving Psychological Help (SSRPH), Self-stigma of Seeking Help (SSOSH) and Attitudes toward Seeking Professional Psychological Help Scale - Short Form (ATSPPHS-SF) were the three instruments used to measure the variables in the research. Moreover, pilot study was conducted to measure the instruments' reliability. However, the Cronbach's Alphas of reliability for all three instruments were found to be moderate only in both pilot study and actual study. Lastly, multiple linear regression test and mediation analysis using Hayes' PROCESS macro model 4 were carried out using IBM Statistical Package for Social Science (SPSS) version 20.

Chapter IV

Results

Introduction

This chapter first presented with the normality assumptions in this study. Next, descriptive statistics of the respondents and the frequency distribution of the variables were also presented. Preliminary analysis of multiple linear regression were examined and clearly outlined in this chapter. Inferential statistics of multiple linear regression and mediation analysis using Hayes' PROCESS macro model 4 on the variables were also clearly presented in this chapter. Summary of findings were illustrated in tables at the end of this chapter.

Assessing Normality

Normality assumptions were assessed using histogram and Boxplot. Univariate outliers which exceed more than one and a half box-lengths and three box-lengths calculated from the box's edge were detected and identified from the Boxplot through the small circles attached with case number and the asterisks respectively. In this study, there were 33 univariate outliers found and were being removed from further analysis (see Appendix G).

Besides, skewness and kurtosis under descriptive statistics were also used to assess normality. According to Pallant (2016), the value of skewness provided information about the symmetry of the distribution, in which positive value of skewness indicated the scores were clustered at the left-hand side of a graph at the low values whereas negative value of skewness suggested the scores were clustered at the right-hand side of a graph at the high values. In this study, the skewness of perceived public stigma and self-stigma were found to be in negative values (see Table 4.1), indicating the scores were mostly clustered at right-hand side with high values. For attitudes toward mental health help-seeking, the skewness value was .20, indicating most of the scores were clustered at left-hand side with low values.

Meanwhile, the value of kurtosis provided the information about the "peakedness" of the distribution (Pallant, 2016). Positive value of kurtosis suggested that the distribution was rather peaked with most of the cases clustered in the middle while kurtosis value below 0 indicated the distribution was relatively flat with too many extreme cases (Pallent, 2016). In this study, perceived public stigma was found to have a value lower than 0, which was -.24, indicating that the distribution was relatively flat. For self-stigma and attitudes toward mental health help-seeking, both were found to have positive values, which were .06 and .05 respectively, suggesting the distribution was rather peaked.

Apart from that, the acceptable range of the values of skewness and kurtosis were between -2 and 2, suggesting normal univariate distribution (George & Mallery, 2010). In this study, both skewness and kurtosis values of all the variables were fall within the acceptable range (see Table 4.1).

Table 4.1

Descriptive Statistics of Continuous Variables (N=388)

	Skewness		Kurtosis	
	Statistic	*SE*	Statistic	*SE*
Perceived public stigma	-.04	.12	-.24	.25
Self-stigma	-.18	.12	.06	.25
Attitudes toward mental health help-seeking	.20	.12	.05	.25

Note. SE = standard error.

Furthermore, normality was also assessed using tests of normality. A non-significant result with *p*-value greater than .05 displayed in Kolmogorov-Smirnov indicated normality (Pallant, 2016). In this study, the *p*-value for perceived public stigma, self-stigma, and attitudes toward mental health help-seeking were all found to be lesser than .001, indicating normality assumptions were not met (see Table 4.2). However, Pallant (2016) stated that in larger samples, it was quite common that assumptions of normality were not met. Apart from that, the Shapiro-Wilk test was also used to assess normality. In this study, the *p*-values of all

the three variables were found to be smaller than .05, suggesting the data were not normally

distributed (Ghasemi & Zahediasl, 2012).

Table 4.2

Tests of Normality (N=388)

	Komolgorov-Smirnov			Shapiro-Wilk		
	Statistic	*df*	*p*	Statistic	*df*	*p*
Perceived public stigma	.11	388	.000	.98	388	.000
Self-stigma	.07	388	.000	.99	388	.011
Attitudes toward mental health help-seeking	.11	388	.000	.98	388	.000

Note. df = degrees of freedom; *p* = significant value.

Descriptive Statistics

Table 4.3 displayed the demographic information of the respondents in this study. The

sample consisted of 388 respondents with ages range from 18 to 35 ($M = 21.71$, $SD = 2.23$).

Females outnumbered males by about two to one in this study as there were 260 female (67%)

and 128 (33%) male respondents. Besides, most of the respondents were Chinese (65.2%),

followed by Malays (22.2%), Indians (10.6%), and other races (2.1%). In addition, 247

respondents (63.7%) pursued their study in private university as compared to 141 respondents

(36.3%) in public university. Bachelor's degree (67.3%) was found to be the mostly attained

highest education level among the respondents, followed by SPM (10.3%), STPM (5.2%),

diploma (4.6%), and master's degree (2.1%). Furthermore, about half of the respondents

(49.7%) were living in semi-urban areas, followed by urban (24.2%), rural (12.4%), and

others (3.1%). There were 41 respondents (10.6%) who did not report their highest education

level attained and current place of residence in this study.

Table 4.3

Demographic Information of Sample (N=388)

	n	%	*M*	*SD*	Min	Max
Age			21.71	2.23	18	35
18	11	2.8				
19	37	9.5				
20	60	15.5				
21	86	22.2				
22	81	20.9				
23	58	14.9				
24	35	9.0				
25	4	1.0				
26	4	1.0				
27	3	0.8				
28	3	0.8				
29	2	0.5				
31	1	0.3				
33	1	0.3				
35	2	0.5				
Sex						
Male	128	33.0				
Female	260	67.0				
Races						
Chinese	253	65.2				
Malay	86	22.2				
Indian	41	10.6				
Others	8	2.1				
Highest Education Attained						
Master's Degree	8	2.1				
Bachelor's Degree	261	67.3				
Diploma	18	4.6				
STPM	20	5.2				
SPM	40	10.3				
Missing Data	41	10.6				
Nature of Institution						
Public	141	36.3				
Private	247	63.7				

Note. n = number of cases; % = percentage; M = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value. Sample of 388 respondents are from different universities in Malaysia.

Table 4.3 (Cont')

Demographic Information of Sample (N=388)

	n	%	*M*	*SD*	Min	Max
Current Place of Residence						
Urban	94	24.2				
Semi-urban	193	49.7				
Rural	48	12.4				
Others	12	3.1				
Missing Data	41	10.6				

Note. n = number of cases; % = percentage; M = mean; *SD* = standard deviation; Min = minimum value; Max = maximum value. Sample of 388 respondents are from different universities in Malaysia.

Table 4.4 showed the frequency distribution of the variables in the study, which were perceived public stigma, self-stigma, and attitudes toward mental health help-seeking. Mean, standard deviation, minimum value, and maximum value of the scales used were tabulated. Since the scales were scored on the continuous basis, and hence, mean was used as the cut-off point to categorize the scores of the scales into below mean and above mean. The mean value for perceived public stigma, self-stigma, and attitudes toward mental health help-seeking were 6.68 ($SD = 2.31$), 26.08 ($SD = 4.34$), and 16.52 ($SD = 3.67$) respectively.

Table 4.4

Frequency Distribution of Perceived Public Stigma, Self-Stigma, and Attitudes toward Mental Health Help-Seeking (N=388)

	n	%	*M*	*SD*	Min	Max
Perceived public stigma			6.68	2.31	1	12
Low (<6.68)	181	46.6				
High (≥6.68)	207	53.4				
Self-stigma			26.08	4.34	14	38
Low (<26.08)	199	51.3				
High (≥26.08)	189	48.7				
Attitudes toward mental health help-seeking			16.52	3.67	7	26
Low (<16.52)	209	53.9				
High (≥16.52)	179	46.1				

Note. n = number of cases; % = percentage; M = mean; SD = standard deviation; Min = minimum value; Max = maximum value. Sample of 388 respondents are from different universities in Malaysia.

Preliminary Analyses of Multiple Linear Regression

Preliminary analyses were conducted to check the assumptions before performing multiple linear regression.

Non-multicollinearity. Non-multicollinearity assumption was not violated as the values of Tolerance and VIF were reported to be .87 and 1.15 respectively (see Table 4.5), which met the benchmark of more than .1 for Tolerance and less than 10 for VIF (Pallent, 2016). Besides, multicollinearity can also be tested with correlation matrix. In this study, the Pearson's bivariate correlation coefficients of the two independent variables were .36 (see Table 4.6), which was smaller than .8, suggesting the two independent variables were not highly correlated with one another (Schreiber-Gregory & Jackson, 2018).

Table 4.5

Collinearity Statistics of Perceived Public Stigma and Self-Stigma on Attitudes toward Mental Health Help-Seeking (N=388)

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Perceived public stigma	.87	1.15
Self-stigma	.87	1.15

Note. VIF = Variance Inflation Factor.

Table 4.6

Correlations of Variables (N=388)

	1	2	3
1. Perceived public stigma	-		
2. Self-stigma	.36***	-	
3. Attitudes toward mental health help-seeking	-.14**	-.34***	-

Note. **$p < .01$. ***$p < .001$.

Multivariate outliers. For the multivariate outliers, they were detected using the Mahalanobis distances and were determined by the critical value based on the number of independent variables in the study (Tabachnick & Fidell, 2013). In the study, the critical value was identified at 13.82 as there were only two independent variables, and there were no cases that exceeding this value as the maximum value is 13.61 (see Table 4.7) based on Mahalanobis distances (Tabachnick & Fidell, 2013). Besides, multivariate outliers were also detected using Cook's Distance. In this study, there were no cases with values greater than 1 as the maximum value for Cook's Distance was .07 (see Table 4.7), indicating no major problems to the result.

Table 4.7

Residuals Statistics of Perceived Public Stigma and Self-Stigma on Attitudes toward Mental Health Help-Seeking (N=388)

	Min	Max	*M*	*SD*
Mahalanobis distances	.025	13.614	1.995	2.086
Cook's Distance	.000	.072	.003	.006

Note. Min = minimum value; Max = maximum value; *M* = mean; *SD* = standard deviation.

Independence of errors. The independence of errors, which referred to the little or absence of autocorrelation, were examined through Durbin-Watson test. In this study, the independence of errors was achieved with a value of 1.72 (see Table 4.8), which is within the range of 1.5 to 2.5, suggesting the residuals were independent from one another (Schreiber-Gregory & Jackson, 2018).

Table 4.8

Independence of Errors of Perceived Public Stigma and Self-Stigma on Attitudes toward Mental Health Help-Seeking (N=388)

Model	Durbin-Watson
1	1.72

Normality, linearity, and homoscedasticity. Normality, linearity, and homoscedasticity assumptions were met when all the values scattered around "0" when the fit line was added to the Scatterplot of the regression standardized residual over regression standardized predicted value (Osborne & Waters, 2002). Pallant (2016) suggested that the residuals would be roughly rectangularly distributed with most of the scores concentrated in the center along the "0". In this study, most of the values were scattered around "0" with no curvilinear pattern, indicating normality, linearity, and homoscedasticity assumptions were met (see Appendix H).

Inferential Statistics

Multiple linear regression. Multiple linear regression analysis was performed to test if perceived public stigma and self-stigma significantly predicted attitudes toward mental health help-seeking. The model of perceived public stigma and self-stigma on attitudes toward mental health help-seeking was statistically significant, $F(2, 385) = 25.7$, $p < .001$, and accounted for 11.3% of the variance. It was found that self-stigma ($\beta = -.33$, $p < .001$) significantly negatively predicted attitudes toward mental health help-seeking, but not perceived public stigma ($\beta = -.02$, $p = .642$). Therefore, hypotheses 1 and 2 were supported.

Table 4.9

Model Summary of Perceived Public Stigma and Self-Stigma in Predicting Attitudes toward Mental Health Help-Seeking (N=388)

Model	R	R^2	Adjusted R^2	SE of the Estimate
1	.343	.118	.113	3.45

Note. R = multiple correlation; R^2 = multiple correlation squared or measure of strength of association; SE = standard error.

Table 4.10

Analysis of Variance of Perceived Public Stigma and Self-Stigma in Predicting Attitudes toward Mental Health Help-Seeking (N=388)

Model		SS	df	MS	F	p
1	Regression	613.03	2	306.51	25.7	.000
	Residuals	4591.85	385	11.93		
	Total	5204.88	387			

Note. SS = sum of squares; *df* = degrees of freedom; *MS* = mean square; *F* = F distribution; *p* = significant value.

Table 4.11

Coefficients of Perceived Public Stigma and Self-Stigma in Predicting Attitudes toward Mental Health Help-Seeking (N=388)

	Unstandardized Coefficients		Standardized Coefficients		
	B	SE	β	t	p
(Constant)	24.13	1.08		22.37	.000
Perceived public stigma	-.04	.08	-.02	-.47	.642
Self-stigma	-.28	.04	-.33	-6.52	.000

Note. B = unstandardized regression coefficients; *SE* = standard error; β = standardized regression coefficients; *t* = sample value of *t*-test statistic; *p* = significant value.

Mediation analysis. Model 4 of the PROCESS macro by Hayes (2018) with 10,000 bootstrapping was used to test if self-stigma mediated the effect of perceived public stigma on the attitudes toward mental health help-seeking. Results indicated that both path a and b of perceived public stigma on self-stigma ($B = .67$, $SE = .09$, $p < .001$) and self-stigma on attitudes toward mental health help-seeking ($B = -.28$, $SE = .04$, $p < .001$) were significant. However, path c' of perceived public stigma on attitudes toward mental health help-seeking ($B = -.04$, $SE = .08$, $p = .642$) was not significant. The indirect effect of perceived public stigma on attitudes toward mental health help-seeking was significant, $B = -.19$, $SE = .04$, 95% CI [-.27, -.12]. Meanwhile, the direct effect of perceived public stigma on the attitudes toward mental health help-seeking was not significant, $B = -.04$, $SE = .08$, 95% CI [-.20, .12]. The total effect of perceived public stigma on the attitudes toward mental health help-seeking

was significant as well, $B = -.23$, $SE = .08$, 95% CI [-.39, -.07]. Based on the 95% confidence intervals, both indirect and total effect were statistically significant since they did not include zero, while direct effect was not statistically significant since it included zero (Hayes, 2018). Since the indirect effect was significant and the direct effect was insignificant, it indicated that there was a full mediation occurred in the study. Therefore, hypothesis 3 was supported.

The decomposition of effects in the path analysis was calculated based on the measures proposed by Alwin and Hauser (1975). The two relevant measures for simple mediation models are the ratio of the indirect effect to the total effect,

$$P_M = \frac{ab}{ab + c'} = \frac{ab}{c} = 1 - \frac{c'}{c} = 1 - \frac{(-.04)}{(-.23)} = 0.826$$

and the ratio of the direct effect to the total effect,

$$1 - P_M = 1 - \frac{ab}{ab + c'} = 1 - \frac{ab}{c} = \frac{c'}{c} = \frac{(-.04)}{(-.23)} = 0.174$$

in which a is the slope linking X to M, b is the conditional slope linking M to Y, c is the total effect of X on Y, and c′ is the conditional slope linking X to Y (Alwin & Hauser, 1975). In other words, self-stigma mediated 82.6% of the total effect of perceived public stigma on attitudes toward mental health help-seeking.
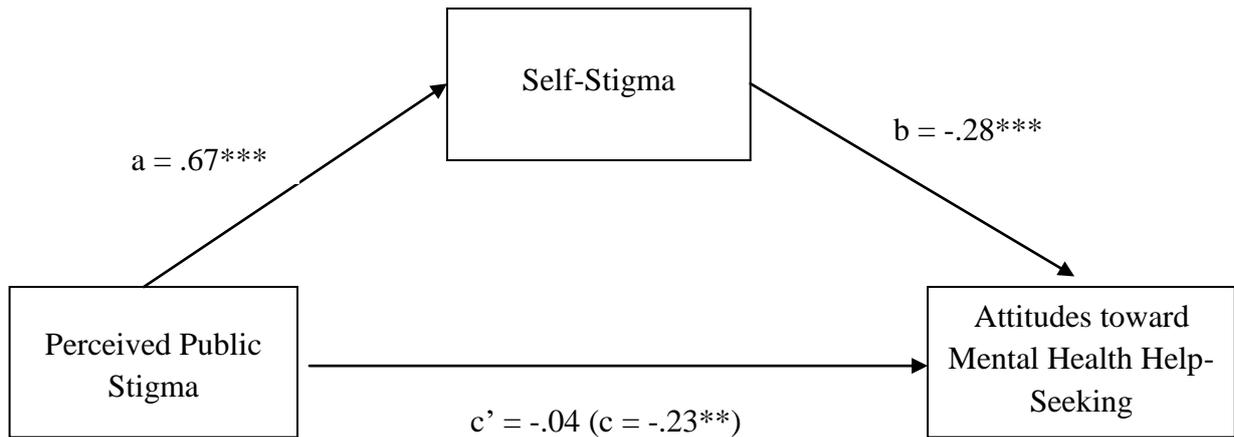
Figure 3. Unstandardized regression coefficients for the relationship between perceived public stigma and attitudes toward mental health help-seeking as mediated by self-stigma. The unstandardized regression coefficients of total effect between perceived public stigma and attitudes toward mental health help-seeking is in parentheses.
**$p < .01$. ***$p < .001$.

Summary of Findings

Table 4.12

Multiple Linear Regression (N=388)

Hypothesis	Results		Decision
	β	*p*	
Perceived public stigma can negatively predict the attitudes toward mental health help-seeking.	-.02	.642	Supported
Self-stigma can negatively predict the attitudes toward mental health help-seeking.	-.33	.000	Supported

Note. β = standardized regression coefficients; *p* = significant value.

Table 4.13

Mediation Analysis (N=388)

Hypothesis	Results			Decision
	B	*SE*	95% CI	
Self-stigma can mediate between perceived public stigma and the attitudes toward mental health help-seeking.	-.19	.04	[-.27, -.12]	Supported

Note. B = unstandardized regression coefficients; *SE* = standard error; CI = confidence interval.

Chapter Summary

The findings of the study showed that perceived public stigma able to predict attitudes toward mental health help-seeking in negative direction although it was not a significant predictor to help-seeking attitudes. Besides, self-stigma was found to be significant predictor to attitudes toward help-seeking and it negatively predicted help-seeking attitudes. In addition, self-stigma also fully mediated between perceived public stigma and attitudes toward mental health help-seeking, in which the indirect effect of perceived public stigma on mental health help-seeking attitudes was found to be significant while the direct effect was not significant when self-stigma was added into the model of mediation analysis.

Chapter V

Discussion and Conclusion

Introduction

This chapter discussed the findings of this research according to the hypotheses with supportive materials from the past literatures. Next, this chapter also summarized the study based on the major findings of the study. In addition, the theoretical and practical implications of the results were presented in this chapter. Lastly, the limitations and suggestions for future study were stated as well.

Discussion

Research question 1: Does perceived public stigma negatively predict attitudes toward mental health help-seeking?

Research hypothesis 1: Perceived public stigma can negatively predict the attitudes toward mental health help-seeking.

The results showed perceived public stigma had an indirect negative effect on help-seeking attitudes. The finding is supported by Vogel et al. (2007) as their research also showed significant indirect effect between perceived public stigma and help-seeking attitudes. This is because they discovered self-stigma towards help-seeking behaviour played a mediating effect between perceived public stigma and help-seeking attitudes. Public stigma was found to have lesser variance in help-seeking attitudes if compared to internalized stigma. The results are also consistent with Topkaya (2014) as their finding showed perceived public stigma was not a significant predictor towards help-seeking attitudes. The statement is given an explanation that self-stigma towards help-seeking is more important than perceived public stigma in explaining the mental health help-seeking attitudes (Topkaya, 2014).

Therefore, perceived public stigma is not directly affect on help-seeking attitudes as self-stigma towards mental health help-seeking is displaying a mediating effect between the

variables. This is being explained as the negative societal perception towards mental health help seeking will only affect the help-seeking attitudes once the individual internalized the stigma. This is because an individual's behaviour is based on their own cognition. Once the individual has the thought of seeking mental health professional is worthlessness, subsequently it will significantly affect his or her help-seeking attitude. Without the thought of being uselessness, societal perception will not have significant effect on help-seeking attitude.

Research question 2: Does self-stigma negatively predict attitudes toward mental health help-seeking?

Research hypothesis 2: Self-stigma can negatively predict the attitudes toward mental health help-seeking.

According to the result obtained, self-stigma for receiving or seeking help is significantly negatively influence the attitudes towards mental health help-seeking. It indicates individuals who held a negative self-stigma towards mental health professional would cause them to have negative attitudes towards mental health help-seeking. This finding is similar with the past study that showed self-stigma for seeking mental help is significantly predicted help-seeking attitudes (Topkaya, 2014).

As stated in Vogel et al. (2007), the findings on self-stigma towards seeking professional help predict help-seeking attitudes based on structural model was consistent with the result obtained in this study. It is supported by theory of reasoned action, which explains the help-seeking willingness is depending on one's attitude, and the attitudes are strongly correlated with self-stigma towards help-seeking. Hence, an individual with high self-stigma towards help-seeking will cause him or her to have low attitudes towards seeking mental health help.

Besides, Surapaneni (2015) stated that's self-stigma contributed a significant variance towards mental health help-seeking attitudes. It is negatively correlated between these two variables. As mentioned in Surapaneni (2015), this result is supported by modified labelling theory as internalization of negative view from society would result in less favourable help-seeking attitudes. As similar to Cheng et al. (2018), they stated that self-stigma towards help-seeking significantly explained the attitudes towards mental health help-seeking. Those with high self-stigma are less likely to endorse encouraging attitudes in seeking help from mental health professional.

In addition, Valley et al. (2018) mentioned there is a significantly negatively predictive relationship between self-stigma towards help-seeking and help-seeking attitudes. It can be explained by culturally-determined values and perceptions in United Arab Emirates. The attitudes toward mental health help-seeking are generally depending on how the country defined and perceived the types of mental health problems.

In brief, self-stigma on seeking mental health help was able to predict attitudes towards seeking mental health professional in a negative direction. Once individuals internalized the stigma, they will choose keep their psychological distress as secret and hide it from the society to avoid rejection. Furthermore, individuals feel shame about the mental problems found on themselves. Their belief about own uselessness and worthlessness directly affect their attitudes in seeking psychological help. The individual will think that once they look for mental health professional help, the 'big secret' they try to hide will be known by everyone. Hence, belief in the stigma brings a huge impact on individuals' help-seeking attitudes.

Research question 3: Does self-stigma plays a mediating role between perceived public stigma and the attitudes toward mental health help-seeking?

Research hypothesis 3: Self-stigma can mediate between perceived public stigma and the attitudes toward mental health help-seeking.

Based on the results obtained, hypothesis 3 is accepted, in which self-stigma for receiving or seeking help mediated between perceived public stigma for receiving or seeking help and the attitudes toward mental health help-seeking. The findings are consistent with past study conducted by Vogel et al. (2007), which found that self-stigma fully mediated between perceived public stigma and help-seeking attitudes. Self-stigma was found to be the separate mediators between the perceived public stigma and help-seeking attitudes. The findings are supported by Modified Labelling Theory which explains how the societal negative perceptions toward seeking mental health help affect the internalization of the public stigma, which in turn affecting individual's attitude in help-seeking. Vogel et al. (2007) also stated that self-stigma is a more important predictor of help-seeking attitudes if compared to perceived public stigma.

According to the research conducted by Valley et al. (2018), the result obtained was also consistent with the findings in this study. Valley et al. (2018) stated that the direct effect of public stigma towards help-seeking on help-seeking attitudes become insignificant when it is controlled by the mediator, which is self-stigma. Full mediation by self-stigma was found between perceived public stigma and help-seeking attitudes. Other than that, Latalova et al. (2014) also showed a consistent result by stating self-stigma towards receiving help from professional is fully mediated between perceived public stigma and help-seeking attitudes. In other words, societal perceptions on mental illness contributed to the experience of self-stigma, which eventually influence help-seeking attitudes.

Moreover, the results in this study do show similarity with a research conducted by Vogel et al. (2010). Based on the bootstrap result, the mediated pathway from public stigma towards help-seeking through self-stigma towards receiving mental health help to help-seeking attitudes are all significant. The finding is supported by MLT, in which the societal perception on mental health help-seeking could lead to internalization on an individual who is mentally ill, and consequently affect his or her help-seeking attitudes.

The findings of this study can be explained as if the individual lived in a collectivist culture, the individual's sense of self is link to the familial unit and wider society. The individual may focus more on the negative publicly-held views and consequently lead to self-stigma and less favourable towards the help-seeking attitudes. Process of internalization may be culturally varied as if the culture is less defined on the mental illness, individuals may rely more on their own evaluations. Thus, societal perception would have the influence on individuals' own perception, consequently affecting their help-seeking attitudes.

Conclusion of the Study

In Malaysia, there is a dramatic rise of the number of cases related to poor mental health. Stigma related to mental illness has become a major barrier for people living with mental health issues to seek professional help. Therefore, this research aimed to examine the effect of perceived public stigma and self-stigma on the attitudes towards mental health help-seeking among university students in Malaysia. Besides, this research also aimed to find out the mediating role of self-stigma between perceived public stigma and the attitudes towards mental health help-seeking among university students in Malaysia.

In this quantitative cross-sectional study, 555 responses were collected from the university students from both public and private universities in Malaysia. Respondents were recruited through convenient sampling from January 2019 till March 2019 via online survey

created using Qualtrics. Social Stigma of Receiving Psychological Help (SSRPH), Self-stigma of Seeking Help (SSOSH) and Attitudes toward Seeking Professional Psychological Help Scale - Short Form (ATSPPHS-SF) were the instruments used to measure the variables in this study. The usable responses after data cleaning and screening was 388 left, with 128 males and 260 females aged range from 18 to 35 ($M = 21.71$, $SD = 2.23$). Among the sample, most of them were Chinese (65.2%), followed by Malays (22.2%), Indians (10.6%), and other races (2.1%).

Preliminary analyses were conducted to check the assumptions prior to multiple linear regression. The results of multiple linear regression showed that self-stigma was a significant predictor to attitudes toward help-seeking, but not perceived public stigma. However, perceived public stigma was still able to negatively predict the attitudes toward mental health help-seeking even though it was not a significant predictor. This is because public stigma was found to have lesser variance in help-seeking attitudes if compared to internalized stigma and it was not directly affect on help-seeking attitudes as self-stigma towards mental health help-seeking is displaying a mediating effect between the variables. The internalization of negative view from society would result in less favourable help-seeking attitudes and also individuals with high self-stigma were less likely to display positive attitudes in seeking help from mental health professional.

Mediation analysis conducted using Hayes' PROCESS macro found that self-stigma fully mediated between perceived public stigma and attitudes toward mental health help-seeking, in which the indirect effect of perceived public stigma on mental health help-seeking attitudes was found to be significant while the direct effect was not significant when self-stigma was added into the model of mediation analysis. This can be explained by how the society's perceptions on mental illness contributed to one's self-stigma, which eventually influence one's attitudes to seek help. It is also supported by MLT.

Implication of the Study

   Theoretical implications. The theory that applied in the research was MLT, which stated the social devaluations and discrimination toward mental illness will cause the individuals to internalize themselves as having psychological problems and it would negatively affect their self-esteem (Link et al, 1989). The established theory was once again being tested in this study, but this time it was tested among university students in Malaysia. The results obtained in this study have proven that this theory can be applicable in Malaysia setting, and it serves as the latest statistics of mental health help-seeking attitudes among university students in Malaysia. By providing the latest statistics, the society may start to be aware of the consequences of the labelling effect and subsequently reduce the stigma on those who are mentally ill.

   Besides, the findings of this study also support the current theoretical literature, and it helps to fill up the knowledge gap in our society regarding how self-stigma affects one's attitudes towards mental health help-seeking. As stated in the results, perceived public stigma significantly predicted self-stigma, and self-stigma significantly predicted help-seeking attitudes. Eventually, it will also affect the individual's intention and willingness to seek professional help as illustrated in the current theory. Future researchers who are interesting to study mental health issues can further employ this theory to find out the intention and willingness of the individuals to seek professional mental health services.

   Practical implications. The results of this research are significant with respect to clinical practice. This is because alteration of societal perception towards mental illness are challenging as it may require changes from everyone in the society. Therefore, with the understanding of the role of self-stigma as the mediator, it could help mental health professional to design a more practical and efficient programme to encourage people to seek professional help. Even though there are some interventions that help to reduce public stigma,

yet the recent study suggests to concern on the negative perception about an individual when they seek for psychological help (Corrigan, 2004). Thus, it is important for counsellor to teach them on how to overcome or manage the internalizing stigma. For instance, Holmes and Rivers (1998) suggested that teach the individual on cognitive-behavioural strategies in order to identify stigma and develop coping skills.

Helping the individuals to understand how self-stigma could effect on their decision making may help to promote the use of psychological services. For instance, males will internalize the societal perception of being weak and worthless if they have been diagnosed with mentally illness. Other than that, the targeting sample group, which is the university students, may also internalize the perception from public which saying them vulnerable. Therefore, it is crucial to design a programme to the specific group-typed by teaching them to understand how self-stigma affecting their thoughts and some coping strategies to overcome their negative perceptions towards help-seeking. For instance, web-based intervention programme or public workshops based in local communities may be able to aid the individuals to identify the stigma.

There are also some evidences stated that individual will feel lesser self-stigma if the diseases or symptoms have been normalized. People tend to view their mental illness with less embarrassment and guilt when their illness is given the explanations including having such disease is not their fault, the disease is reversible and their conditions will improve if they undergo treatment. For example, if a person is being diagnosed as a patient living with depression, it is not solely due to impairment in psychological states, but also impairment in their brain structure (Barlow, Durand, & Steward, 2009). Hence, by providing psychoeducation to the society about mental illness, it would increase the opportunity for the individuals to seek help from mental health professional.

Limitations of Study

There were several limitations in this study. Firstly, the scales used in this study had only found to have moderate reliability. It might probably due to sources of error within the test such as guessing on the test and misinterpreting the test instructions (Drost, 2011). The respondents from different courses of study might not understand the words in the items which involved terms related to field of psychology, namely social stigma, inadequate, self-esteem, and inferior. Consequently, they might just simply rate the items on the Likert-scale, which lead to moderate level of Cronbach's Alpha of the scales.

Besides, a response rate bias could occur due to low response rate that would threaten the representativeness of a sample. As the respondents of this study were recruited through online survey, the respondents might fail to complete the questionnaire because they were too busy or they were not interested in completing the questionnaire. Hence, it would cause the analysis of the results in the study to be inaccurate. The low response rate is evidenced by the 134 incomplete responses collected from the sample of university students' population.

Furthermore, this study was exposed to selection bias due to non probability sampling. This is because the respondents were recruited using convenience sampling through online survey. Selection bias occurred when only those with Internet access were able to answer the questionnaire and those who were from rural areas and did not have Internet access were unable to participate in the survey. Apart from that, the responses were mostly collected from university students who are currently pursuing bachelor's degree and only a few of them are pursuing master's degree, and not included any of them who are pursuing doctoral degree in university all around Malaysia. Therefore, it caused the sample collected may not able to represent the overall population.

Recommendations of Study

There are some recommendations which can be made to improve this study in the future. To improve the reliability of the scales, the items should be written clearly and the test instructions should be easily understood by the respondents (Nunnally, 1978). Future researchers are encouraged to provide definition of the words or to simplify the items by taking into consideration the structure and grammar of the items as well. Another way to overcome the issue is to translate the questionnaire into multiple languages including Malay and Mandarin version. By doing so, the respondents would be able to fully understand the items in their preferred language before rating the items on the Likert-scale.

Besides, as some of the respondents of this study might fail to complete the survey because they were too busy or they were not interested in completing the questionnaire, future researchers can consider ways to attract the participants to take part in the survey. For instance, future researchers can provide some incentives for them after they completed the questionnaire or target the respondents with topics of their intrinsic interests.

Besides, future researchers are recommended to distribute the questionnaire through online survey and traditional paper-and-pencil survey to overcome the selection bias. Hence, those without access to Internet and those who are staying in rural areas would be able to participate in the survey. Apart from that, more numbers of university students who are pursuing master's degree and doctoral degree should be included in the study as well. By doing so, it would increase the overall representation of the sample.

Chapter Summary

This chapter discussed the findings obtained from this study in details in relation to the research hypotheses. Besides, the theoretical implication of the findings on MLT was proved to support the conceptual framework of the study and was also able to fill in the knowledge gap of the society on this topic. Furthermore, the practical implication of the results is important in designing a more practical and efficient programme to encourage people to seek professional help by assisting them to understand how self-stigma affecting their thoughts and also by teaching them some coping strategies to overcome their negative perceptions towards help-seeking. Several limitations and recommendations for future study were also presented in this chapter.

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Appendix A: Participant Information Sheet

UNIVERSITY TUNKU ABDUL RAHMAN
FACULTY OF ARTS AND SOCIAL SCIENCE
BACHELOR OF SOCIAL SCIENCE (HONS) PSYCHOLOGY

Participant Information Sheet

Topic of the Research
"Examine Mental Health Seeking Attitudes among University Students in Malaysia"

Purpose of the Research
This study is done to fulfill the requirements of subject UAPZ 3013 Final Year Project 1 and UAPZ 3023 Final Year Project 2. In order to collect the required information, your participation in this research study is highly appreciated.

Contribution of the Research
This study is important to provide the researchers or practitioners statistical evidence to draw an effective programme. Besides, the research is important to validate the result and it also serves as the latest research for future reference.

Procedures
This questionnaire consists of 25 questions and the estimated time to complete it will be approximately 6 minutes. The questionnaire was designated to find out the mental health seeking attitudes among university students in Malaysia.

Voluntary Participation
Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any point of the time, there will be no penalty and it will not affect the relationship with the researchers in the future.

Confidentiality
All the information will be solely used for the purpose of the study and your individual responses in this study will be kept private and confidential. The data of the research will neither be revealed to the third party nor used for any other purposes other than the study.

Contact Information
If you have any questions concerning the research, kindly contact us, Tan Wei Hong and Eui Ching Sie, at alextwh97@1utar.my and chingsie.eui@1utar.my respectively. You may contact our supervisor, Ms Komathi at komathil@utar.edu.my for future enquiries regarding this research project.

Herewith, I confirm that I have read and understood the information given. I voluntarily agree to take part in this survey.
- ☐ Yes, I agree to participate in this study voluntarily.
- ☐ No, I disagree to participate in this study voluntarily.

Appendix B: Stigma Scale for Receiving Psychological Help (SSRPH)

Below are a number of statements a person usually encountered when seeking mental health services. Please use the 4-point scale below to rate the degree to which each item describes how YOU might react in this situation.

0 = Strongly Disagree; 1 = Disagree; 2 = Agree; 3 = Strongly Agree

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.

2. It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.

3. People will see a person in a less favourable way if they come to know he/she has seen a psychologist.

4. It is advisable for a person to hide from people that he/she has seen a psychologist.

5. People tend to like less those who are receiving professional psychological help.

Appendix C: Self-Stigma of Seeking Help (SSOSH)

People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how YOU might react in this situation.

1 = Strongly Disagree; 2 = Disagree; 3 = Agree & Disagree Equally; 4 = Agree; 5 = Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.

2. My self-confidence would NOT be threatened if I sought professional help.

3. Seeking psychological help would make me feel less intelligent.

4. My self-esteem would increase if I talked to a therapist.

5. My view of myself would not change just because I made the choice to see a therapist.

6. It would make me feel inferior to ask a therapist for help.

7. I would feel okay about myself if I made the choice to seek professional help.

8. If I went to a therapist, I would be less satisfied with myself.

9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.

10. I would feel worse about myself if I could not solve my own problems.

Appendix D: Attitudes toward Seeking Professional Psychological Help Scale - Short Form
(ATSPPHS-SF)

Below are a number of statements pertaining to psychology and mental health issues. Use the rating scale below to circle the number that best describes your opinion. There are no "wrong" answers, and the only right ones are whatever you honestly feel or believe. It is important that you answer every item.

0   = Disagree; 1 = Partly Disagree; 2 = Partly Agree; 3 = Agree
1

1. If I believed I was having a mental breakdown, my first inclination would be to get professional help.

2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.

3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.

4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.

5. I would want to get psychological help if I were worried or upset for a long time.

6. I might want to have psychological counselling in the future.

7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.

8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

9. A person should work out his or her own problems; getting psychological counselling would be a last resort.

10. Personal and emotional troubles, like many things, tend to work out by themselves.

Appendix E: Demographic Information

1. **Age (in years old) : _____**

2. **Sex**
   - o   Male
   - o   Female

3. **Ethnicity**
   - o   Chinese
   - o   Malay
   - o   Indian
   - o   Others: _____

4. **Highest Education Attained**
   - o   Master's Degree
   - o   Bachelor's Degree
   - o   Diploma
   - o   STPM
   - o   SPM

5. **Place of Study: _____**

6. **Nature of Institution:**
   - o   Public
   - o   Private

7. **Name of Institution: _____**

8. **I consider my current place of residence as:**
   - o   Urban
   - o   Semi-Urban
   - o   Rural
   - o   Others: _____

Appendix F: Univariate Outliers Detected through Boxplot for Pilot Study
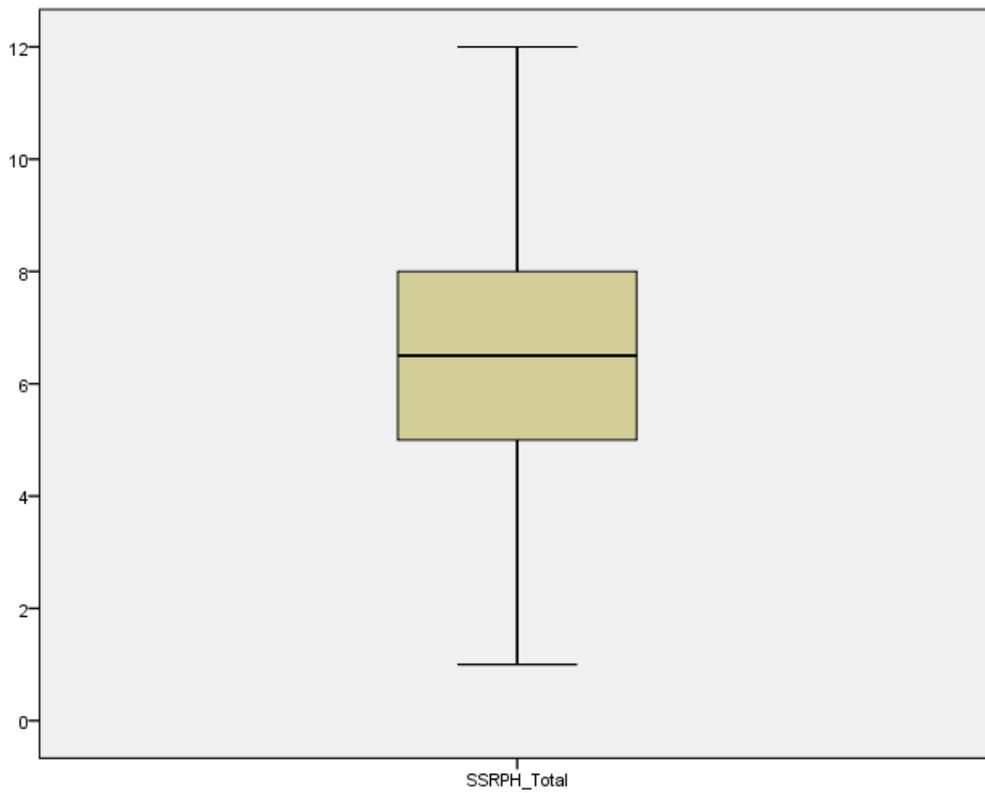
Figure 4. First round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during pilot study.
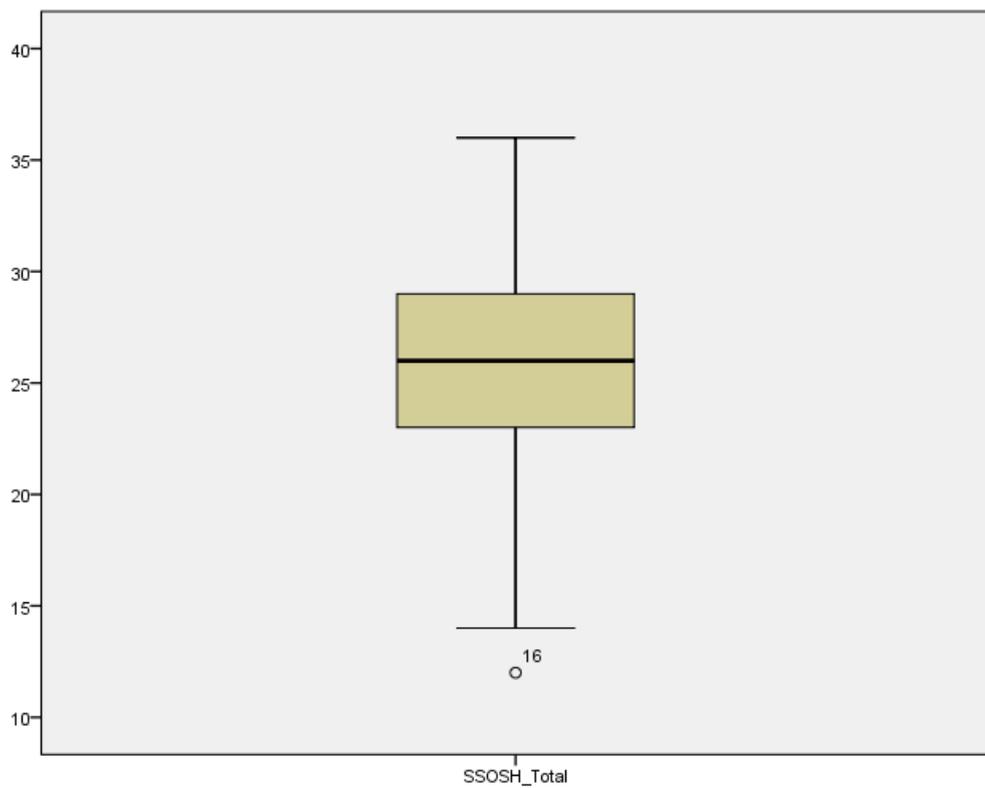

Figure 5. First round of outliers detected for Self-stigma of Seeking Help (SSOSH) during pilot study.
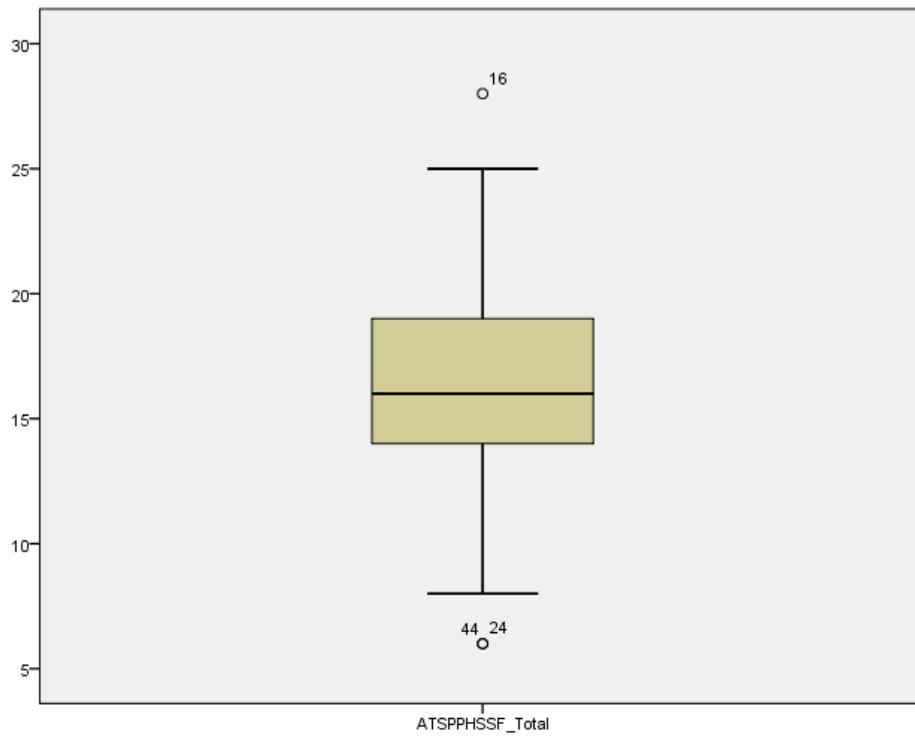
Figure 6. First round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during pilot study.
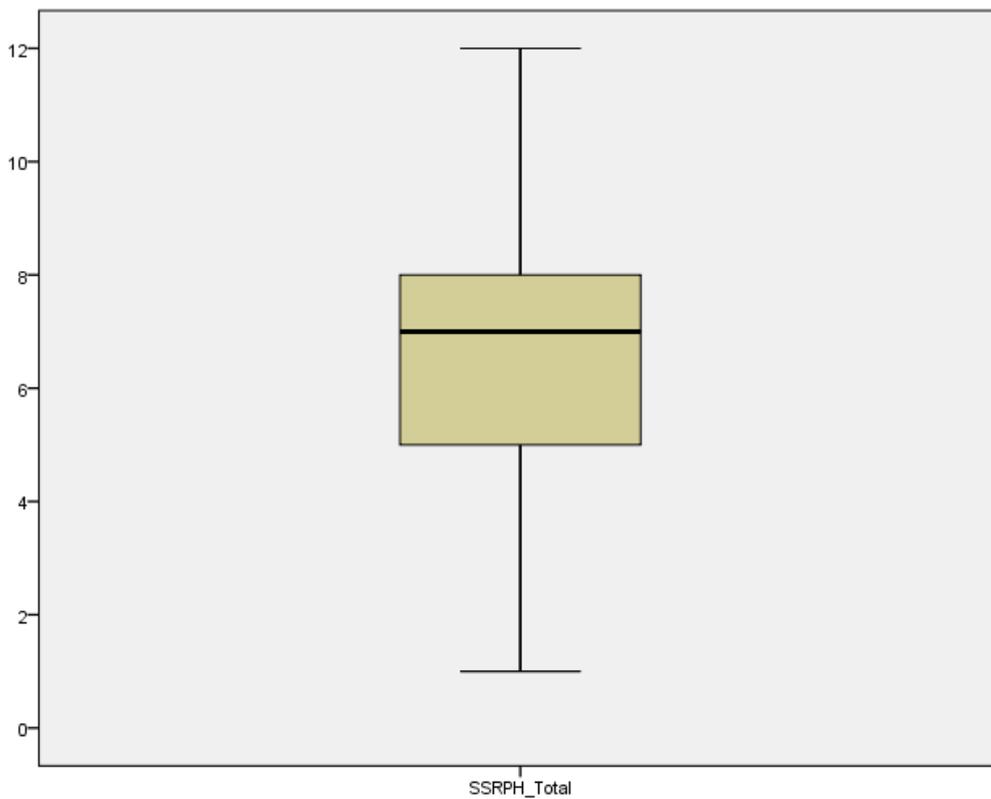
Figure 7. Second round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during pilot study.
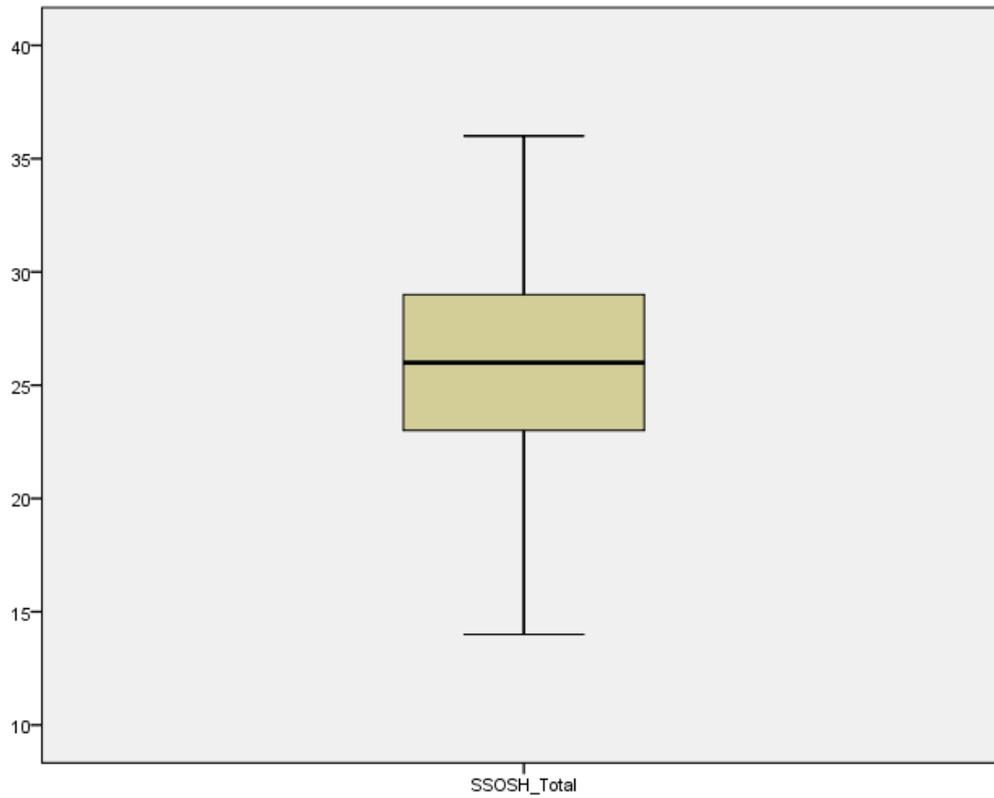
Figure 8. Second round of outliers detected for Self-stigma of Seeking Help (SSOSH) during pilot study.
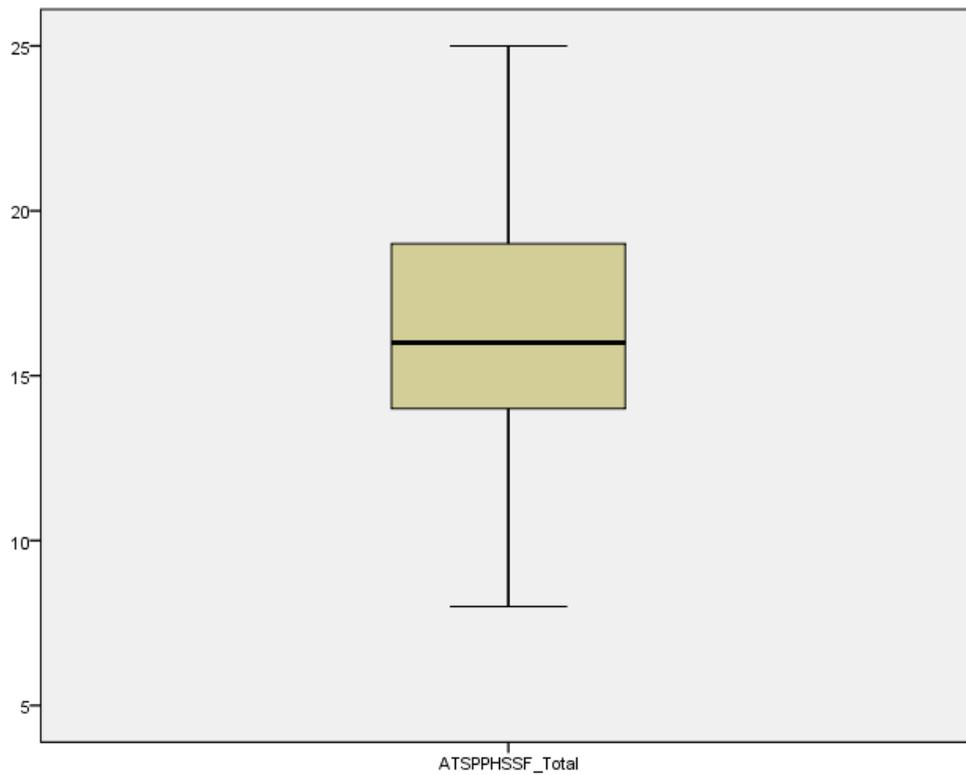
Figure 9. Second round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during pilot study.

Appendix G: Univariate Outliers Detected through Boxplot for Actual Study
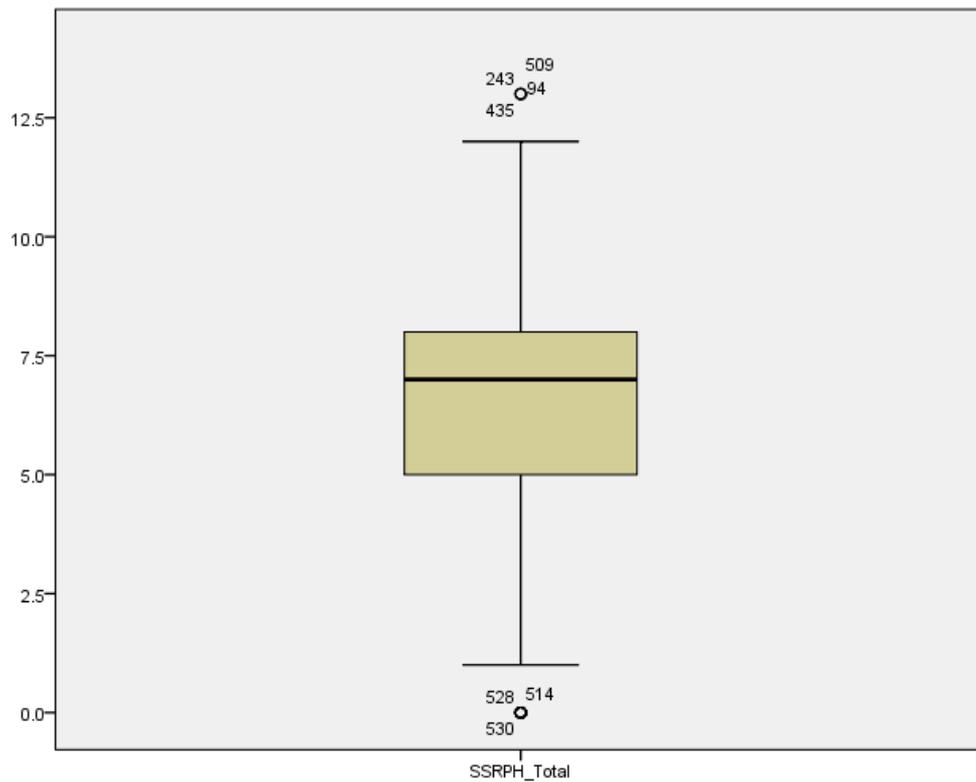
Figure 10. First round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during actual study.
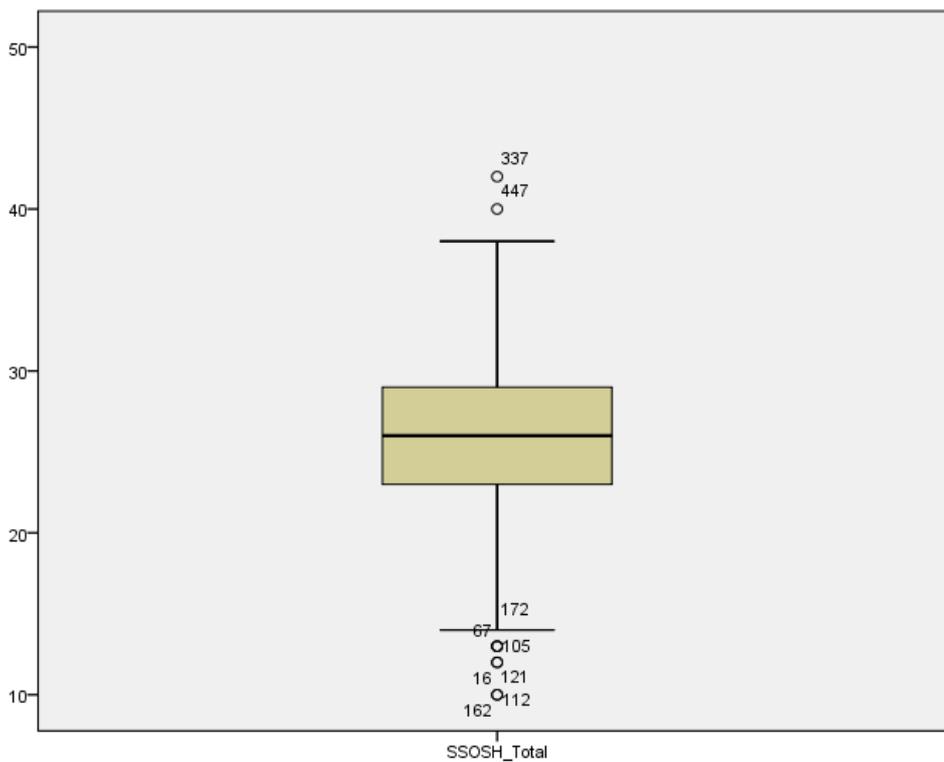
*Figure 11.* First round of outliers detected for Self-stigma of Seeking Help (SSOSH) during actual study.
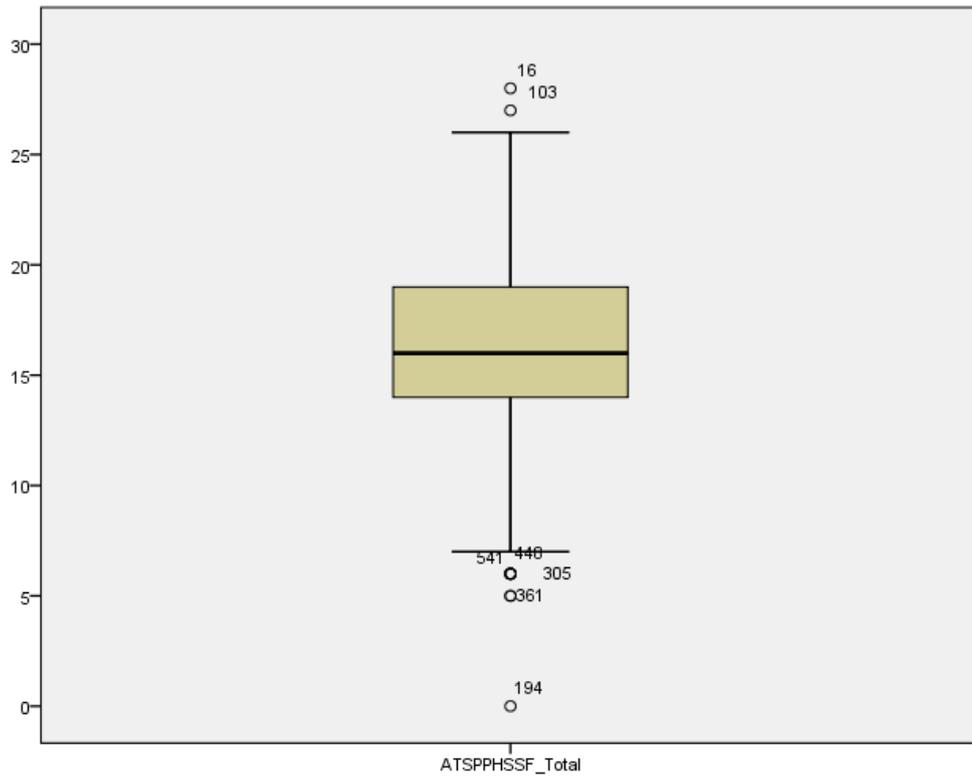
Figure 12. First round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during actual study.
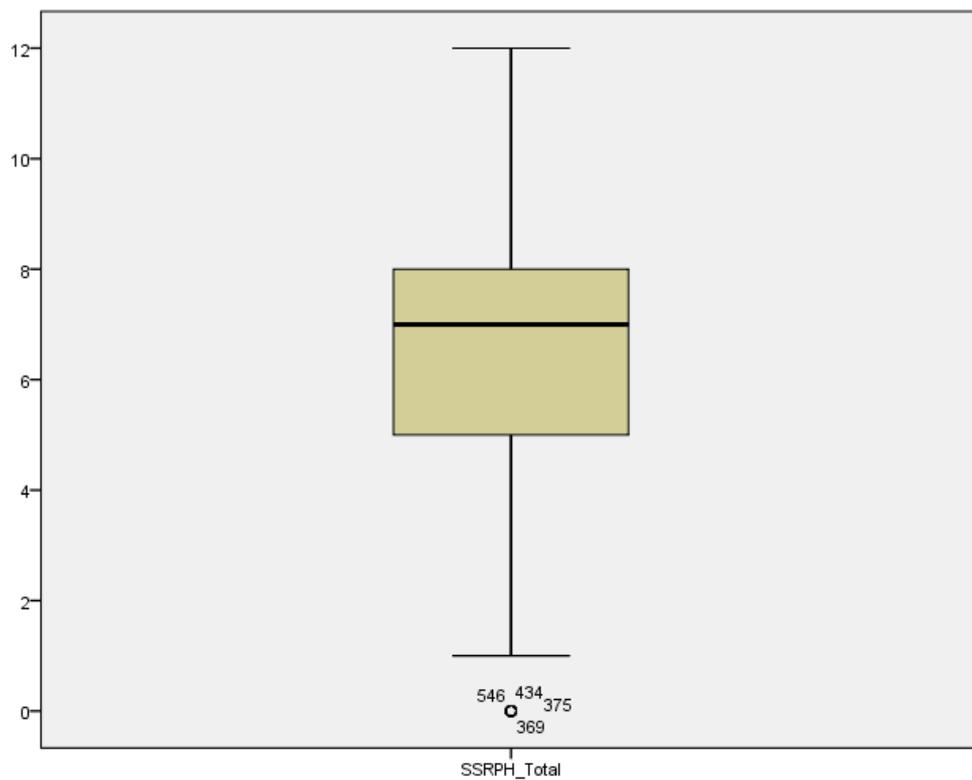

Figure 13. Second round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during actual study.
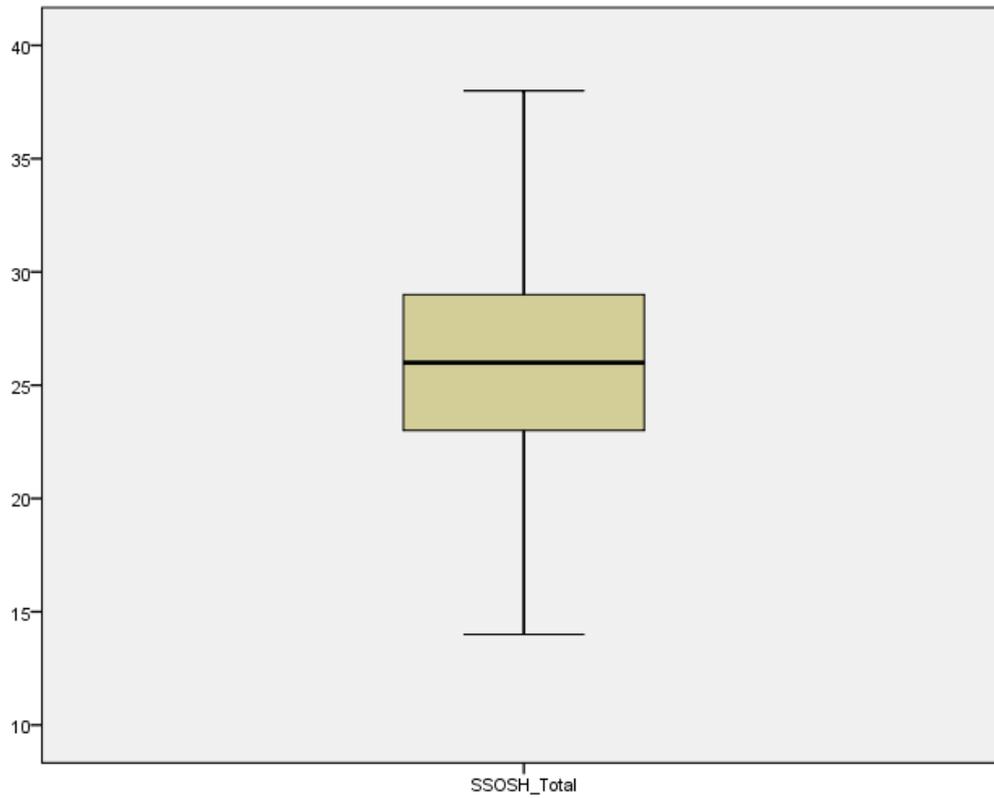
Figure 14. Second round of outliers detected for Self-stigma of Seeking Help (SSOSH) during actual study.
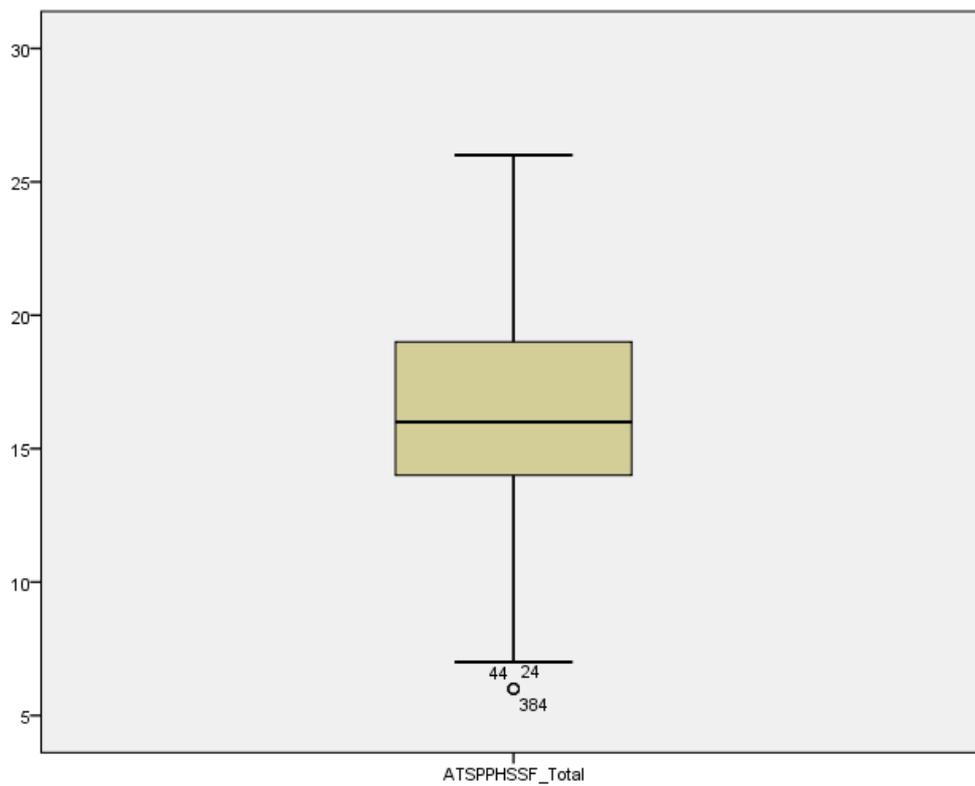
Figure 15. Second round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during actual study.
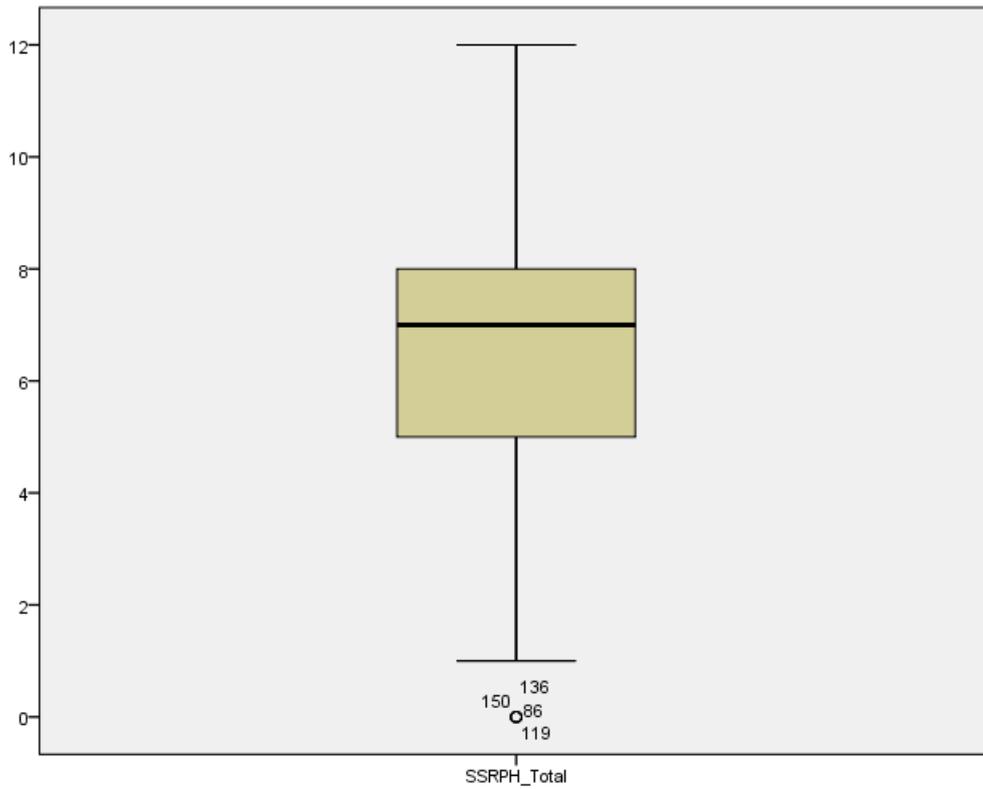
Figure 16. Third round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during actual study.
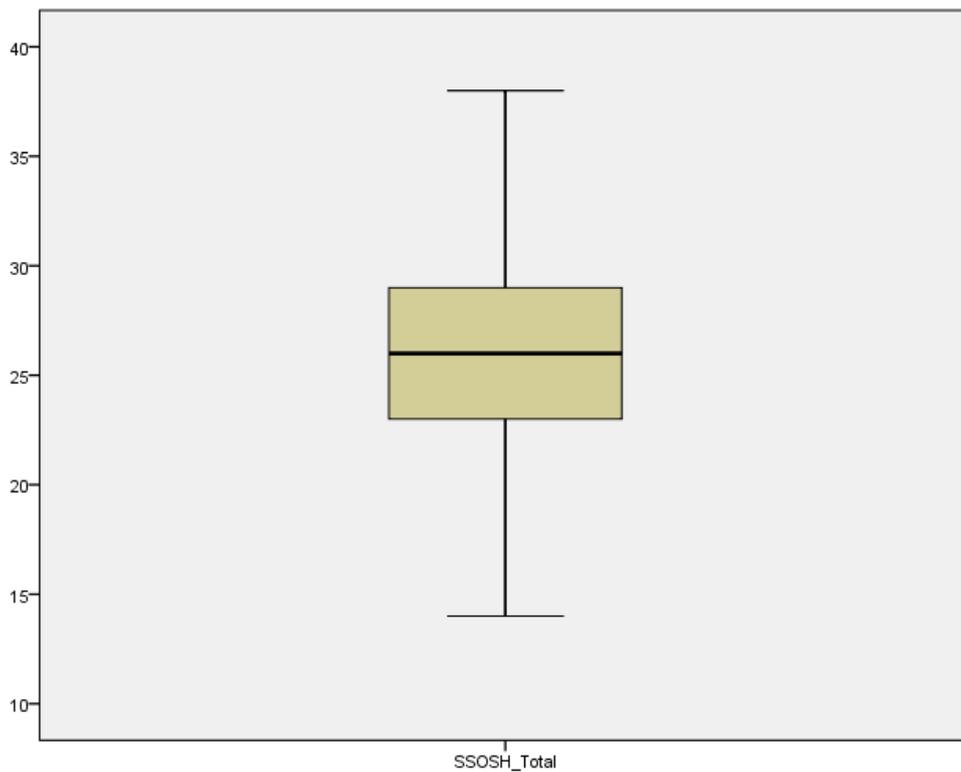
*Figure 17.* Third round of outliers detected for Self-stigma of Seeking Help (SSOSH) during actual study.
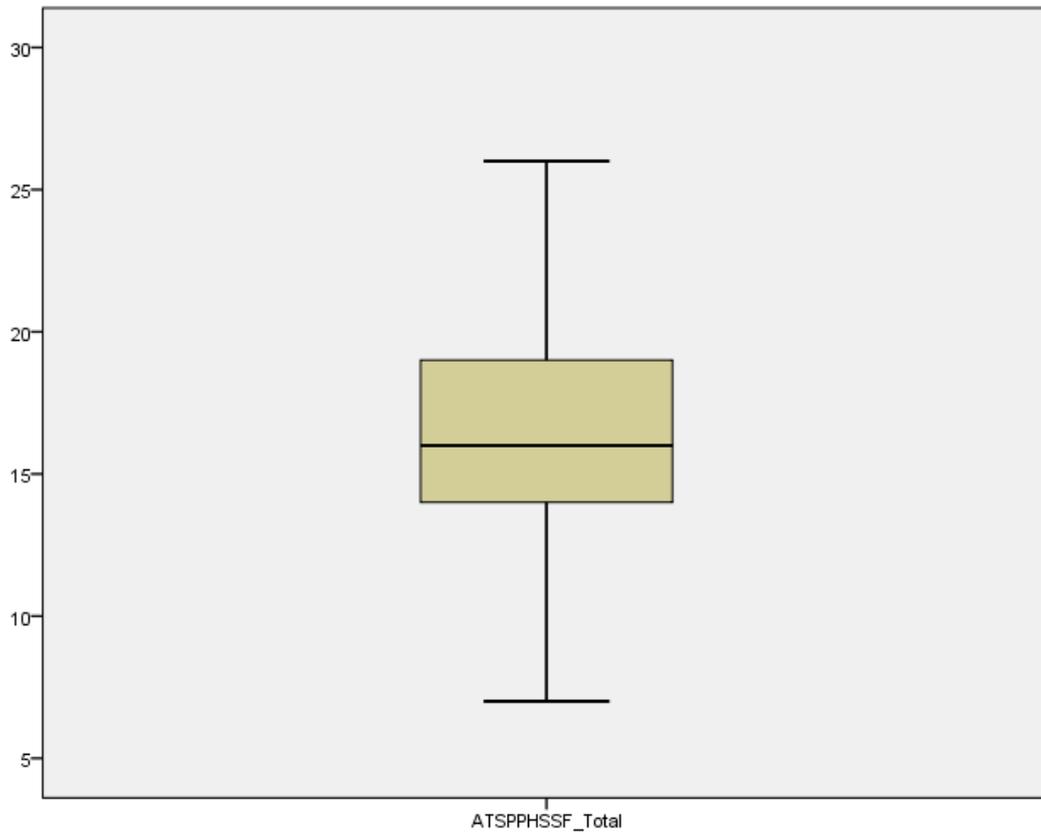
Figure 18. Third round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during actual study.
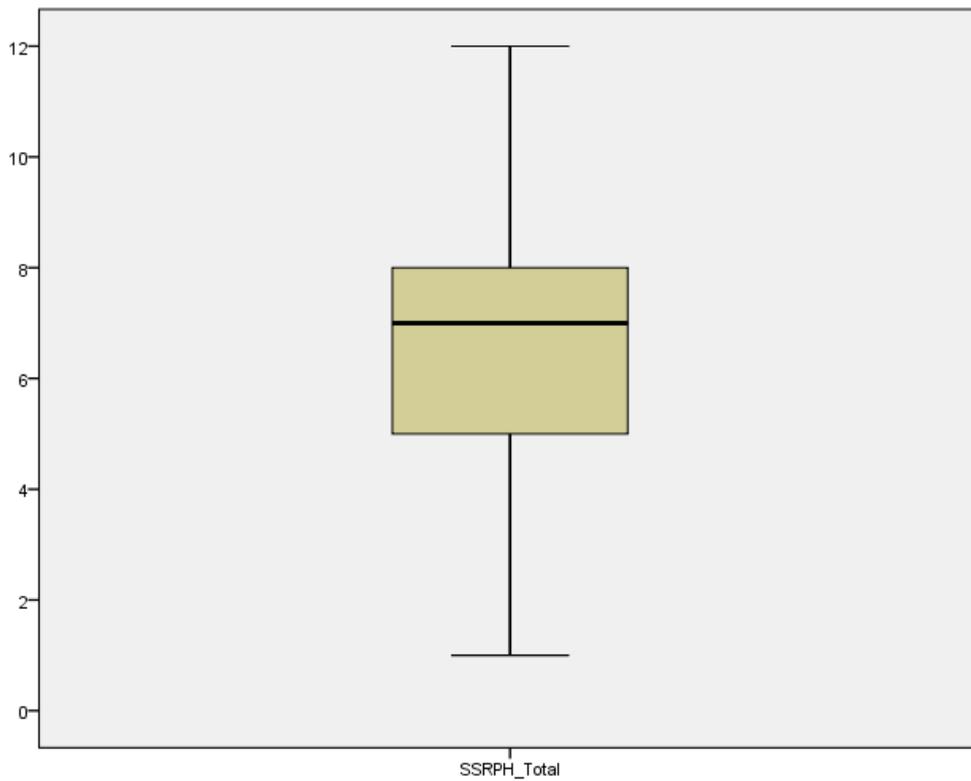

Figure 19. Fourth round of outliers detected for Social Stigma of Receiving Psychological Help (SSRPH) during actual study.
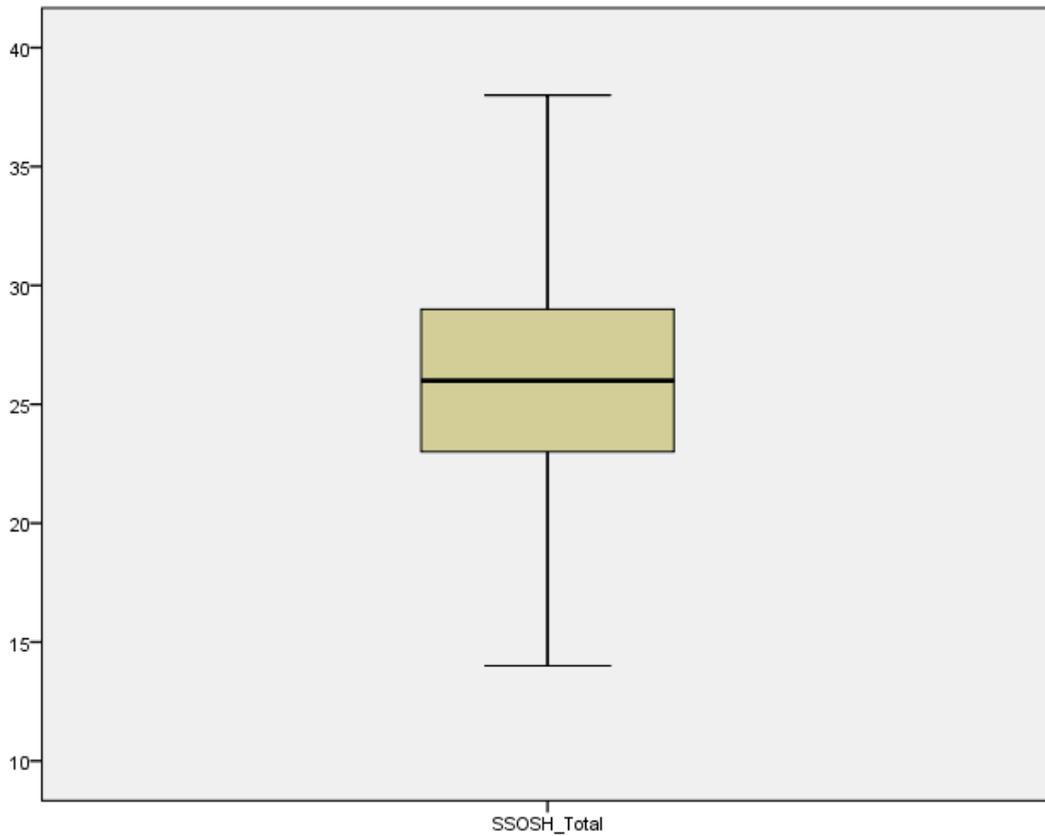
*Figure 20.* Fourth round of outliers detected for Self-stigma of Seeking Help (SSOSH) during actual study.
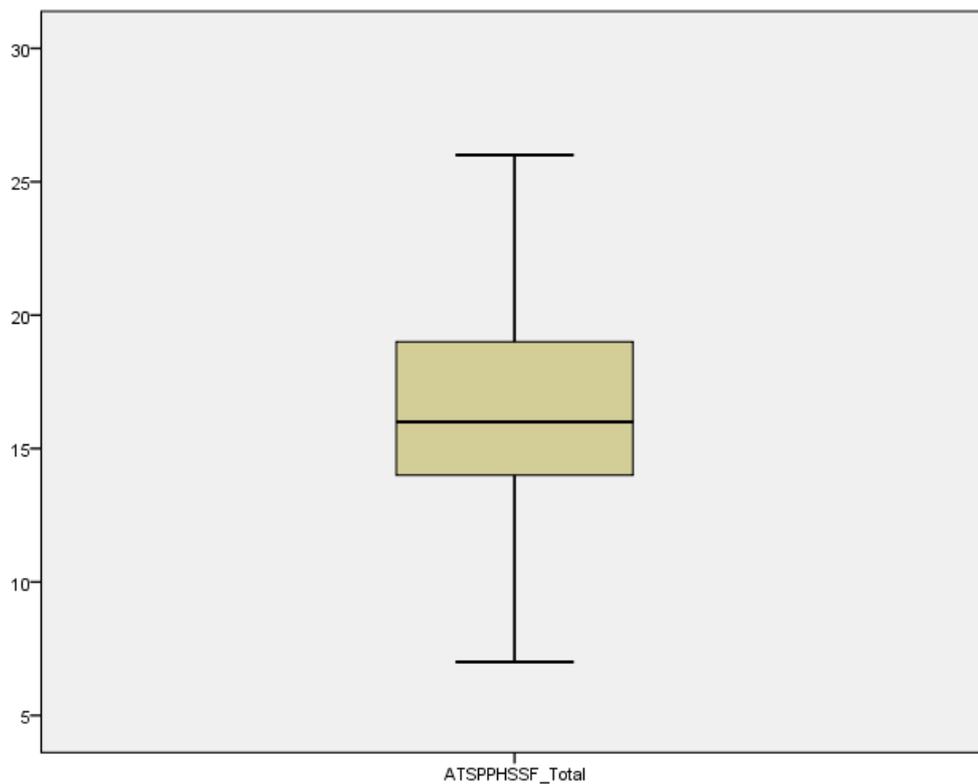
Figure 21. Fourth round of outliers detected for Attitudes toward Seeking Professional Psychological Help Scale: Short Form (ATSPPHS-SF) during actual study.

Appendix H: Assessing Normality, Linearity, and Homoscedasticity using Scatterplot

Scatterplot

Dependent Variable: ATSPPHSSF_Total
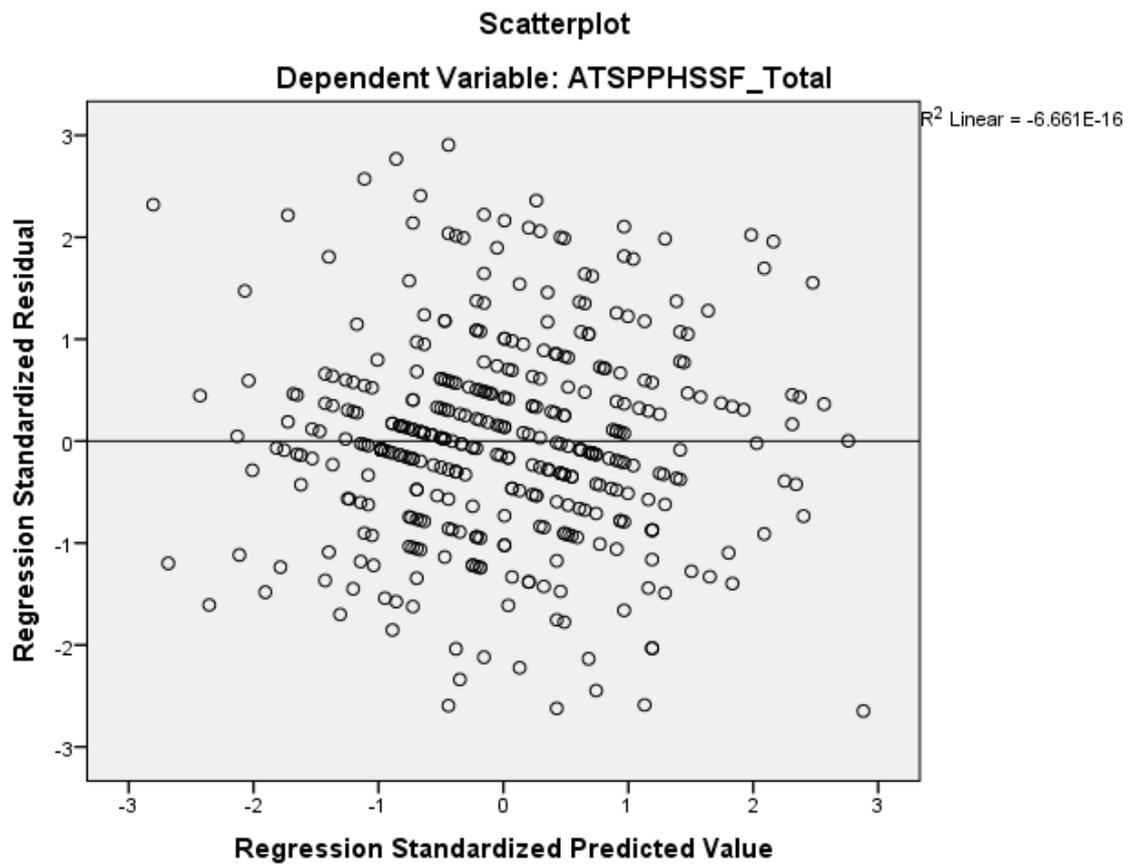
Figure 16. A fit line was added to the scatterplot of the regression standardized residual over regression standardized predicted value based on attitudes toward mental health help-seeking.

Appendix I: SPSS Output of Multiple Linear Regression

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING PAIRWISE
  /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT ATSPPHSSF_Total
  /METHOD=ENTER SSRPH_Total SSOSH_Total
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS DURBIN NORMPROB(ZRESID)
  /CASEWISE PLOT(ZRESID) OUTLIERS(3)
  /SAVE ZPRED MAHAL COOK LEVER ZRESID.
```

Regression

[DataSet1] C:\Users\alextwh\Documents\UAPZ3023 Final Year Project II\Actual Study (Version 2)\Examine Mental Health Seeking Attitudes among University Students in Malaysia_Actual Study (388 Responses) - MLR & Mediation.sav

Descriptive Statistics

	Mean	Std. Deviation	N
ATSPPHSSF_Total	16.5180	3.66733	388
SSRPH_Total	6.6804	2.30513	388
SSOSH_Total	26.0825	4.33821	388

Correlations

		ATSPPHSSF_Total	SSRPH_Total	SSOSH_Total
Pearson Correlation	ATSPPHSSF_Total	1.000	-.143	-.342
	SSRPH_Total	-.143	1.000	.358
	SSOSH_Total	-.342	.358	1.000
Sig. (1-tailed)	ATSPPHSSF_Total	.	.002	.000
	SSRPH_Total	.002	.	.000
	SSOSH_Total	.000	.000	.
N	ATSPPHSSF_Total	388	388	388
	SSRPH_Total	388	388	388
	SSOSH_Total	388	388	388

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SSOSH_Total, SSRPH_Total[b]	.	Enter

a. Dependent Variable: ATSPPHSSF_Total

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.343[a]	.118	.113	3.45353	.118	25.699

Model Summary^b

Model	Change Statistics			Durbin-Watson
	df1	df2	Sig. F Change	
1	2[a]	385	.000	1.724

a. Predictors: (Constant), SSOSH_Total, SSRPH_Total

b. Dependent Variable: ATSPPHSSF_Total

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	613.026	2	306.513	25.699	.000[b]
	Residual	4591.848	385	11.927		
	Total	5204.874	387			

a. Dependent Variable: ATSPPHSSF_Total

b. Predictors: (Constant), SSOSH_Total, SSRPH_Total

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.134	1.079		22.365	.000
	SSRPH_Total	-.038	.082	-.024	-.465	.642
	SSOSH_Total	-.282	.043	-.334	-6.515	.000

Coefficients[a]

Model		95.0% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	22.013	26.256			
	SSRPH_Total	-.198	.122	-.143	-.024	-.022
	SSOSH_Total	-.367	-.197	-.342	-.315	-.312

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	SSRPH_Total	.872	1.147
	SSOSH_Total	.872	1.147

a. Dependent Variable: ATSPPHSSF_Total

Coefficient Correlations[a]

Model			SSOSH_Total	SSRPH_Total
1	Correlations	SSOSH_Total	1.000	-.358
		SSRPH_Total	-.358	1.000
	Covariances	SSOSH_Total	.002	-.001
		SSRPH_Total	-.001	.007

a. Dependent Variable: ATSPPHSSF_Total

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	SSRPH_Total	SSOSH_Total
1	1	2.923	1.000	.00	.01	.00
	2	.064	6.748	.08	.96	.05
	3	.013	14.851	.91	.02	.95

a. Dependent Variable: ATSPPHSSF_Total

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	12.9899	20.1444	16.5180	1.25859	388
Std. Predicted Value	-2.803	2.881	.000	1.000	388
Standard Error of Predicted Value	.177	.671	.289	.093	388
Adjusted Predicted Value	12.7893	20.4175	16.5177	1.25873	388
Residual	-9.14435	10.03539	.00000	3.44460	388
Std. Residual	-2.648	2.906	.000	.997	388
Stud. Residual	-2.687	2.910	.000	1.001	388
Deleted Residual	-9.41753	10.06643	.00035	3.47268	388
Stud. Deleted Residual	-2.709	2.939	.000	1.005	388
Mahal. Distance	.025	13.614	1.995	2.086	388
Cook's Distance	.000	.072	.003	.006	388
Centered Leverage Value	.000	.035	.005	.005	388

a. Dependent Variable: ATSPPHSSF_Total

Charts

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: ATSPPHSSF_Total

Scatterplot
Dependent Variable: ATSPPHSSF_Total
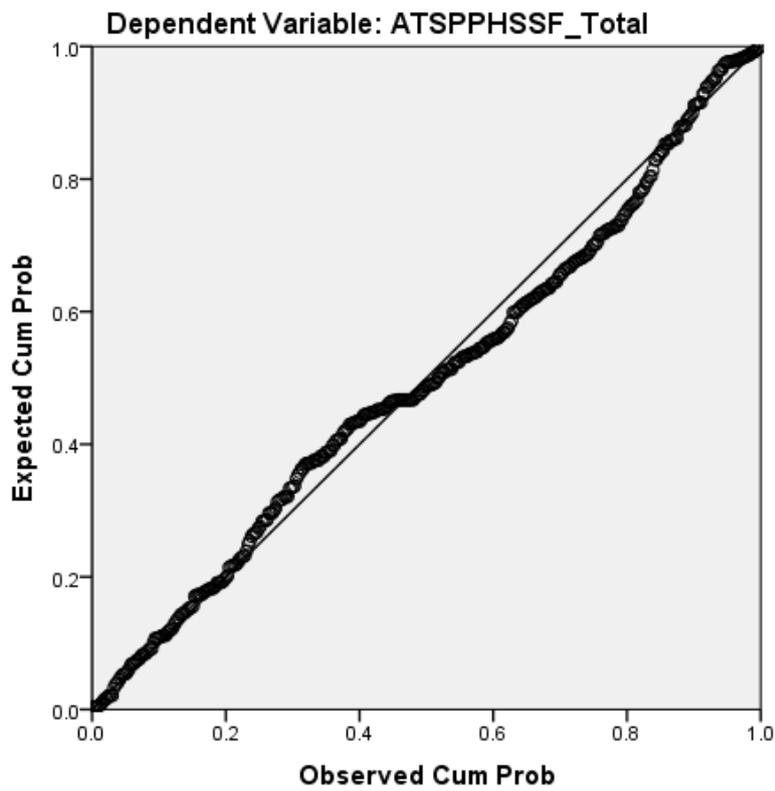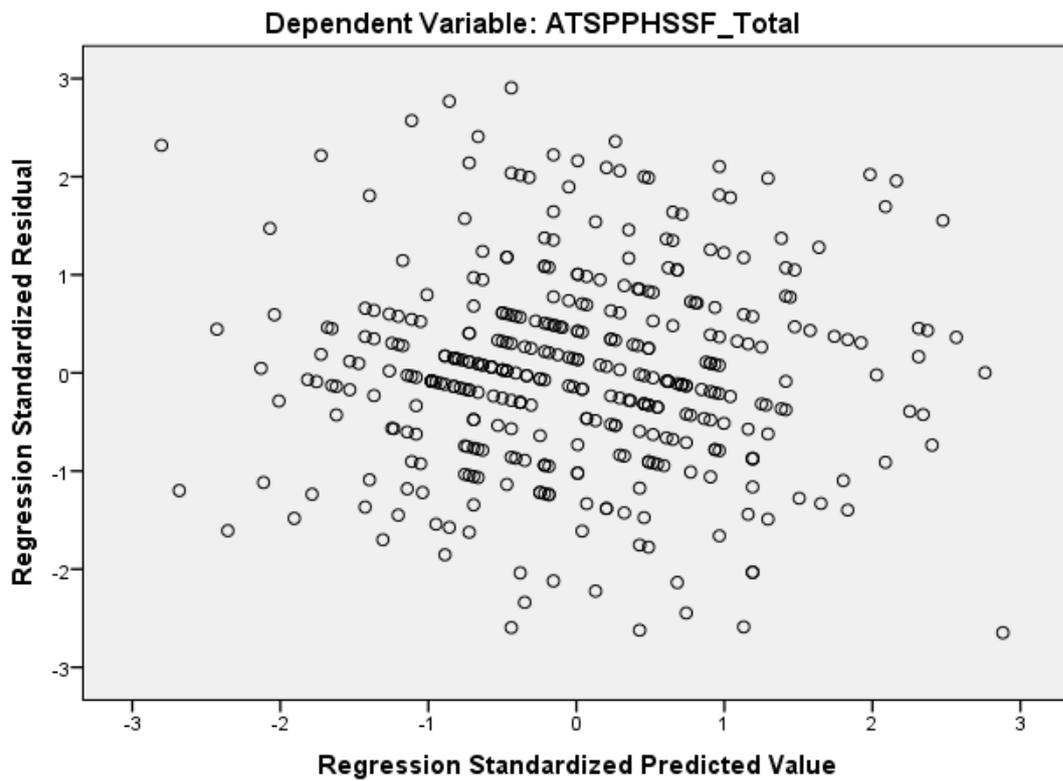
Appendix J: SPSS Output of Mediation Analysis using Hayes' PROCESS Macro Model 4

```
DATASET ACTIVATE DataSet1.

/* PROCESS version 3.3 */.
/* Written by Andrew F. Hayes */.
/* www.afhayes.com */.
/* www.processmacro.org */.
/* Copyright 2019 by Andrew F. Hayes */.
/* Documented in http://www.guilford.com/p/hayes3 */.
/* PROCESS workshop schedule at http://www.processmacro.org/workshops.html
*/.

/* Distribution of this code in any form, except through processmacro.org,
is prohibited */.
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/* THIS SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND */.
/* EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF */.
/* MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT */.
/* IN NO EVENT SHALL THE COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, */.
/* DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT */.
/* OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE */.
/* SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE */.
/* USE OF THIS SOFTWARE IMPLIES AGREEMENT WITH THESE TERMS */.

set printback=off.
```

Matrix

```
[DataSet1] C:\Users\alextwh\Documents\UAPZ3023 Final Year Project II\Actual
Study (Version 2)\Examine Mental Health Seeking Attitudes among University
Students in Malaysia_Actual Study (388 Responses) - MLR & Mediation.sav

Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Version 3.3 *******************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : ATSPPHSS
    X  : SSRPH_To
    M  : SSOSH_To

Sample
Size:  388

**************************************************************************
OUTCOME VARIABLE:
 SSOSH_To

Model Summary
          R        R-sq        MSE          F         df1         df2
p
      .3577       .1279    16.4549    56.6263      1.0000
386.0000       .0000
```

```
Model
              coeff         se          t          p        LLCI        ULCI
constant    21.5856      .6321    34.1505      .0000     20.3429     22.8284
SSRPH_To      .6731      .0895     7.5250      .0000       .4973       .8490

Standardized coefficients
            coeff
SSRPH_To     .3577

Covariance matrix of regression parameter estimates:
          constant    SSRPH_To
constant      .3995      -.0535
SSRPH_To     -.0535       .0080

*************************************************************************
OUTCOME VARIABLE:
 ATSPPHSS

Model Summary
         R       R-sq        MSE          F        df1         df2
p
      .3432      .1178    11.9269    25.6994      2.0000
385.0000      .0000

Model
              coeff         se          t          p        LLCI        ULCI
constant    24.1344     1.0791    22.3648      .0000     22.0127     26.2562
SSRPH_To     -.0379      .0816     -.4651      .6421      -.1983       .1224
SSOSH_To     -.2823      .0433    -6.5145      .0000      -.3675      -.1971

Standardized coefficients
            coeff
SSRPH_To    -.0238
SSOSH_To    -.3339

Covariance matrix of regression parameter estimates:
          constant    SSRPH_To    SSOSH_To
constant    1.1645      -.0115      -.0405
SSRPH_To     -.0115       .0067      -.0013
SSOSH_To     -.0405      -.0013       .0019

************************ TOTAL EFFECT MODEL *************************
OUTCOME VARIABLE:
 ATSPPHSS

Model Summary
         R       R-sq        MSE          F        df1         df2
p
      .1433      .0205    13.2073     8.0908      1.0000
386.0000      .0047

Model
              coeff         se          t          p        LLCI        ULCI
constant    18.0409      .5663    31.8589      .0000     16.9275     19.1543
SSRPH_To     -.2280      .0801    -2.8444      .0047      -.3855      -.0704

Standardized coefficients
            coeff
SSRPH_To    -.1433
```

```
Covariance matrix of regression parameter estimates:
          constant   SSRPH_To
constant     .3207     -.0429
SSRPH_To    -.0429      .0064
```

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

```
Total effect of X on Y
    Effect        se         t          p        LLCI       ULCI
c_ps       c_cs
    -.2280     .0801    -2.8444     .0047     -.3855     -.0704      -
.0622    -.1433
```

```
Direct effect of X on Y
    Effect        se         t          p        LLCI       ULCI
c'_ps      c'_cs
    -.0379     .0816     -.4651     .6421     -.1983      .1224      -
.0103    -.0238
```

```
Indirect effect(s) of X on Y:
            Effect    BootSE   BootLLCI   BootULCI
SSOSH_To    -.1900     .0390     -.2714     -.1173
```

```
Partially standardized indirect effect(s) of X on Y:
            Effect    BootSE   BootLLCI   BootULCI
SSOSH_To    -.0518     .0103     -.0731     -.0325
```

```
Completely standardized indirect effect(s) of X on Y:
            Effect    BootSE   BootLLCI   BootULCI
SSOSH_To    -.1194     .0239     -.1681     -.0749
```

*********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  10000

NOTE: Variables names longer than eight characters can produce incorrect output.
      Shorter variable names are recommended.

------ END MATRIX -----

SAVE OUTFILE='C:\Users\alextwh\Documents\UAPZ3023 Final Year Project
II\Actual Study (Version '+
   '2)\Examine Mental Health Seeking Attitudes among University Students
in Malaysia_Actual Study '+
   '(388 Responses) - MLR & Mediation - Updated.sav'
  /COMPRESSED.