Know It Now: The Effects of Brief Mental Health Workshop on Secondary School Students

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Declaration

We hereby declare that the report entitled “Know It Now: The Effects of Brief Mental Health Workshop on Secondary School Students” submitted is written by us and is our own effort and that no part has been plagiarized without citations.

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This research paper attached here, entitled “Know It Now: The Effects of Brief Mental Health Workshop on Secondary School Students” prepared and submitted by “Tan Sin Yee, and Phang Jin Xiang” in partial fulfilment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

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Abstract

The prevalence of mental health issues among the secondary school students is increasing. Past studies illustrated that one in five adolescents is living with mental health issue. There are numerous findings highlighted the urgent need of delivery mental health related information to this target group to cultivate prevention or encouragement of early intervention. This research aimed to examine the effectiveness of brief mental health workshop on mental health literacy in the areas of mental health knowledge, mental illness stigma, and health seeking behaviour from mental health professionals among the secondary school students in Malaysia. This research was conducted by using quasi-experimental pretest posttest design on a brief mental health workshop among 94 students from an independence high school aged 16 to 19. Our findings indicated a significant increase in mental health knowledge ($p < .001$) and a significant decrease in mental illness stigma ($p < .001$), however, no significant difference was shown for help-seeking behaviour between the pretest and posttest. Males ($M = 8.41$, $SD = 2.91$) and females ($M = 6.78$, $SD = 2.76$) differ significantly in the pretest for mental illness stigma, $t(92) = 2.75$, $p < .01$. This study showed that a brief mental health workshop is viable to improve mental health knowledge and reduce mental illness stigma. This study provides evidence that a brief mental health workshop can elicit positive impacts in mental health literacy on Malaysian adolescents which born in a multiracial and multicultural context.

Keywords: mental health, brief mental health workshop, mental health literacy

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List of Abbreviations

ATSPPH……. Attitudes Toward Seeking Professional Psychological Help Scale

ATSPPH-SF... Attitudes Toward Seeking Professional Psychological Help Scale – Short-Form

CI…… Confident Interval

d……. Effect size

df…… Degree of freedom

DV……. Dependent Variable

M…… Mean

MAKS…… Mental Health Knowledge Schedule

MHL…….. Mental Health Literacy

n……. Number of respondents

NHMS…… National Health and Morbidity Survery

p……. Significance level

r…….. Correlation coefficient

SD…….. Standard Deviation

SPSS…….. Statistical Package for Social Science

t…….. Test statistic

WHO…….. World Health Organization

Chapter 1 Introduction

Background of Study

World Health Organization (WHO) (2017) described that depression and anxiety disorders are relatively high in prevalence, particularly depression being the prior cause of global disease burden and disability. WHO claimed that there were more than 300 million people suffer from depression in 2015, amounted a 4.4% of world's population, and the similar goes for anxiety disorders (WHO, 2017). In Malaysia context, by 2015 there were more than one million total cases reported on depressive disorders and almost one and a half million total cases reported on anxiety disorders, equivalent to 3.8% and 4.9% of the nation population respectively (WHO, 2017).

Besides, the National Health and Morbidity Survey (NHMS) was reported that the pervasiveness of mental health issues for Malaysians aged 16 and above by 2015 was around 30% of the population from only 10.7% in 1996 (NHMS, 2017), this group of people are required immediate attention or remedial actions (Ministry of Health Malaysia, 2016). Lee and Syaid (2017) mentioned that there an is issue concerning the increase in mental health issues among students and they added the core factor is pressure exerted by academic and environmental causes which can result in depression, anxiety, insomnia, suicidal ideation.

Studies show that approximately one out of five adolescents may live with mental health issue especially depression or anxiety in any particular year, and it has been discovered that adolescents with depression are more likely to have suicidal ideation (Ibrahim, Mohd Sidik, Phang, Mukhtar, Awang, Ang, Osman, & Ab Ghaffar, 2017; Burns & Rapee, 2006), and suicide is the second risk factor of death for youth who aged 15 to 29 years old (Ibrahim et al., 2017). Experiencing of mental illness in childhood or adolescence is the risk factor for several more serious mental illnesses in the later development (Copeland, Adair, Smetanin, Stiff, Briante, Colman, Fergusson, Horwood, Poulton, Costello, & Angold, 2013). According

to the findings reported by NHMS (2017) showed that prevalence of mental health problems among individuals in their adolescence in Malaysia was approximately 20% for depression, 40% for anxiety, and 10% for stress and boys showed a relatively higher 18.9% of prevalence compared to girls which were 17.7% for depression whereas girls amounted higher in anxiety and stress. Mental health issues among children trigger distress and may result in wide-ranging effects such as impacts on academic completion, interpersonal relationship, influencing life chances and physical health related issue (Goodman, Joyce, & Smith, 2011).

In terms of risk of depression, students hold a higher risk as compare to the general public because of stressful academic events and financial problems encountered while pursuing their tertiary study (Khan, Sulaiman, & Hassali, 2010). Because depression is common, treatable, and may begin early in life, thus, the best opportunity for prevention is among young people (Swartz, Musci, Beaudry, Heley, Miller, Alfes, Townsend, Thornicroft, & Wilcox, 2017). Burns and Rapee (2006) claimed that there is a pressing need to increase the young person's help seeking behaviour and the ability to determine who they should seek help from.

In terms of mental health literacy, a finding from Yeap and Low (2009) mentioned that the majority of their respondents from Malaysia did not have good knowledge of mental health. They also described that Malaysians are not well informed regarding the mental health services and having inadequate ability to acknowledge the need for seeking help from the right professionals such as psychiatrist and clinical psychologist. The previous study conducted by Loo, Wong, and Furnham (2012) showed that there was only a small number of Malaysian participants endorsed professional help as the majority was unable to recognize the problem as mental illness. Swartz et al. (2017) describe that health awareness programmes in institutions are an effective way in correcting young people' perspective about mental health

matters and improving intention for help-seeking, the ideas to educate to the children during programmes are potentially extensive in penetration to the community.

The increase in mental health problems and the elevation of prevalence and reporting of psychiatric cases in developing countries are a result of increased social changes, for instance, Malaysia has undergone robust economic growth in recent decades, in regard to this, mental illness stigma is one of the inevitable causes of increased social changes (Loo et al., 2012). Public stigma for mental illness such as depression is serious and presents in many countries, for instance, people usually hold negative attitudes toward people with depression, negatively view about their personalities, and even refuse to have contact with them, and this phenomenon appeared to be severe in Japan (Han & Chen, 2014). The more people think mental health issue is stem from insufficient willpower and weak cognitive functioning, the more unwillingness they will in building a close relationship with people with a mental health issue in their daily lives (Han & Chen, 2014).

Han and Chen (2014) described that by referring to Weiner's attribution theory, those who suffer from stigma encounter more negative emotional and behavioural reactions from other individuals when they view to see their problems as their own responsibility. Educate the causes of mental illness with biological and genetic attribution, for instance, convey the fact that major depression are biologically based brain diseases can reduce the people's psychological blameworthy attitudes and desire for social distance towards individuals with depression (Han & Chen, 2014), as well as improve help-seeking behaviours and treatment compliance (Tay, Tay, & Klainin-Yobas, 2018).

Although Malaysia has done significant improvement in its mental care system and policies (Deva, 2004), however, there is still insufficient public awareness on mental health issue and the possible reasons might be the adherence to traditional cultural belief and practices, particularly the publics from rural areas, moreover, it may also happen because of

the shortage in accessibility of mental health services and insufficient mental health professionals (Loo et al., 2012).

There are few explanations that can explain why we need to concern about the adolescent emerging to the young adults. The issues of adolescent and emerging adult can be categorized into two parts which are internalizing or externalizing. Internalizing problems happen when people turn their troubles inward. The instances of the internalizing problem are anxiety and depression. Adversely, when individuals turn their troubles outward are called externalizing problem. The instance of an externalizing issue is juvenile delinquency. The interaction between biological, psychological, and social factors to trigger the problems that adolescents, emerging adults establish is known as the Biopsychosocial approach (Santrock, 2013).

Students who after graduate from the high school, might face many issues in the world, such as work, further studies, and many problems that might be encounter. Moreover, providing an appropriate education might help the students to give an idea of how to cope with stress, depression or other mental illnesses.

Statement of Problem

Mental health literacy (MHL) has developed into a tool to improve the recognition of mental illnesses (Gulliver, Griffiths, & Christensen, 2010), as well as prevention and treatment (Tay et al., 2018). Past studies mentioned that there is a pressing need to implement mental health programs for young people, particularly in the improvement of knowledge, stigma reduction and promotion for intentions of help-seeking (Campos, Dias, Duarte, Veiga, Dias, Palha, 2018; Ibrahim et al., 2017; Kutcher, Wei, Costa, Gusmão, Skokauskas, & Sourander, 2016; Campos, L., Dias, P., Duarte, A., Veiga, E., Dias, C., & Palha, F. 2017).

Previous studies showed that promoting MHL in secondary school population through education workshops have a significant reduction of stigma, improvement in knowledge

about mental health in Hong Kong (Chan, Mak, & Law, 2009), Western countries (Naylor, Cowie, Walters, Talamelli, & Dawkins, 2009; Essler, Arthur & Stickley, 2006) and help-seeking behaviour in Western context (Wright, McGorry, & Harris, 2006; Rickwood, Cavanagh, Curtis, & Sakrouge, 2004). However, secondary school students in Malaysia are moderately ignore the mental health problem, and the mental health awareness and wellbeing promotion are still inadequate in Malaysia (Nik Mustafa, Habil, Ibrahim, & Hassan, 2015). Ke et al. (2015) illustrated that even a brief one-hour workshop can effectively reduce mental illness stigma to the aspect of desire for social distance. Past study by Perry, Petrie, Buckley, Cavanagh, Clarke, Winslade, Hadzi-Pavlovic, Manicavasagar, and Christensen (2014) showed significant improvement in MHL and decreased stigma in adolescents by implementing a school-based education program in a randomised controlled trial experiment.

Besides, a study conducted by Yeap and Low (2009) described that many Malaysians did not have sufficient knowledge of mental health and they suggest the ability to recognise specific and common mental problems such as early signs and symptoms, interventions, copping strategies and etc. should be conveyed to the public to promote better understanding. The poor MHL can cause the mental disorder being poorly recognized and the delay of treatment (Tay et al., 2018). Mental health literacy is especially important to adolescent as it shows direct effect to early recognition and intervention of mental health problems, moreover, age of 14 is the onset age for half of mental health illnesses and a 75% increase in prevalence by age of 24 (Attygalle, Perera, & Jayamanne, 2017).

Adolescence is an essential stage of risk for the onset of psychiatric symptoms (Yamaguchi et al., 2011; Nik Mustafa et al., 2015), particularly the first onset of depression (Stange, Connolly, Taylor, Hamilton, Hamlat, & Abramson, 2016). However, there are only a few related studies conducted with Malaysian youth (Ibrahim et al., 2017; Amit, Ibrahim, Mohd Jaladin, & Che Din, 2017; Lee & Syaid, 2017; Latiff, Tajik, Ibrahim, Abubakar, &

Albar Ali, 2016; Choon, Abu Talib, Yaacob, Awang, Tan, Hassan, & Ismail, 2015; Khan, Sulaiman, & Hassali, 2010; Yaacob, Juhari, Abu Talib, & Uba, 2009) and none of the study related to any practical intervention have done for adolescents in Malaysia. Although there are studies on the effectiveness of different type of mental health intervention in Western context in various age groups (Sampogna, Bakolis, Evans-Lacko, Robinson, Thornicroft, & Henderson, 2017; Gronholm, Henderson, Deb, & Thornicroft, 2017; Thornicoft, Mehta, Clement, Evans-Lacko, Doherty, Rose, Koschorke, Shidhaye, O'Reilly, & Henderson, 2016; Imamura, Kawakami, Tsuno, Tsuchiya, Shimada, & Namba, 2016), and particularly school-based educational workshop for secondary school context (Ke et al., 2015; Chan et al., 2009; Naylor et al., 2009; Hoven, Doan, & Musa, 2008; Essler et al., 2006; Pinfold, Toulmin, Thornicroft, Huxley, Farmer, & Graham, 2003; Pinfold, Stuart, Thornicroft, & Arboleda-Flórez, 2005), but these results cannot be generalized in Malaysian adolescents which born in a multiracial and multicultural context. In this study, we place our attention on high school students, as education is a powerful tool for us to educate the students about mental health awareness, we are going to carry out mental health workshop to convey the important messages to address this issue.

Research Objectives

General objective. This research aimed to examine the effectiveness of brief mental health workshop on mental health literacy in the areas of mental health knowledge, mental illness stigma, and help-seeking behaviour from mental health professionals among the secondary school students in Malaysia.

Specific objectives.

1. To investigate a gender difference in mental health knowledge among secondary school students before attending the workshop.

2. To investigate a gender difference in mental illness stigma among secondary school students before attending the workshop.
3. To investigate a gender difference in help-seeking behaviour among secondary school students before attending the workshop.
4. To determine the effectiveness of a brief mental health workshop in improving knowledge of mental health.
5. To determine the effectiveness of a brief mental health workshop in reducing the stigma for a mental health issue.
6. To determine the effectiveness of a brief mental health workshop in decreasing the stereotype endorsement.
7. To determine the effectiveness of a brief mental health workshop in term of reducing the desire for social distance with someone with a mental health problem.
8. To determine the effectiveness of a brief mental health workshop in enhancing the help-seeking behaviours.

Research Questions

1. Is there a gender difference in the mental health knowledge exists among secondary school students in the pre-test?
2. Is there a gender difference in the mental illness stigma exists among secondary school students in the pre-test?
3. Is there a gender difference in the help-seeking behaviour exists among secondary school students in the pre-test?
4. Is there an improvement in the mental health knowledge after attending the workshop?

5. Is there a reduction in the level of stigma for mental disorders after attending the workshop?
6. Is there a reduction in the stereotype endorsement after attending the workshop?
7. Is there a reduction in the desire for social distance with an individual with mental disorder after attending the workshop?
8. Is there an improvement in the help-seeking behaviour after attending the workshop?

Research Hypotheses

H_1 : There is a gender difference in the mental health knowledge among secondary school students in the pre-test.

H_2 : There is a gender difference in the mental illness stigma among secondary school students in the pre-test.

H_3 : There is a gender difference in the help-seeking behaviour among secondary school students in the pre-test.

H_4 : There is a significant increase in the mental health knowledge before and after attending the workshop.

H_5 : There is a significant decrease in the level of stigma for mental disorders before and after attending the workshop.

H_6 : There is a significant decrease in the level of stereotype endorsement before and after attending the workshop.

H_7 : There is a significant decrease in the level of desire for social distance before and after attending the workshop.

H_8 : There is a significant increase in the level of help-seeking behaviour before and after attending the workshop.

Significance of The Study

Majority of the interventions conducted in adolescent population was led by experts (Pinfold et al., 2005), have duration from two hours (Economou, Louki, Peppou, Gramandani, Yotis, & Stefanis,2012) to few weeks (Schulze, Ritcher-Werling, Matschinger, & Angermeyer, 2003), or combined educational and video-based contact condition to target stigma as well as improve mental health literacy as a whole (Chan et al., 2009; Naylor et al., 2009; Pinfold et al., 2003). These findings illustrated that a mental health workshop in them of educational delivery or combined both education and video-based contact condition (e.g. video of individual with mental health issue) can exhibit positive outcomes in the areas of mental health literacy that we are going to study which are mental health knowledge, mental illness stigma, and help-seeking behaviour.

In the process of literature review, it was noticed that there were limited sources that related to mental health workshop in Malaysia context. Most of the past studies were established in Western country, fewer studies were conducted in Asian countries especially South East Asian countries which Malaysia located. Thus, this study can answer how a brief mental health workshop affects the mental health literacy on Malaysian adolescence which born in a multiracial and multicultural society.

In addition, this study is important in terms of evaluating the effectiveness of this mental health modules as it could be served as a powerful tool to educate the student by raising their awareness towards mental health issues. Besides, this study can understand the effectiveness of mental health workshop on the secondary school students that may accelerate the preventions and encourage early interventions. In a nutshell, this research is important to test the effectiveness of brief mental health workshop as well to examine the knowledge, stigma, and help-seeking behaviour of mental health on secondary school students within the Malaysia context to fill up the knowledge gap.

Conceptual and Operational Definition of Terms

Mental health literacy. Mental health literacy is a term that was first introduced in the past two decades and it defined as "knowledge and beliefs about mental disorders that help them to recognize, manage and prevent" (Jorm, Korten, Jacomb, Christensen, Rodgers, & Pollitt, 1997).

The operational definition of mental health literacy is evaluated by four components mentioned by Kutcher et al. (2016) which are knowledge to gain and maintain positive mental health, knowledge of mental illnesses and its remedies, reduce stigma to mental illnesses, and enhancing intentions for help-seeking. These important criteria of mental health literacy will be measured by Mental Health Knowledge Schedule (MAKS), questionnaire measuring mental illness stigma used by Ke et al. (2015), and Attitudes Toward Seeking Professional Help (ATSPPH-SF).

Mental health knowledge. The enhancement of mental health knowledge among the public can prompt several positive outcomes on mental illness stigma, facilitate intention of help-seeking, and increase the proportion of individuals with mental health issue getting treatment in future (Evans-Lacko, Little, Meltzer, Rose, Rhyddrerch, Henderson, and Thornicoft, 2010). In this study, the mental health knowledge will be measured by Mental Health Knowledge Schedule (MAKS) which crafted by (Evans-Lacko et al., 2010).

Mental illness stigma. Mental illness stigma is being defined as a set of negative attitudes and beliefs that motivating fear, rejection, avoidance, and discrimination against the individual with mental illness and it also relates with many chronic health conditions, causing much suffering to those who are stigmatized (Mash & Wolfe, 2018; Brakel, 2006).

The operational definition of mental illness stigma is measure by the 19-items questionnaire measuring mental illness stigma used by Ke, Lai, Yang, Wang, and Austin

(2015) which consists of two subscale which are stereotype endorse and desire for social distance. The higher the score indicates stronger mental illness stigma.

Stereotype endorsement. Stereotype endorsement is an automatic process, working at a preconscious level (Gaertner & McLaughlin 1983; Macrae, Milne, & Bodenhausen, 1994). In this study, stereotype endorsement is measured by a subscale of questionnaire measuring mental illness stigma used by Ke et al. (2015).

Desire for social distance. Desire for social distance is being referred as a measurement for a person's willingness to interact with individual who is mentally ill, and may having linkage to discrimination against individual who is mentally ill (Lauber, Nordt, Falcato, & Rössler 2004; Link & Phelan 2001), hence, reduction for this aspect of stigma is fairly important (Link & Phelan 2001).

The operational definition of desire for social distance is examine by the subscale of questionnaire measuring mental illness stigma used by Ke et al. (2015). The lower the score of this subscale, the lower the desire for social distance. In other words, individual who scores lower in this subscale are more willing to interact with an individual with mental illness.

Mental health workshop. Mental health workshop provides training to the participants to be well equipped with knowledge and confidence to recognize and respond to mental disorders surrounding us. It helps reduce stigma, improve mental health literacy and raise awareness of youth mental health (Kutcher & McLuckie, 2013). In this study, the few aspects of mental health literacy such as knowledge, decrease of stigma, help-seeking intention, and biology factor of mental illness will be covered in our mental health workshop.

Chapter 2 Literature Review

Introduction

As stated by the National Health and Morbidity Survey (NHMS) reported that in Malaysia the prevalence of mental health issues for individuals aged 16 and above by 2015 was more than one quarter of the population from only 10.7% in 1996 (NHMS, 2015), this group of people are required immediate attention or remedial actions (Ministry of Health Malaysia, 2017). This finding has shown that adolescents aged 16 and above in Malaysia are at risk of mental health issues as adolescence is an essential stage of risk for the onset of psychiatric symptoms (Yamaguchi et al., 2011), particularly the first onset of depression (Stange et al., 2016). Based on the findings from Malaysia Global School-based Health Survey (GSHS) 2012, the prevalence of depression among adolescents is 17.7% (as cited in Kaur, Cheong, Naidu, Kaur, Manickam, & Noor, 2015), and particularly students who living with stress academic experiences are at high risk (Khan, Sulaiman, & Hassali, 2010). Therefore, these findings show that there is an urgent need to implement psychoeducational workshop in Malaysia secondary school to educate the schooling adolescents who aged 16 and above and evaluate the effectiveness of the workshop.

Gender Differences in Mental Health

Statistics were done by the WHO shows there is an obvious gender difference for the lifetime risk of depression in South East Asia region, males illustrated a rate 7 to 12 percent whereas for females is relatively higher at a rate of 20 to 25 percent (WHO, 2007). However, despite the fact that females are more vulnerable to mental illness such as depression. Female are having higher mental health literacy levels than males, especially in term of ability to recognise mental illnesses (Tay et al., 2018; Chong et al., 2016), and help-seeking behaviours from both formal and informal helper as compared to male who preferred coping alone (Tay et al., 2018) or delay the action of seeking-help (Chong et al., 2016).

Among adolescents with suicidal thoughts show an obvious gender difference, data illustrated with 10.5% of boys and 17.5% girls was having suicidal thoughts (O'Donohue, Benuto, & Tolle, 2013). Even in a study conducted in Malaysia showed that females have higher vulnerability to mental health issues compared to males during adolescence, however, female adolescents experience higher amounts of negative affectivities compared to their male counterparts, especially in term of higher social stress, lower self-esteem, higher symptoms of depression (Yaacob et al., 2009).

Mental Health Literacy in Adolescents

Past studies depicted that most mental disorders develop during young age, and approximately about half of all cases of diagnosed mental illnesses reported in adulthood onset at aged 14 (WHO, 2018; Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005; Belfer, 2008; WHO, 2008). Campos et al. (2018) mentioned there is an immediate need to carry out interventions that portray positive outcomes in term of mental health literacy promotion for adolescents, particularly in the knowledge enhancement and mental health issues related stereotype reduction, promotion of positive attitudes of first aid strategies and help-seeking intentions, and development of self-help abilities.

Mental Illness Stigma and Adolescents

Public stigma commonly known as externalized stigma refers to negative attitudes such as prejudice, beliefs such as stereotypes and behaviours such as discrimination against other people in society with mental health issues such as depression, schizophrenia and suicidal ideation (Corrigan, 2004). Moreover, self-stigma which is also known as internalized stigma are prejudice, stereotypes, and discrimination concerning an individual's own mental health issues (Corrigan, 2004). For an adolescent, the fear of being stigmatized by peers is considered to be a major disincentive to seek the necessary treatment for mental health rather than a lack of knowledge of the resources available (Zhao et al., 2015).

The stigma associated with mental illness issues is obvious to people at an early age, however, young people's attitudes are malleable and easier to change than adults' attitudes (Corrigan & Watson, 2007). Therefore, it is crucial to invest in promoting literacy in mental health in this targeted group. Whereas, for Malaysia context, Nik Mustafa et al. (2015) mentioned stigma and discrimination seems to be a major barrier that discourages youth with mental illness and their families from seeking help and necessary treatment. Contact-based education has become the most popular and effective method for working with young people (Gronholm et al., 2017).

School-based Interventions and Adolescents

Students hold a high risk of depression as compare to the general public due to stressful academic events and environmental causes which can elicit depression, anxiety, suicidal ideation and so forth (Khan, Sulaiman, & Hassali, 2010; Lee & Syaid, 2017). This statement plausibly shows adolescents who are studying is especially high in risk for diagnosis of mental health issues and we should take school-based interventions or workshop as our reference for the study.

Mental Illness Education Australia is a school-based educational mental health workshop that aimed at stigma reduction, enhance mental health literacy and help-seeking behaviours in secondary school students through the delivery of information and awareness related to mental illnesses by a presenter. The result of pre- and post- test showed significant enhancement in mental health literacy, moderate improvement in stigmatising attitudes, and slight improvements in help- seeking behaviours (Kelly, Jorm, & Wright, 2007). Mental Health Awareness in Action program which conveyed the information about mental disorder in two one-hour sessions which aimed to enhance knowledge of mental disorder and reduce stigma in secondary schools. The results of pre- and post- test and a one-month follow-up

depicted significant enhancement in stigmatising attitudes and mild improvements in mental health knowledge (Kelly, Jorm, & Wright, 2007).

Headstrong is a universal, curriculum-based psychoeducational program and it covered the syllabus of mental health and self-development which consists of five modules which are mood and mental wellbeing, the low down on mood disorders, reaching out, helping yourself, and making a difference (Perry et al., 2014). Headstrong classroom activities are conducted over five to eight weeks, amounted an approximation of 10 hours of class duration (Perry et al., 2014). The result of randomized controlled trial illustrated that there were positive significant results shown by HeadStrong for both mental health knowledge and stigma reduction, however, no significant results was shown on participants' help-seeking intentions (Perry et al., 2014).

Besides these published interventions, there are numerous studies was adapting self-created psychoeducational classroom intervention that showed significantly increase in mental health knowledge, decrease stereotypes related to mental health problems, and increase help-seeking behaviour (Campos et al., 2018). Moreover, self-created educational session with video or drama presentation which targeted secondary school students showed significance improve in mental health knowledge (Chan et al., 2009; Naylor et al., 2009; Pinfold et al., 2003), positive attitude towards mental health issues (Chan et al., 2009; Naylor et al., 2009; Essler et al., 2006), and stigma reduction (Chan et al., 2009).

Brief one-hour classroom workshop on mental illness stigma for secondary school students which the authors classified mental illness stigma into the measurement of two subscales which is stereotype endorsement and desire for social distance (Ke et al., 2015). They defined the desire for social distance is measure of a person's acceptance to interact with mentally ill individual. The results of pre- and post- test illustrated the significant decrease in mental illness stigma in the term of desire for social distance but no changes in

stereotype endorsement (Ke et al., 2015). The authors hypothesize the content of the workshop might emphasized more on improvement in the desire for social distance and insufficient information for the reduction in stereotype endorsement. The question raises for the measure of stereotype endorsement for the future study (Ke et al., 2015).

Theoretical Framework

Health belief model (HBM). This model proposes four types of health beliefs that influence a person's health behaviour, in this case, the help-seeking behaviour of mental health: perceived susceptibility, perceived severity, perceived barriers, and perceived benefits (Janz, Champion, & Stretcher, 2002). Perceived susceptibility to the condition refers to how vulnerable the individual feels to the illness (Henshaw & Carol, 2009), from an extension of low to high. Perceived severity of the illness refers to believe that illness could lead to serious consequences (Henshaw & Carol, 2009), such as mortality and morbidity. Perceived barriers refer to how the advantages of taking action outweight the barriers to enrol in action, for instance, shortage of time, convenience, transportation and so forth that could affect the decision making of an individual with mental illness to seek help from mental health professional. Lastly, perceived benefits refer to an extension of a specific action is on expectancy to decrease the risk of obtaining the condition or the outcomes of the condition. In this case, individuals would be more likely to increase in help-seeking behaviour if people perceived themselves as vulnerable to a psychiatric disorder, that psychiatric disorders have severe outcomes or even deadly, and that advantages of seeking help from mental health professions outweigh barriers. The *Figure 1* below is adapted from Simons-Morton, Greene, and Gottlieb (1995).

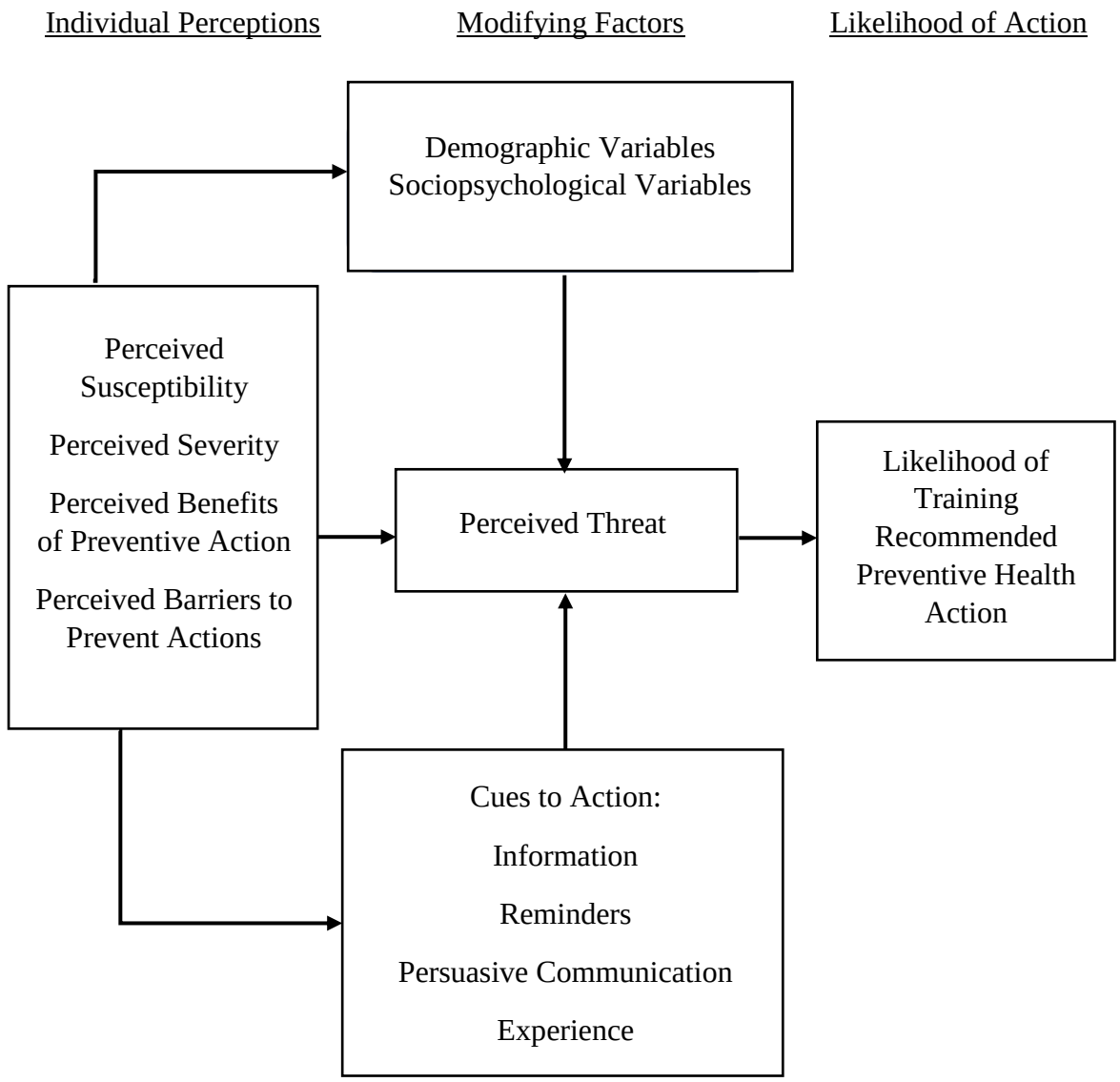

Figure 1. The theoretical framework of health belief model (HBM).

Conceptual Framework

The elements of HBM, such as a one's perception of effectiveness of mental health treatment and even own perception of stigma in the community, portray to affect his or her decision to use mental health services (Richardson, Morgenstern, Crider, & Gonzalez, 2013). One's decision to start a health behaviour is influenced by two major segments which are individual perceptions and modifying factors. Simons-Morton et al. (1995) noted that the effectiveness of treatment is less important than the perception of the patient believe on how effectiveness it to be. The course of action in mental health can be happened through the sequence of HBM. First for the perceive susceptibility, individual might doubt how susceptible he or she to the mental illness, for example, individuals who believe they are at risk for mental disorders, are more likely to take precautions and seek consultation from mental health specialists. Second, the perceive severity refers to the individual thought of how serious the mental illness to his or her health, for instance, individual who believe mental disorders such as depression is catastrophic will more likely to seek help from mental health services. Third, perceive benefits refers to individuals who believe seeking-help from mental health professional could benefit them in term of recovery or prevention from more serious mental illness are more willingly to seek for help. Lastly, barrier such as concerning the cost of treatment. Individuals who believe mental health services are expensive may denial their mental health condition or reluctant to go for treatment. Therefore, a brief mental health workshop would be served as a factor which targeted to change the overall mental health literacy at the post-workshop as the likelihood of action.

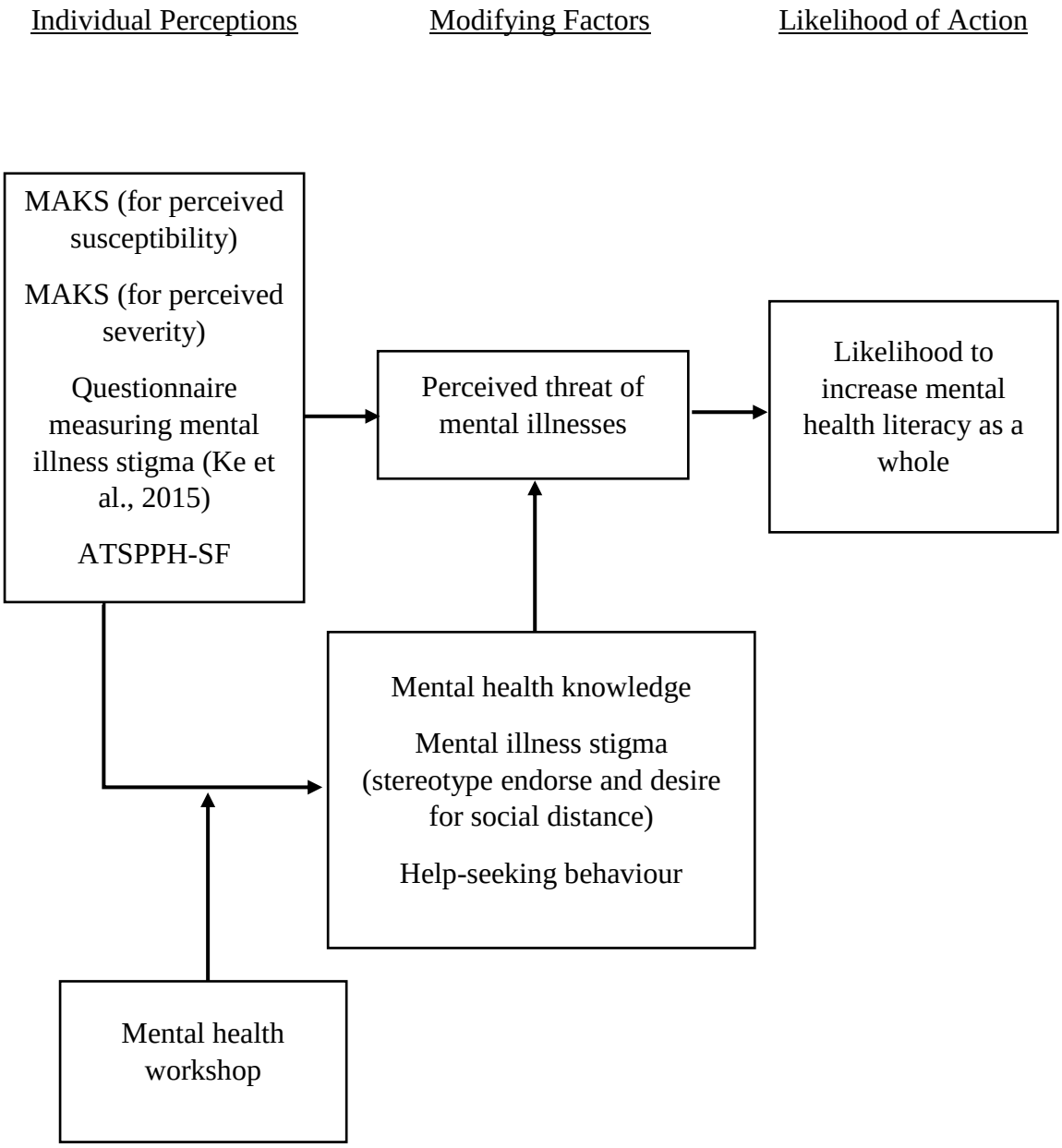

Figure 2. The conceptual framework of health belief model (HBM).

Chapter 3 Methodology

Introduction

This chapter of methodology consists of the explanations for ethical consideration, research design, participants, instruments, research procedures, and analysis of data that have been used in this research study.

Ethical Consideration

This research has been approved by the scientific and ethical review committee by the Universiti Tunku Abdul Rahman with the ethical code number of U/SERC/15/2019. The ethics committee approval letter is attached as Appendix A.

Research Design

This study employed a cross-sectional quasi-experimental quantitative pre-post research design with the aim to identify the effectiveness of brief mental health workshop in improving mental health knowledge, help-seeking behaviour and mental illness stigma reduction all together to increase mental health literacy as a whole. Our study combined the mechanisms of cross-sectional which defined as “an observational study design that used to measures the outcome and the exposures in the study participants at the same time” (Setia, 2016), and quasi-experiment which is an empirical interventional research design which could predict the causal effect of an intervention on the sample without random assigned (Dinardo, 2008), before and after the experimental manipulation . The participants were required to complete a set of structured questionnaire pertaining mental health literacy in the areas of mental health knowledge, mental illness stigma, and attitudes toward help-seeking from mental health professionals at two time points (T1, before the mental health literacy workshop, on paper), and (T2, immediately after the mental health literacy workshop, on paper).

Participants

94 secondary school students from a town in Perak, Malaysia were participated in our study, this target group was selected based on non-probability sampling method which called purposive sampling. Before proceeding to data collection, G-power software was employed to calculate a potential sample size that is required for the study to attain .05 effect size. The estimated number of participants is 54 students. The workshop was scheduled on a normal schooling day. The participants were Senior One and Senior Two students aged between 16 to 19. A non-probability sampling method which was voluntary response sampling was used. A set of structured questionnaires with a demographic sheet (as attached in Appendix D) was given to the respondents in the form of paper-and-pencil. The age group of participants was chosen as our research subject is because it is an emerging stage to adulthood and most onset of mental illnesses are start from this age range (WHO, 2018; Yamaguchi et al., 2011; Kessler et al., 2005; Belfer, 2008; WHO, 2008). Both the informed consent and parental consent (as attached in Appendix B) was distributed the students and their parents or legal guardian to read and by signing it to acknowledge their understanding and agreement with the terms and conditions of our study, and the signed consents have to be returned back to the researchers few days before the workshop.

Instruments

Demographic sheet. A demographic sheet was created to collect data on student ID, gender, race, age, stream of study, and personal experience or someone that one's close to with mental illness.

General Health Questionnaire – 28 (GHQ-28). The GHQ-28 is a mental health screening tool developed by Goldberg (1978) was employed to detect the mental health condition of the target participants. GHQ-28 consists of 28 items which measure the risk of developing mental illnesses that divided into four subscale which are "somatic symptoms

from questions 1 to 7, anxiety or insomnia symptoms from questions 8 to 14, social dysfunction from questions 15 to 21, and severe depression measured by questions 22 to 28" (Goldberg, 1978, as cited in Sterling, 2011, p. 259). The proposed time to complete is less than five minutes. The example of question measuring somatic symptoms is "been getting any pains in your head?", for measuring anxiety is "felt constantly under strain?" and insomnia is "had difficulty in staying asleep once you are off?", example question for social dysfunction is "been managing to keep yourself busy and occupied?", and for measuring severe depression is "found yourself wishing you were dead and away from it all?". The GHQ-28 was reported to have a test-retest reliability of .78 to .90 (Robinson & Price, 1982). The group results of GHQ-28 will be shared with the school authority for the awareness of prevention purpose in the future.

Mental health knowledge schedule (MAKS). The MAKS is a mental health knowledge assessment constructed by Evans-Lacko et al. (2010), and was employed to measure the mental health knowledge of the target participants. MAKS consists of 12 questions, with six point-Likert scale. Students need to answer the questions by ticking the box. MAKS is free to use for non-profit purposes if no changes are made to the scale. MAKS comprises six areas of "knowledge related to stigma in mental health which are help seeking, recognition, support, employment, treatment, and recovery" (Evan-Lacko, 2010, p. 442). The item for recovery is "People with severe mental health problems can fully recover.". "The overall internal consistency among items 1 to 6 was moderate with a Cronbach's α of .65" (Evans-Lacko et al., 2010, p. 444). A systematic review on psychometric properties of MAKS showed a preferred reliability and an acceptable construct validity for use in research and practice (Wei, McGrath, Hayden, & Kutcher, 2016).

Questionnaire measuring mental illness stigma. This questionnaire is adopted from Ke et al. (2015). It was a modified version of questionnaire that originally created by Schulze

et al. (2003). It is free for research use. This mental illness stigma questionnaire consists of 19 statements included the first 7 questions of which inquire about the likelihood of stereotypes endorsement on individuals with mental illness, and the subsequent 12 questions of which inquire about the willingness to involve in several sorts of social relationships with individual with mental illness, also known as desirability of social distance. Items are rated on a three-point Likert scale of a 0- to 1-point scale, which 0 represents low stigma, 0.5 represents unsure, and 1 represents high stigma (Ke et al, 2015). The sample question for stereotype endorsement is "Someone who has a mental illness cannot cope with stress before exams" whereas for desire for social distance is "I would feel embarrassed or ashamed if my friends knew that someone in my family has mental illness.". On average, the stereotype scale with a Cronbach's α of .72 and the social distance scale with a Cronbach's α of .83 (Schulze et al., 2003). The scale is claimed to be valid in measuring mental illness stigma on secondary school students (Schulze et al., 2003).

Attitudes toward seeking professional psychological help short form version (ATSPPH-SF). ATSPPH-SF is the simplified version of attitudes toward seeking professional psychological help (ATSPPH). ATSSPH-SF was created by Fischer and Farina (1995) and it consists of 10 questions with half of them are reserve scoring items. ATSPPH is free to use and is no permissions required to the administer (Fisher & Farina, 1995). Items are rated on a four-point Likert scale of a 0- to 3-point scale to indicate from disagree to agree. The higher the scores the greater the attitudes toward help-seeking from mental health professionals. The example for the question is "If I believed I was having a mental breakdown, my first inclination would be to get professional attention." whereas the instance for reverse score item is "Personal and emotional troubles, like many things, tend to work out by themselves.". ATSPPH-SF indicated a good fit, high factor loading, and good reliability (Picco et al, 2016). There was a high correlation shown between the 10 items ATSPPH-SF

and the original 29 items ATSPPH which was .87 (Fisher & Farina, 1995). For its criterion validity, a study showed that "college students who were received mental health service scored significantly higher (M = 20.50, SD = 5.21) than non-users (M = 16.63, SD = 5.09), F(1,294) = 19.00, P < .001 (Cohen's d=0.74)" (Elhai, Schweinle, & Anderson, 2008, p. 324).

Brief mental health workshop. Participants received a 50 minutes mental health workshop was conducting accordance to mental health modules crafted by TeenMentalHealth.org with adaptation to fit the duration of the workshop and the cultural context. Besides, the overall content is reproduced with the kind permissions of TeenMentalHealth.org, Prof. Dr. Stan Kutcher (personal communication, January 25, 2019, as attached in Appendix C), Pintar Foundation, and Universiti Tunku Abdul Rahman. It is a professional driven module which covered the facts, myths, biological factor and other information about mental health. Participants were given a chance to question any mental health question that linked to the workshop content upon the completion of workshop.

Research Procedures

Recruitment of participants. After constructing the questionnaire and the workshop material, an email was sent to multiple independent high school in exploring for the research opportunity. Once some schools are showing interest in providing us a research opportunity, we went to these schools for a face-to-face discussion with the teacher-in-charge to discuss further details and the collaborative possibility. Once we confirmed the location of study, arrangements of study were discussed and planned between researchers and the school authority to fulfil the criteria such as number, gender, and age group of participants as well as adequate duration of workshop. The informed and parental consent were distributed in the form of paper-and-pencil through the school authority to the participants few days prior to experimentation.

Pre-mental health literacy measurement. GHQ-28, MAKS, Questionnaire measuring mental illness stigma, and ATSPPH-SF were included in the set of structured questionnaires were given to the secondary school students to answer before the mental health workshop begins. A short briefing was given to the participants about the answering method and they are allowed to question about any vocabulary or sentence that they are unsure of. The suggested time to complete this set of questionnaires is about 15 minutes, and a maximum of another 5 minutes was given to the participants who were unable to finish on time.

Brief mental health workshop. The workshop was conducted with the sequence in the ascending order of acknowledgement, stigma: myths and realities of mental illness, understanding the relationship between mental health and mental illness, some common mental disorders in young people, and treatments and recovery. The total duration of the workshop was around 50 minutes, with the questions and answers session included.

Post-mental health literacy measurement. The same set of structured questionnaires without the mental health screening tool GHQ-28 were given to the participants the next day after the mental health workshop. The distribution and collection of questionnaires were processed through the assists of school authority as that day was a schooling day, the participants were only allowed to answer during the school assembly which have no clash with any classes. The answered questionnaires were collected from the school authority by the researchers another day after the post-test.

Analysis of Data

Data collected will be analysed by using the Statistical Package of Social Science (SPSS). The total scores of GHQ-28, MAKS, Questionnaire measuring mental illness stigma, and ATSPPH-SF will be shown in mean, standard deviation, and frequency distribution as for descriptive statistics. Besides, in term of inferential statistics, paired samples t-test and

independent samples t-test were employed to generate the statistical evidence in answering our research questions.

Independence samples t-test was employed to analyse the gender difference in areas such as mental illness knowledge, mental illness stigma, and help-seeking behaviour from professional. There are four assumptions to be considered before proceeding to this test which includes the dependent variables (DVs) in this case are our set of scores should be interval or ratio data that are continuous, each participant are only allowed to participate in the research once, and should not influence or distract the participation of other participants, every set of scores for DVs should be approximately normally distributed, and every set of scores should fulfil the criteria of homogeneity of variances that consists of equal amount of variability .

Paired sample t-test was used to analyse the statistical significant difference between mean scores of the pre- and post- test of MAKS, questionnaire measuring mental illness stigma, and ATSPPH-SF. Generally, there are three assumptions for analysing of data using this test which includes the scores for DVs must be continuous can be either ratio or interval data, each group of scores for DVs should be approximately normally distributed, and the differences between pair of scores for DVs should be approximately normally distributed.

Few expectations were made based on the past findings. The gender difference in term of areas such as mental illness knowledge, mental illness stigma, and help-seeking behaviour from professional and the positive outcomes should be shown in the three areas of mental health literacy after attending the workshop. According to past findings, the mean scores of three questionnaires that measure three dependent variables which are mental health knowledge and attitudes toward help-seeking from mental health professionals should increase and the mean score for mental illness stigma should decrease as the effects of participation in the mental health workshop.

Chapter 4 Findings and Analysis

Background of Respondents

The demographic information of the 94 participants in this study have been tabulated in the Table 4.1. There were 54 (57.45%) of males and 40 (42.55%) of females participated in the study. The study was participated by majority of Chinese (98.94%) and only an 1.06% of Malay ethnicity. The age range of the participants were from 16 to 19 years, the majority of participants were in the age of 16 (72.34%), followed by the age of 17 (21.28%), the age of 18 and 19 were the minority (5.32% and 1.06% respectively). For the stream of study, there were 73.40% of students who are studying art stream and 26.60% of students who are studying science stream. Besides, for the question inquire personal experience of or someone close to you experienced with mental illness shown a majority of 70.21% of participants answered 'No' and 29.79% answered 'Yes'.

Table 4.1

Demographic of Respondents

	Frequency	Percentage (%)
Gender		
Male	54	57.45
Female	40	42.55
Ethic		
Malay	1	1.06
Chinese	93	98.94
Age		
16	68	72.34
17	20	21.28
18	5	5.32
19	1	1.06
Stream of Study		
Art	69	73.40
Science	25	26.60
Mental Illness Experience by Yourself or Someone Close to You		
Yes	28	29.79
No	66	70.21

Scale of Measurement

Continuous data which are interval or ratio data are required for both the paired sample t-test and independent samples t-test. Thus, the summation for total scores for each MAKS, questionnaire measuring mental illness stigma, and ATSPPH-SF were calculated for both pre- and post- test.

Normality of the Data

The scores of MAKS, questionnaire measuring mental illness stigma, and ATSPPH-SF were tested in a normality test by using SPSS before proceeding into the paired-sample t-test and independent samples t-test to ensure the scores of these variables are normally distributed. The results of SPSS showed that all group of scores are normally distributed that fulfilled the principle of homogeneity (as attached in Appendix F).

Normality of Difference Scores

The difference between the scores for pre- and post- test for each assessment stated above were calculated and inserted into a normality test by using SPSS before proceeding into the paired-sample t-test and independent samples t-test to ensure the differences between pairs of scores are approximately normally distributed. The results of SPSS showed that all differences between paired of scores are normally distributed that fulfilled the principle of homogeneity (as attached in Appendix F).

Reliability Test

A Cronbach's Alpha reliability test was conducted to analyse the internal consistency of the items measuring the same construct. The result for MAKS indicated a questionable alpha coefficient of .63, questionnaire measuring mental illness stigma indicated a good alpha coefficient of .75, and ATSPPH-SF indicated a questionable alpha coefficient of .66. As stated in Giliem and Giliem (2003) the rule of thumb for Cronbach's alpha coefficient classified into few categories which are poor for alpha score below .60, questionable for

alpha score between .61 to .69, acceptable for alpha score between .70 to .79, good for alpha score between .80 to .89, excellent for alpha score .90 and above, and any score below .50 is considered unacceptable.

Gender Difference

H_1 : *There is a gender difference in the mental health knowledge among secondary school students in the pre-test*.

An independent-samples t-test was conducted to compare the pre-test scores of MAKS and the gender. As shown in Table 4.2, there was no significant gender difference in the mental health knowledge was shown. Hence, H_1 is rejected.

Table 4.2

Results of t-test and Descriptive Statistics for Mental Health Knowledge by Gender in the Pre-test

	Gender						95% CI for Mean Difference		
	Male			Female					
	M	*SD*	*n*	*M*	*SD*	*n*		*t*	*df*
Mental Health Knowledge	32.13	9.46	54	35.35	7.51	40	-6.82, .38	-1.78	92

H_2 : *There is a gender difference in the mental illness stigma among secondary school students in the Pre-test*.

An independent-samples t-test was conducted to compare the pre-test scores of questionnaire measuring mental illness stigma and its two subscales, and the gender. As shown in Table 4.3, higher pre-test scores were shown for the males (M = 8.41, SD = 2.91) than the females (M = 6.78, SD = 2.76); $t(92) = 2.75$, $p < .01$. Besides, a higher pre-test scores were shown on the subscale of desire for social distance for the males (M = 4.86, SD = 2.42) than females (M = 3.48, SD = 2.30); $t(92) = 2.81$, $p < .01$. However, no significant difference was shown on stereotype endorsement.

These results showed that gender difference exists on mental illness stigma in pre-test for mental illness stigma and desire for social distance. Hence, H_2 is supported.

Table 4.3

Results of t-test and Descriptive Statistics for Mental Illness Stigma, Stereotype Endorsement, and Desire for Social Distance by Gender in the Pre-test

	Gender						95% CI for Mean Difference	*t*	*df*
	Male			Female					
	M	*SD*	*n*	*M*	*SD*	*n*			
Mental Illness Stigma	8.41	2.91	54	6.78	2.76	40	.45, 2.81	2.75**	92
Stereotype Endorsement	3.54	.89	54	3.24	1.01	40	-0.91, .69	1.52	92
Desire for Social Distance	4.86	2.42	54	3.48	2.30	40	.41, 2.37	2.81**	92

Note: *$p < .05$. **$p < .01$

H_3 : *There is a gender difference in the help-seeking behaviour among secondary school students in the pre-test*.

An independent-samples t-test was conducted to compare the pre-test scores of ATSPPH-SF and the gender. As shown in Table 4.4, there was no significant gender difference in the help-seeking behaviour was shown. Hence, H_3 is rejected.

Table 4.4

Results of t-test and Descriptive Statistics for Help-seeking Behaviour by Gender in the pre-test

	Gender						95% CI for Mean Difference	*t*	*df*
	Male			Female					
	M	*SD*	*n*	*M*	*SD*	*n*			
Help-seeking behaviour	14.98	5.11	54	14.90	5.38	40	-2.08, 2.25	.08	92

Mental Health Knowledge Scale (MAKS)

H_4 : *There is a significant increase in the mental health knowledge before and after attending the workshop*.

A paired-sample t-test was conducted to determine the effect of the brief mental health workshop on MAKS in a group of secondary school students. Results as shown in Table 4.5. On average, a higher score is shown in MAKS after the mental health workshop (M = 38.02, SD = 7.51) than before the mental health workshop (M = 33.50, SD = 8.79). The difference was -4.52, 95% CI [-6.36, -2.69], significant $t(93) = -4.90$, $p < .001$, and indicated a medium effect size, Cohen's $d = 0.55$. Hence, H_4 is supported.

Table 4.5

Results of t-test and Descriptive Statistics for Mental Health Knowledge

	Pretest		Posttest						
	M	*SD*	*M*	*SD*	*N*	95% CI for Mean Difference	*r*	*t*	*df*
Mental Health Knowledge	33.50	8.79	38.02	7.51	94	-6.36, -2.69	.41***	-4.90***	93

Note: ***$p < .001$

Questionnaire Measuring Mental Illness Stigma

H_5 : *There is a significant decrease in the level of stigma for mental disorders before and after attending the workshop.*

A paired-sample t-test was conducted to determine the effect of brief mental health workshop on questionnaire measuring mental illness stigma in a group of secondary school students. Results as shown in Table 4.6. On average, lower scores were shown in questionnaire measuring mental illness stigma after the mental health workshop (M =6.28, SD = 3.25) than before the mental health workshop (M = 7.71, SD = 2.94). The difference was 1.43, 95% CI [0.96, 1.90], was significant $t(93) = 6.04$, $p < .001$, and indicated a small

effect size, Cohen's *d* = .46. In regard to the two subscales of the questionnaire there was also lower scores shown in both stereotype endorsement and desire for social distance on the post-test. Hence, H_5 is supported.

Table 4.6

Results of t-test and Descriptive Statistics for Mental Illness Stigma

	Pretest		Posttest			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	*df*
Mental Illness Stigma	7.71	2.94	6.28	3.25	94	.96, 1.90	.73***	6.04***	93

Note: ***$p < .001$

H_6 : *There is a significant decrease in the level of stereotype endorsement before and after attending the workshop.*

A paired-sample t-test was conducted to determine the effect of brief mental health workshop on stereotype endorsement. As shown in Table 4.7, lower scores were shown after the mental health workshop (*M* = 2.70, *SD* = 1.05) than before the mental health workshop (*M* = 3.41, *SD* = .95). The difference was .71, 95% CI [0.50, 0.92], was significant $t(93) = 6.69$, $p < .001$, and indicated a medium effect size, Cohen's *d* = .71. Hence, H_6 is supported.

Table 4.7

Results of t-test and Descriptive Statistics for Stereotype Endorsement

	Pretest		Posttest			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	*df*
Stereotype Endorsement	3.41	.95	2.70	1.05	94	.50, .92	.47***	6.69***	93

Note: ***$p < .001$

H_7 : *There is a significant decrease in the level of desire for social distance before and after attending the workshop.*

A paired-sample t-test was conducted to determine the effect of brief mental health workshop on desire for social distance. The results as shown in Table 4.8, lower scores shown in the desire for social distance after the mental health workshop (M = 3.59, SD = 2.57) than before the mental health workshop (M = 4.27, SD = 2.45). The difference was .69, 95% CI [.31, 1.07], was significant $t(93) = 3.58$, $p = .001$, and indicated a small effect size, Cohen's d =.27. Hence, H_7 is supported.

Table 4.8

Results of t-test and Descriptive Statistics for Desire for Social Distance

	Pretest		Posttest						
	M	*SD*	*M*	*SD*	*n*	95% CI for Mean Difference	*r*	*t*	*df*
Desire for Social Distance	4.27	2.45	3.58	2.57	94	.31, 1.07	.73***	3.58***	93

Note: ***$p \leq .001$

Attitudes Toward Seeking Professional Psychological Help (ATSPPH-SF)

H_8 : *There is a significant increase in the level of help-seeking behaviour before and after attending the workshop.*

A paired-sample t-test was conducted to determine the effect of brief mental health workshop on help-seeking behaviour. On average, higher scores were shown in ATSPPH-SF after the mental health workshop (M = 15.46, SD = 4.93) than before the mental health workshop (M = 14.98, SD = 5.22). As shown in Table 4.9, there was no significant difference between pre- and post- test was shown. Hence, H_8 is rejected.

Table 4.9

Results of t-test and Descriptive Statistics for Help-seeking Behaviour

	Pretest		Posttest						
	M	*SD*	*M*	*SD*	*n*	95% CI for Mean Difference	*r*	*t*	*df*
Help-seeking Behaviour	14.98	5.22	15.46	4.93	93	-1.33, .36	.67***	-1.14	92

Note: ***$p < .001$

Chapter 5 Discussion

Introduction

The effects of brief mental health workshop on secondary school students have been determined in this study. Our study provided an evidence that a brief mental health workshop is viable to increase mental health literacy in the areas of mental health knowledge and mental illness stigma.

There is significant positive difference for the mental health knowledge and mental illness stigma for secondary school students upon the completion of workshop. This finding is in line with the study conducted by Perry et al. (2014) which stated results from RCT elicited significant positive outcomes for both mental health knowledge and stigma reduction but no significant changes on help-seeking behaviour was shown based on the HeadStrong programme.

All areas of mental illness stigma measured in our study are considered as perceived stigma which indicates the extensions of others perceive the individual with mental illness is socially undesirable (Gaebel et al., 2014).

In general, we found that despite the mental health knowledge increased and mental illness stigma decreased as the effects shown on a brief mental health workshop, however, the secondary school students might still insist to seek help whenever necessary.

Gender Difference in Mental Health Knowledge

There was no significant gender difference in the mental health knowledge was shown in our study. Our findings are contradicted to past studies mentioned that generally female are having higher level of mental health knowledge as compared to their male counterparts (Tay, Tay, & Klainin-Yobas; 2018; Chong, et al., 2016). This can be explained by the general mental health knowledge of Malaysian are low, thus, it is difficult to draw a difference of this aspect by gender. Past study by Yeap and Low (2006) stated that majority of Malaysians did

not have adequate knowledge of mental health which hinder them to detect any early signs and symptoms of mental illness.

Gender Difference in Mental Illness Stigma

The results of analysis show that there are significant gender differences for mental illness stigma which measured by questionnaire measuring mental illness stigma in which males were significantly higher in mental illness stigma as compared to females in both pretest and posttes. This is in consistent with the study by Gaebel et al. (2014) which stated perceived stigma of males is relatively higher than females. In contrast, females found to have higher self-stigma in comparison to males which leads them to have higher likelihood to experience social withdrawal and discrimination (Khan, Kausar, Khalid, & Farooq, 2015). Even in a local study indicated that female adolescents are having higher susceptibility to the diagnosis of mental disorders as compared to their male counterparts (Yaacoob et al., 2009). This finding could add an explanation to Khan, Kausar, Khalid, and Farooq (2015) which mentioned males are higher in perceived stigma whereas females are higher in self-stigma.

There is no significant gender difference in stereotype endorsement is shown in our study. This is different from the study by Khan et al. (2015) which depicted a result of males are relatively higher in stereotype endorsement as compared to females. Our sample size might not be sufficient to draw a difference in mental illness stigma especially in stereotype endorsement.

Moreover, the gender difference in desire for social distance towards people with mental health issue is shown in the pre-test. Our results show males were significantly higher in desire for social distance towards people with mental health issue as compared their female counterparts. This is contradicted to the study by Jorm and Oh (2009) which stated that there is no significant gender difference in terms of desire for social distance from individuals with mental disorders. Gender is not the only plausible factors that influence an individual's

desired social distance from people with mental illness. Past studies mentioned that stigma is a multidimensional concept which can be varied across factors such as age, gender and culture (Griffiths, Christensen, & Jorm, 2008; Watson, Miller, & Lyons, 2005; Fogel, & Ford, 2005).

Gender Difference in Help-seeking Behaviour

There was no significant gender difference in the help-seeking behaviour was shown in our study. As mentioned in Tay, Tay, and Klainin-Yobas (2018) females are especially higher in help-seeking behaviour as compared to their male counterparts in help-seeking from both formal and informal helper who preferred coping alone. Besides, males are very likely to delay the action of seeking-help from mental health professionals (Chong et al., 2016). However, our study shows contradictions as compared to these past findings. Part of the reasons for this condition might because our general findings show no significant difference in the help-seeking behaviour and our sample is not large enough to elicit both effects in help-seeking behaviour as well as gender difference in this aspect.

Effects on Mental Health Knowledge

The study discovered that there was a significant difference in the mental health knowledge on the secondary school students after attending the mental health workshop. This is in line with past studies which shown mental health educational programme or workshop for adolescents can elicit the improvement in their mental health knowledge (Pinfold & Stuart, 2003; Chan et al., 2009; Naylor et al., 2009). Our study indicates that even in Malaysia which is a collectivist, multiracial, and multicultural society which is different society settings compared to past studies carried at Western society (Naylor, Cowie, Walters, Talamelli, & Dawkins, 2009; Essler, Arthur & Stickley, 2006), however, the positive effects on mental health knowledge in the aspect is shown after attending the workshop.

Effects on Mental Illness Stigma

Our findings indicated that there was a significant difference in the mental illness stigma on the secondary school students after attending the mental health workshop. This finding is in line with Pinfold (2003) and Pinfold et al. (2005) and Essler et al. (2006). According to a local study by Nik Mustafa (2015) described that stigma and discrimination are viable to be a major barrier that discourages youth with mental illness and their families from seeking help and necessary treatment. Hence, through the reduction in mental illness, the students might not immediately elicit improvement in help-seeking behaviour, however, they might increase likeliness to seek help whenever in need in the near future.

Effects on Stereotype Endorsement

The study discovered that there was a significant difference in the stereotype endorsement on the secondary school students after attending the mental health workshop. Stereotype endorsement shown a significant decrease after the students attending the 50 minutes brief mental health workshop. This is contradicted to the findings by Ke el al. (2016) which stated there was no significant difference in the stereotype endorsement on the secondary school students after a one-hour brief mental health workshop. Ke el al. (2016) which stated duration of mental health workshop might shows a linkage to the effectiveness. Hence, the contrast between our study and past findings might be influenced by other factors such as content of the workshop material, teaching style and even the cultural background of the students.

Effects on Desire for Social Distance

The study discovered that there was a significant difference in the desire for social distance on the secondary school students after attending the mental health workshop. This finding is in line with Ke et al. (2016) which show a brief mental health workshop could decrease the students' desire for social distance with people with mental illness. The decrease

in desire for social distance could increase the friendliness of the students toward the people with mental illness and more likely to engage with them. This indirectly can reduce the social withdrawal and discrimination experience by people with mental illness (Khan, Kausar, Khalid, & Farooq, 2015).

Effects on Help-seeking Behaviour

Our findings discovered that there was no significant difference in the help-seeking behaviour from mental health professions before and after the mental health workshop. This result is contradicted with the findings of Nik Mustafa et al. (2015) which described stigma and discrimination are viable to be the main hindrance that discourages adolescence with mental health issue and their families from seeking necessary help. In our study even though positive results shown in both the mental illness stigma which includes both stereotype endorsement and desire for social distance, and mental health knowledge, however, the students' help-seeking attitude towards mental health is still cannot be improved through a brief workshop.

Phang, Marhani, and Salina (2010) mentioned that individuals with mental health issues in Malaysia frequently choose to seek help from traditional healers as their priority rather than mental health professionals. They also stated more than half of their respondents indicated that they had sought help from traditional healers for at least once. Angermeyer and Dietrich (2006) stated that how individuals define a mental health issue, and their perception of cause and the prognosis expectations are factors that influence the help-seeking behaviour. Besides, the fear of being stigmatized by peer is one of the major barriers for an adolescent to seek mental health treatment rather than an illiteracy of the feasible resources (Zhao et al., 2015). Thus, some adolescents might not have high mental illness stigma but individually may have the fear of being stigmatized, prior to seek help from traditional healers, false

perception of cause, and poor prognosis expectations which could be the causes that inhibit the improvement in help-seeking behaviour.

Implications

The findings of our study demonstrated that a brief mental health workshop is viable to have effectiveness on improving mental health knowledge and reducing mental illness stigma, despite there was no significant difference between the pre- and post- test in help seeking behaviour, perhaps we should have more study on brief mental health workshop by emphasizing the content on help seeking behaviour. Ke et al. (2015) mentioned that there was a reduction of more than one-third in stigma subscale of desire for social distance immediately after a brief mental health workshop. In comparison, our findings show only a slight reduction for less than one-fifth in the particular subscale. Perhaps, we should make improvements by involve audience engagement activities such as discussion that ask the audience to reflect on their own feelings and experiences that practiced by Ke et al. (2015). Besides, a gender difference in mental illness stigma was found in our study. This study fills the knowledge gap on providing evidence to increase mental health literacy in Malaysia context which our current mental health literacy is comparative low to other countries (Yeap and Low, 2009).

Limitations

There are several limitations throughout the whole research study that more or less affect the research outcomes. First, it is the time constraint for the preparation and the duration of the workshop. Part of the reasons is because the time allocated for us to carry out the workshop is partly depending on the school arrangement. Although our findings shown positive outcomes for some dependent variables, however, the question of how long the effects of the mental health workshop last is still remain unanswered. For instance, follow up of assessment ranging from after one-month to years were conducted in previous studies (Ke

et al., 2015; Yamaguchi et al., 2011; Perry et al., 2014). Second, the participants were in their peak season in preparing of their final exam, to certain extend this might affect their attention to be able to concentrate on the workshop. In regard to this, students who have high involvement can lead them to pay more attention, improve reasoning, capable to recall content from previous classes and so forth (Caldwell, 2007). Third, we realised that the adopted questionnaire is somehow difficult to comprehend for the secondary school students even though there were past studies apply it on the same age group. Ting, Marzuki, Chuah, Misieng, and Jerome (2017) mentioned that Malaysians were lack of English proficiency even for university graduates which triggered high unemployment rate.

Recommendations for Future Research

Future studies are recommended to conduct similar study in a longitudinal study design which follows the same sample of individuals over time to answer the question of how long can the effects of mental health workshop last like what had been carried out in previous studies (Ke et al., 2015; Naylor et al., 2009; Hoven et al., 2008). Besides, even though a mental health workshop with duration of around an hour can have some positive effects, however, the help-seeking behaviour still remain unchanged. In regard to this, a mental health workshop that provide a contact condition to participants to have contact with individuals with mental health problems could improve the help-seeking behaviour (Yamaguchi et al., 2009). Thus, future studies can provide an opportunity to participants to listen some personal experiences from people with mental illness. Moreover, due to the Malaysian context is different from the western context for its complex multiracial and multicultural society, and there is lacking of mental health resources in providing adequate mental health services (Chong, Mohamad, & Er, 2013), in regard to current location of study, there is no full time psychiatrist and psychologist in the town which hinders the accessibility of mental health services. Furthermore, we assume those existing mental health assessments that crafted in

western context may not possess with the same validity when apply in Malaysia, the future researchers are highly recommended to reword, rephase, or translate mental health assessments with back-translation in order to fulfil the need in Malaysia. As stated in Yeap and Low (2009), the help-seeking behaviour can be influenced by factors such as personal attitudes, ethnicity, and age, particularly the ethnicity could influence individuals' decisions to seek help. Hence, future studies are suggested to test on mental health workshop in a multiracial setting that involves comparable number of participants of different ethnicities.

Conclusion

This research aimed to examine the effectiveness of brief mental health workshop on mental health literacy in the areas of mental health knowledge, mental illness stigma, and help-seeking behaviour from mental health professionals among the secondary school students in Malaysia. This study was conducted in a quasi-experimental pre-post design study with the participation of 94 secondary school students which they were recruited based on purposive sampling method. This study shown that a 50 minutes brief mental health workshop is viable to increase mental health literacy particularly in mental health knowledge improvement and mental illness stigma reduction in terms of stereotype endorsement and desired social distance, however, no significant difference was shown in help-seeking behaviour. This study provides evidence that a brief mental health workshop can elicit positive impacts in mental health literacy on Malaysian adolescents which born in a multiracial and multicultural context. Hence, more mental health workshop can be carried out to target on adolescents in Malaysia to cultivate prevention or encouragement of early intervention. Lastly, future studies can extent the study on other mental health workshops that potentially improve the effect on help-seeking behaviour.

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Appendices

Appendix A

UNIVERSITI TUNKU ABDUL RAHMAN
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

Re: U/SERC/15/2019

8 February 2019

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

Dear Dr Chie,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your students' research projects from Bachelor of Social Science (Hons) Psychology programme enrolled in course UAPZ3023. We are pleased to inform you that the application has been approved under expedited review.

The details of the research projects are as follows:

	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Know It Now: The Effects of Brief Mental Health Workshop on Secondary School Students	1. Tan Sin Yee 2. Phang Jin Xiang	Mr Tay Kok Wai	8 February 2019 – 7 February 2020

The conduct of this research is subject to the following:

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

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

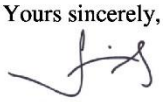
(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia
Tel: (605) 468 8888 **Fax:** (605) 466 1313
Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia
Tel: (603) 9086 0288 **Fax:** (603) 9019 8868
Website: www.utar.edu.my

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

Thank you.

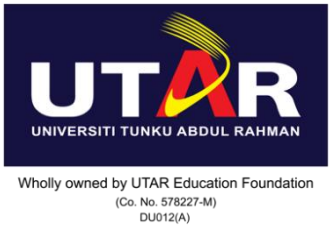
Yours sincerely,



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

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

Appendix B



解释声明

我们是来自金宝拉曼大学，艺术与社会科学学院，社会科学学士（HONS）心理学系本科生。我们正在进行一份名为**心理健康工作坊是否能有效地提高心理健康素养**的毕业论文。

以下将详细说明此研究的相关事宜。

研究目的
透过进行此心理健康工作坊以了解此工作坊是否能改善马来西亚中学生与心理健康知识，精神疾病偏见及健康寻求行为

研究涉及
此问卷包含四个部分，分别为个人资料，心理健康知识，心理疾病偏见和精神疾病患者的求助行为。此调查需大约 10-15 分钟完成。

参与与风险
此研究不涉及任何风险。您的参与属自愿模式，您可以选择随时停止或撤销，也可跳过任何您不愿意或无法回答的问题。您将不会被逼参加，同时，如果选择不参加也不会受到任何处分。但是，如果您完成所有问卷，则代表您同意将您提供的信息纳入研究。

保密事宜
您所给予的所有信息都将保密。唯有研究人员才能使用研究资料。该调查问卷仅用于学术用途。此外，参与者的信息亦不会在其他社区小组中公开使用，或用于其他用途。

道德标准
这项研究涉及到实验对象的参与以及个人资料的收集。因此，此研究项目已经通过 UTAR Scientific and Ethical Review Committee (SERC) 的审查以及获得批准，参考编号为：U/SERC/15/2019

福利与补偿
此项研究并未给予任何福利及补偿。但是，您的参与将为我们的研究带来更好的理解此工作坊是否能提高心理健康素养方面的有效性。

联络方式
研究人员非常乐意回答所有关于此研究的操作程序。如果您有任何关于此研究项目的问题及疑问，可通过发送电子邮件至 tsyxy1001@1utar.my。

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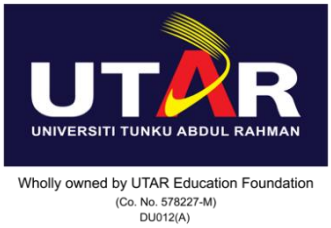
书面同意书
协议参与此研究

我_____（身份证号码_____）同意自愿参与上述研究。该任务由金宝拉曼大学的社会科学学士（HONS）心理学本科生完成。我已被告知并了解研究目的与程序。我也理解研究所收集的信息都将保密。最后，我承认我已阅读综上所述事宜，并在此接受条款和条件。

签名: _____

日期: _____

正本



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家长同意书

请签以下声明已表示同意让您的儿子/女儿参加这场心理健康工作坊相关的研究项目。

我/我们 _____（父母 / 合法监护人），谨此同意让 _____（我/我们的儿子/女儿），参加这场心理健康工作坊相关的研究项目。

我/我们收到一份这份文件的副本。我/我们都已经完全明白了这份文件的内容。

签名 签名

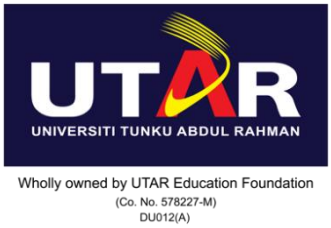
_____ _____

姓名: 姓名:

关系: 关系:

日期: _____

副本



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家长同意书

请签以下声明已表示同意让您的儿子/女儿参加这场心理健康工作坊相关的研究项目。

我/我们 _____（父母 / 合法监护人），谨此同意让 _____（我/我们的儿子/女儿），参加这场心理健康工作坊相关的研究项目。

我/我们收到一份这份文件的副本。我/我们都已经完全明白了这份文件的内容。

签名 签名

_____ _____

姓名: 姓名:

关系: 关系:

日期: _____

Appendix C

Gmail Jaden Tan <tsyxy1001@gmail.com>

Request: Permission to Adapt Modules from TeenMentalHealth.org in Malaysia

Kutcher, Stanley <Stanley.Kutcher@iwk.nshealth.ca> Fri, Jan 25, 2019 at 6:17 AM
To: Kok Wai Tay <taykw@utar.edu.my>
Cc: Jaden Tan Sin Yee <tsyxy1001@gmail.com>, Marcus Phang <marcusphangjx@gmail.com>, "Wei, Yifeng" <Yifeng.Wei@iwk.nshealth.ca>, Lori Roe <Lori.Roe@albertahealthservices.ca>, "MacKay, Amy" <Amy.MacKay@iwk.nshealth.ca>

Thanks all. Appreciate the clarity of your note and the helpful attachment.

A number of comments.

You may want to use the MHL test package that Dr. Wei has created and that we have used in a number of publications for a baseline measure – so that you can write a paper on the baseline MHL of your students using validated tools and that would be a simple publication and one that would make a contribution to the field.

You may want to modify the knowledge test that we used in a number of publications to make sure that the questions asked are covered in your adapted materials and use that as your post test measure. Then you will have an appropriate measure of MHL.knowledge. You can still use the rest of the MHL test package for your post-test assessment.

You may want to do a 3 month followup assessment.

I suggest that you contact Dr. Wei to ask her permission to use the evaluation package – I have copied her here. She can be an invaluable resource for you and can help author any publications that you want to create and submit.

The adaptations seem reasonable to me. You have my permission to go ahead as per your plan.

Once you have completed the adaptation, please send it to us (include Dr. Wei and Dr. Roe – see above) and we will consider posting it on our website as the Malaysian version with your inputs acknowledged. That will allow you to use the resource more widely in the future and will bring people who are interested in partnering you.

We would also like to see the results of your research – please ensure that you have proper ethics approval before starting.

Lori Roe will be taking over as the key person to contact regarding these matters in the next few months. Please copy her on all correspondence.

All the best

Professor Kutcher
[Quoted text hidden]

Appendix D

DEMOGRAPHIC SHEET

Please circle whatever circle choose

1. Student ID:

2. Gender: Male / Female

3. Race: Malay / Chinese / Indian / Others

4. Age: _____

5. Stream of study: _____

6. Do you have any personal experience of mental illness or someone close to you (e.g. friend, family member, classmate, and etc.) experienced with mental illness?

   Yes / No

GENERAL HEALTH QUESTIONNAIRE – 28

(David Goldberg and Hiller, 1979)

Please read this carefully.
We should like to know if you had any medical complaints, and how your health has been in general, over the past few weeks. Please answer ALL the questions on the following pages simply by underlining the answer, which you think most nearly, applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past. It is important that you try to answer ALL the questions.
Thank you very much for your co-operation.

HAVE YOU RECENTLY:

A1-been felling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2-been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3-been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4-felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5-been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6-been getting a feeling of Tightness or pressure in your head	Not at all	No more than usual	Rather more than usual	Much more than usual
A7-been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1-lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2-had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3-felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4-been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5-been getting scared or panicky for no good	Not at all	No more than usual	Rather more than	Much more than usual

reason?			usual	
B6-found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7-been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
C1-been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2-been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3-felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4-been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5-felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6-felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7-been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much more than usual
D1-been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2-felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3-felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4-thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5-found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6-found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7-found that the ideas of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A	B	C	D	TOTAL

Mental health knowledge schedule — MAKS

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

		Agree strongly	Agree slightly	Neither agree nor disagree	Disagree strongly	Disagree slightly	Don't know
1	Most people with mental health problems want to have paid employment.						
2	If a friend had a mental health problem, I know what advice to give them to get professional help.						
3	Medication can be an effective treatment for people with mental health problems.						
4	Psychotherapy (eg talking therapy or counselling) can be an effective treatment for people with mental health problems.						
5	People with severe mental health problems can fully recover.						
6	Most people with mental health problems go to a healthcare professional to get help.						

Instructions: Say whether you think each condition is a type of mental illness by ticking one box only.

7	Depression						
8	Stress						
9	Schizophrenia						
10	Bipolar disorder (manic-depression)						
11	Drug addiction						
12	Grief						

Thank you very much for your help.

Mental health knowledge schedule MAKS 10 © 2009 Health Service and Population Research Department, Institute of Psychiatry, King's College London.
Contact: Professor Graham Thornicroft. Email: graham.thornicroft@kcl.ac.uk

Questionnaire measuring mental illness stigma (including stereotype endorsement and desire for social distance) adopted from Ke et al. (2015).

	Agree	Disagree	Unsure
1. Someone who has a mental illness cannot cope with stress before exams.			
2. Mostly, someone who has a mental illness comes from a family with little money.			
3. Someone who has a mental illness cannot be helped by doctors.			
4. When meeting someone with a mental illness, one should better watch out.			
5. Someone who has a mental illness can be good at school.			
6. Someone who has a mental illness blows his/her top for the slightest reason.			
7. Students who have a mental illness are particularly good at music or art.			
8. I would be afraid to talk to someone who has a mental illness.			
9. I would not be upset or disturbed to be in the same class with someone who has a mental illness.			
10. I could imagine making friends with someone who has a mental illness.			
11. I would feel embarrassed or ashamed if my friends knew that someone in my family has a mental illness.			
12. If the person sitting next to me in class develops a mental illness, I would rather sit somewhere else.			
13. If one of my friends developed a mental illness, I would go and see him/her at the hospital.			
14. I would not invite someone who has a mental illness to my birthday party.			
15. I would not bring along someone who has a mental illness when I meet my friends.			
16. When going on a class outing, someone with a mental illness should rather stay at home.			
17. I would never fall in love with someone who has a mental illness.			
18. Someone who has a mental illness should not work in jobs that involve taking care of children or young people.			
19. Someone who has a mental illness should not go to a regular school.			

Attitudes Toward Seeking Professional Help

Your sex: _____ Male _____ Female
Your race/ethnicity: _____ African American
_____ Asian/Asian American
_____ White/European American
_____ Latino/a
_____ Arab/Middle Eastern
_____ Other: Please specify _____

Instructions

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

0 = Disagree 1 = Partly disagree 2 = Partly agree 3 = Agree

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

_____ 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 period of time.

_____ 6. I might want to have psychological counseling 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.

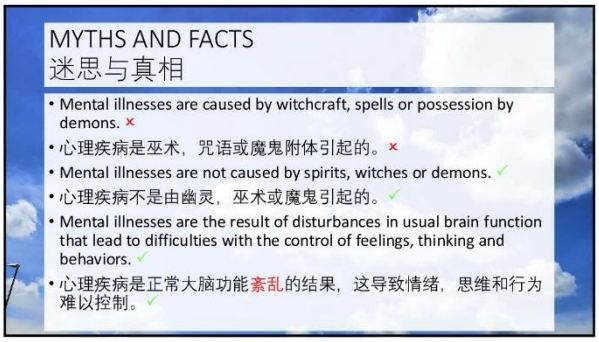
_____ 9. A person should work out his or her own problems; getting psychological counseling would be a last resort.

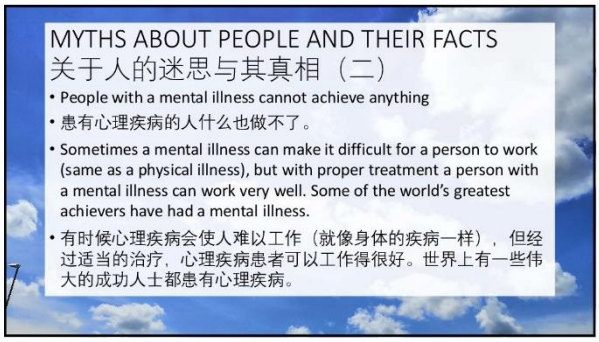
_____ 10. Personal and emotional troubles, like many things, tend to work out by themselves.

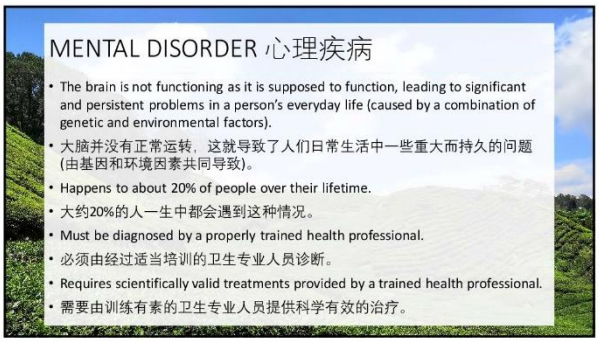
Scoring

Reverse score items 2, 4, 8, 9, and 10, then add up the ratings to get a sum. Higher scores indicate more positive attitudes towards seeking professional help. Calculate a mean for males, for females, and for each of the ethnic groups to examine group differences. Discuss any observed similarities and/or differences between the groups with the class.

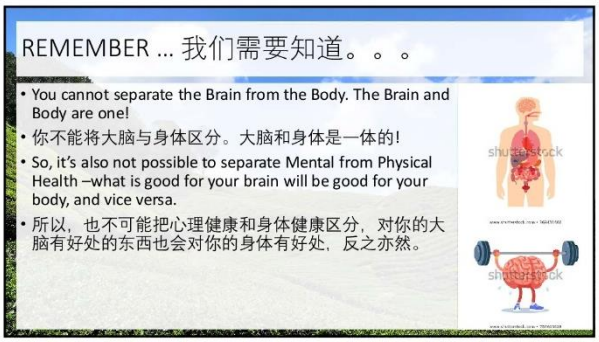
Appendix E

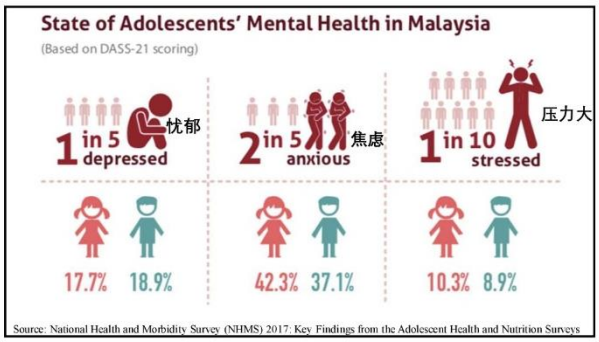

MYTHS AND FACTS
迷思与真相
• Mental illnesses are caused by witchcraft, spells or possession by demons. ×
• 心理疾病是巫术，咒语或魔鬼附体引起的。×
• Mental illnesses are not caused by spirits, witches or demons. ✓
• 心理疾病不是由幽灵，巫术或魔鬼引起的。✓
• Mental illnesses are the result of disturbances in usual brain function that lead to difficulties with the control of feelings, thinking and behaviors. ✓
• 心理疾病是正常大脑功能紊乱的结果，这导致情绪，思维和行为难以控制。✓

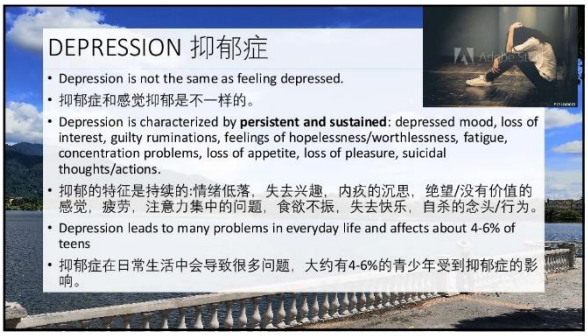

MYTHS ABOUT PEOPLE AND THEIR FACTS
关于人的迷思与其真相（二）
• People with a mental illness cannot achieve anything
• 患有心理疾病的人什么也做不了。
• Sometimes a mental illness can make it difficult for a person to work (same as a physical illness), but with proper treatment a person with a mental illness can work very well. Some of the world's greatest achievers have had a mental illness.
• 有时候心理疾病会使人难以工作（就像身体的疾病一样），但经过适当的治疗，心理疾病患者可以工作得很好。世界上有一些伟大的成功人士都患有心理疾病。


MENTAL DISORDER 心理疾病
• The brain is not functioning as it is supposed to function, leading to significant and persistent problems in a person's everyday life (caused by a combination of genetic and environmental factors).
• 大脑并没有正常运转，这就导致了人们日常生活中一些重大而持久的问题(由基因和环境因素共同导致)。
• Happens to about 20% of people over their lifetime.
• 大约20%的人一生中都会遇到这种情况。
• Must be diagnosed by a properly trained health professional.
• 必须由经过适当培训的卫生专业人员诊断。
• Requires scientifically valid treatments provided by a trained health professional.
• 需要由训练有素的卫生专业人员提供科学有效的治疗。

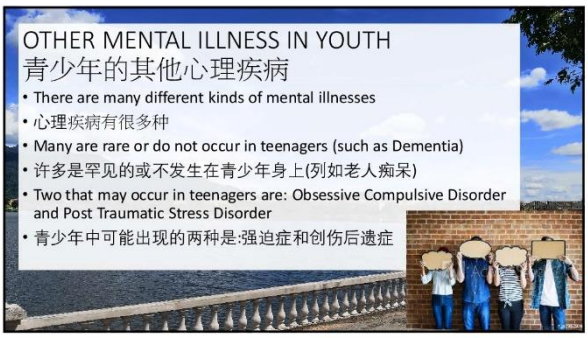
BRAIN AND BODY 大脑与身体
• Life Stress –such as a viral infection.
• 生活压力：比如病毒感染。
• Body responds with increasing temperature (e.g. fever) and negative physical sensations (e.g. aching muscles, fatigue).
• 身体会出现体温升高(如发烧)和身体负性感觉(如肌肉酸痛、疲劳)的反应。
• Your immune system fights off the virus and now you are stronger in case it comes back
• 当你的免疫系统击退了病毒，你便变得更强壮，以防病毒卷土重来。


REMEMBER ... 我们需要知道。。。
• You cannot separate the Brain from the Body. The Brain and Body are one!
• 你不能将大脑与身体区分。大脑和身体是一体的!
• So, it's also not possible to separate Mental from Physical Health –what is good for your brain will be good for your body, and vice versa.
• 所以，也不可能把心理健康和身体健康区分，对你的大脑有好处的东西也会对你的身体有好处，反之亦然。
shutterstock
shutterstock

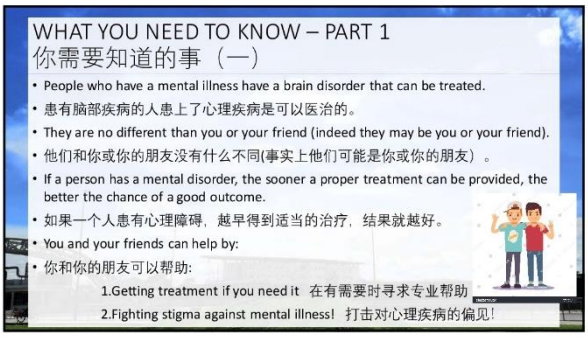

State of Adolescents' Mental Health in Malaysia
(Based on DASS-21 scoring)
1 in 5 depressed
忧郁
2 in 5 anxious
焦虑
1 in 10 stressed
压力大
17.7% 18.9%
42.3% 37.1%
10.3% 8.9%
Source: National Health and Morbidity Survey (NHMS) 2017: Key Findings from the Adolescent Health and Nutrition Surveys


DEPRESSION 抑郁症
• Depression is not the same as feeling depressed.
• 抑郁症和感觉抑郁是不一样的。
• Depression is characterized by **persistent and sustained**: depressed mood, loss of interest, guilty ruminations, feelings of hopelessness/worthlessness, fatigue, concentration problems, loss of appetite, loss of pleasure, suicidal thoughts/actions.
• 抑郁的特征是持续的:情绪低落，失去兴趣，内疚的沉思，绝望/没有价值的感觉，疲劳，注意力集中的问题，食欲不振，失去快乐，自杀的念头/行为。
• Depression leads to many problems in everyday life and affects about 4-6% of teens
• 抑郁症在日常生活中会导致很多问题，大约有4-6%的青少年受到抑郁症的影响。

TREATMENTS FOR MOOD DISORDERS
情感性疾病的治疗方法
• Effective treatments for mood disorders are available.
• 对治疗情感性疾病有效的疗法是存在的。
• For Depression, a combination of a psychotherapy (usually Cognitive Behavior Therapy: CBT) and an antidepressant medication (usually an SSRI) is used.
• 对于抑郁症，采用心理疗法(通常是认知行为疗法:CBT)和抗抑郁药物(通常是SSRI)的结合。
• For Bipolar Disorder medications (such as lithium or other medications), psychotherapy and other treatments are used.
• 治疗躁郁症可以采用药物(比如锂或其他药物)，心理治疗和其他治疗的结合。


OTHER MENTAL ILLNESS IN YOUTH
青少年的其他心理疾病
• There are many different kinds of mental illnesses
• 心理疾病有很多种
• Many are rare or do not occur in teenagers (such as Dementia)
• 许多是罕见的或不发生在青少年身上(列如老人痴呆)
• Two that may occur in teenagers are: Obsessive Compulsive Disorder and Post Traumatic Stress Disorder
• 青少年中可能出现的两种是:强迫症和创伤后遗症

UNDERSTANDING TREATMENTS 理解治疗的类别
• **Standard treatment** –based on a substantial amount of scientific evidence of effectiveness and safety.
• 标准治疗- 基于大量的有效性和安全性的科学证据。
• **Alternative treatment**–insufficient scientific evidence of effectiveness and safety and used instead of standard treatment.
• 替代治疗- 缺乏有效性和安全性的科学证据，并被用于替代标准治疗。
• **Complementary treatment** –often without the scientific evidence needed to be considered a standard treatment and given in addition to a standard treatment to help it work better or to focus on an additional health benefit.
• 补充治疗- 通常没有必要的科学证据将其视为标准治疗，并在标准治疗之外给予辅助治疗，以帮助其更好地发挥作用或侧重于额外的健康益处。


WHAT YOU NEED TO KNOW – PART 1
你需要知道的事（一）
• People who have a mental illness have a brain disorder that can be treated.
• 患有脑部疾病的人患上了心理疾病是可以医治的。
• They are no different than you or your friend (indeed they may be you or your friend).
• 他们和你或你的朋友没有什么不同(事实上他们可能是你或你的朋友）。
• If a person has a mental disorder, the sooner a proper treatment can be provided, the better the chance of a good outcome.
• 如果一个人患有心理障碍，越早得到适当的治疗，结果就越好。
• You and your friends can help by:
• 你和你的朋友可以帮助:
1.Getting treatment if you need it 在有需要时寻求专业帮助
2.Fighting stigma against mental illness! 打击对心理疾病的偏见!

Clinical Psychologist 临床心理师
Master in Clinical Psychology
临床心理师硕士学位
Diagnosis 诊断
Psychotherapy 心理治疗

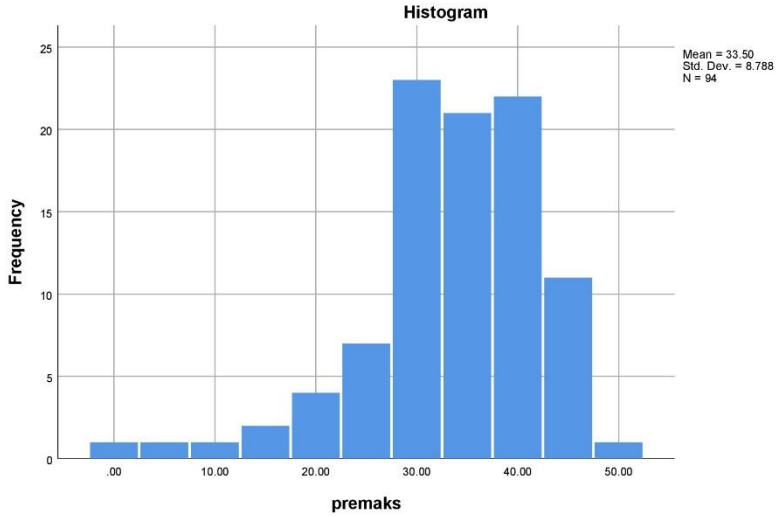
Appendix F

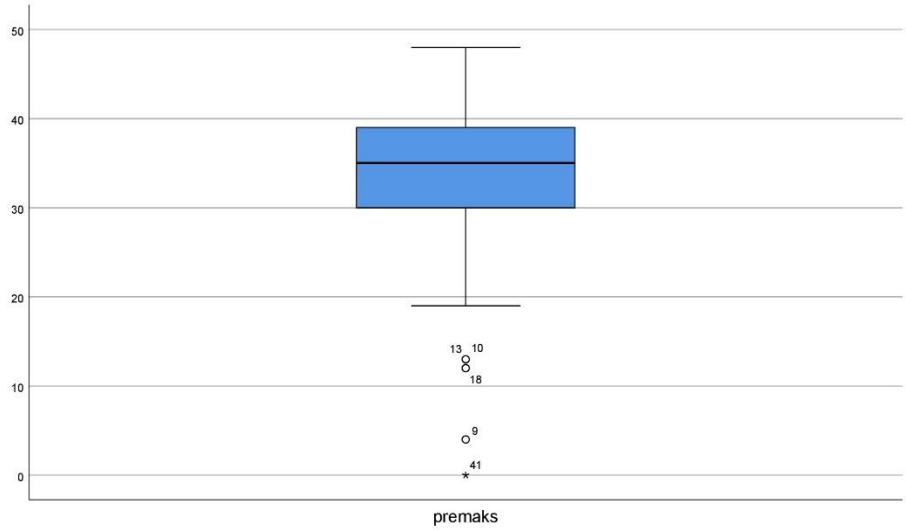
Explore

Case Processing Summary

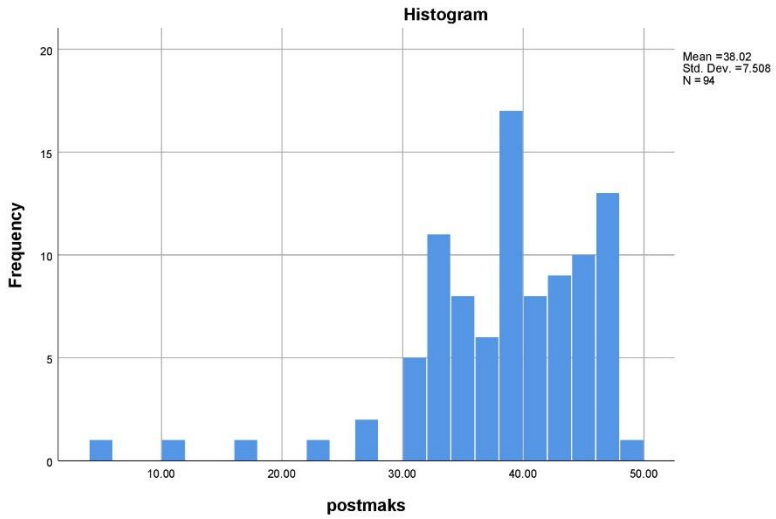
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
premaks	94	50.0%	94	50.0%	188	100.0%
postmaks	94	50.0%	94	50.0%	188	100.0%
maks difference	94	50.0%	94	50.0%	188	100.0%

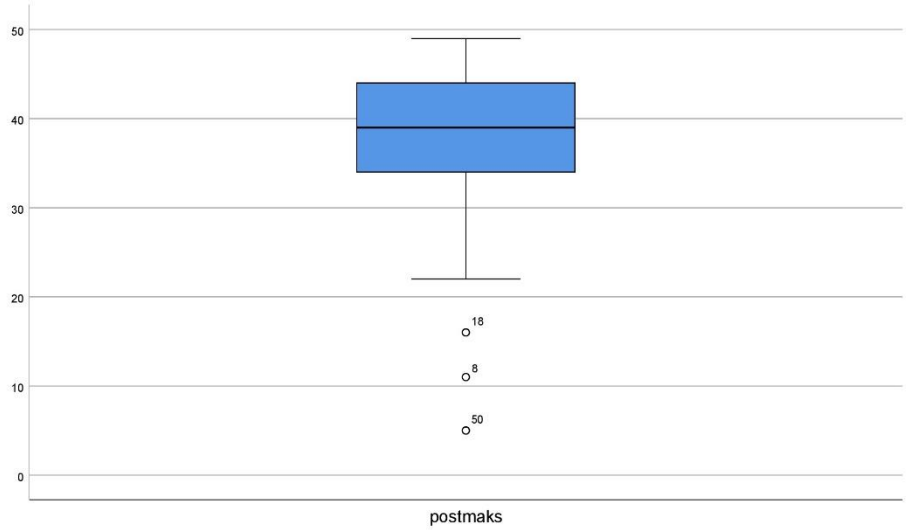
premaks



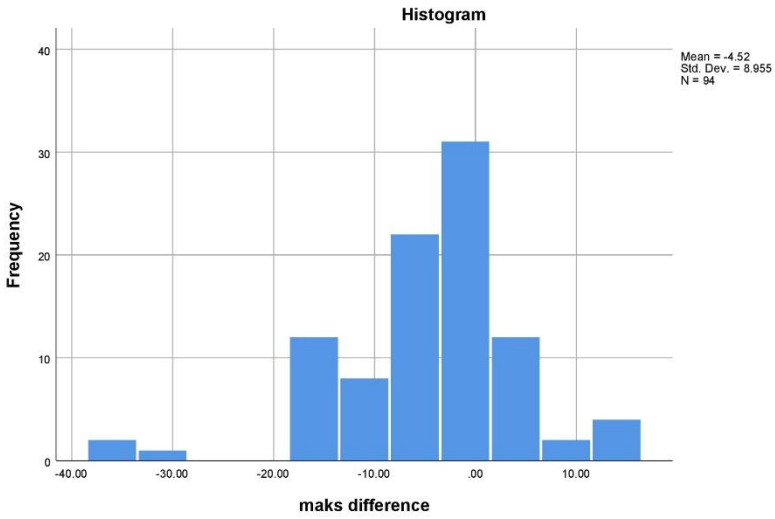

50
40
30
20
10
0
13
10
18
9
41
premaks

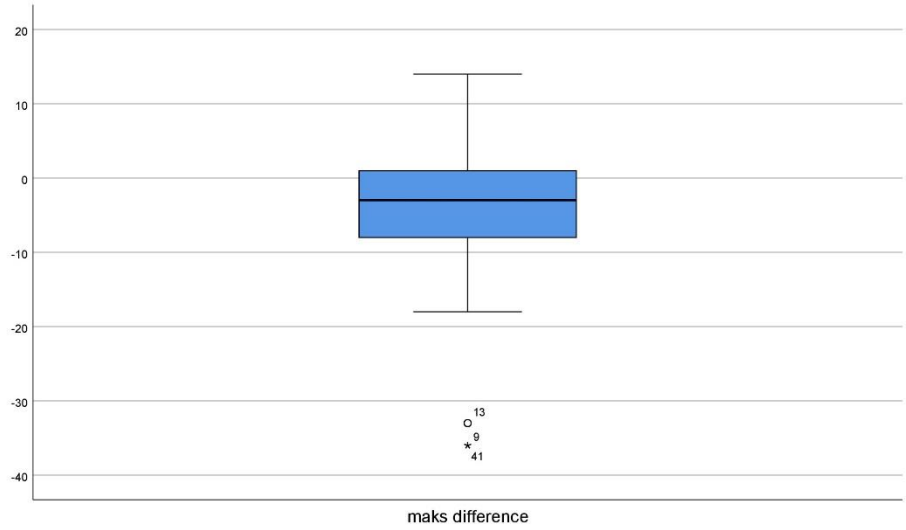
postmaks


Histogram
Mean =38.02
Std. Dev. =7.508
N = 94
Frequency
20
15
10
5
0
10.00
20.00
30.00
40.00
50.00
postmaks



maks difference



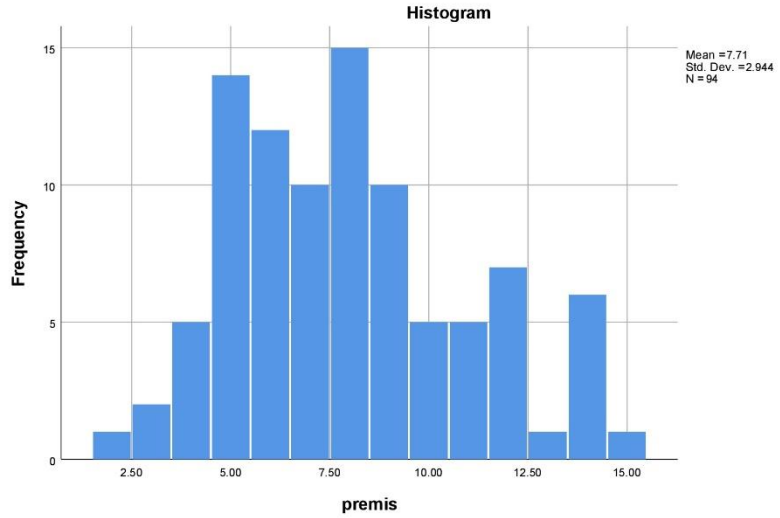


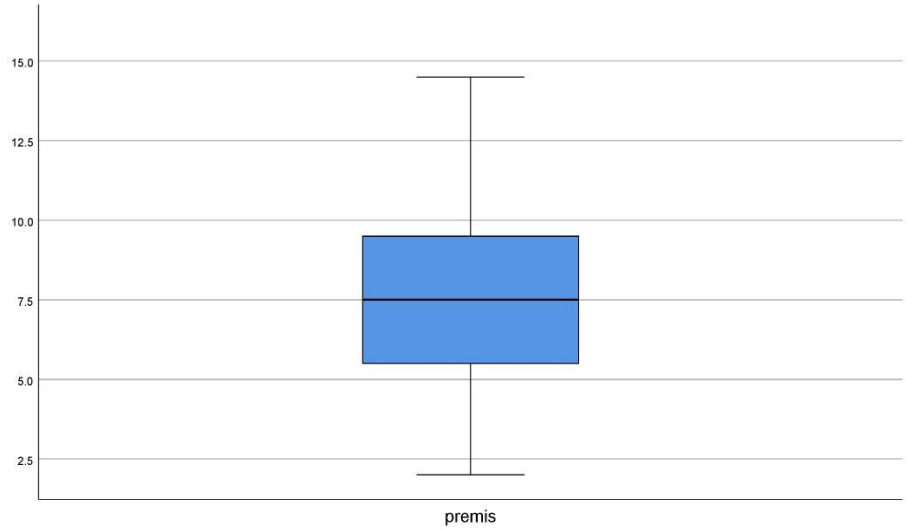
Explore

Case Processing Summary

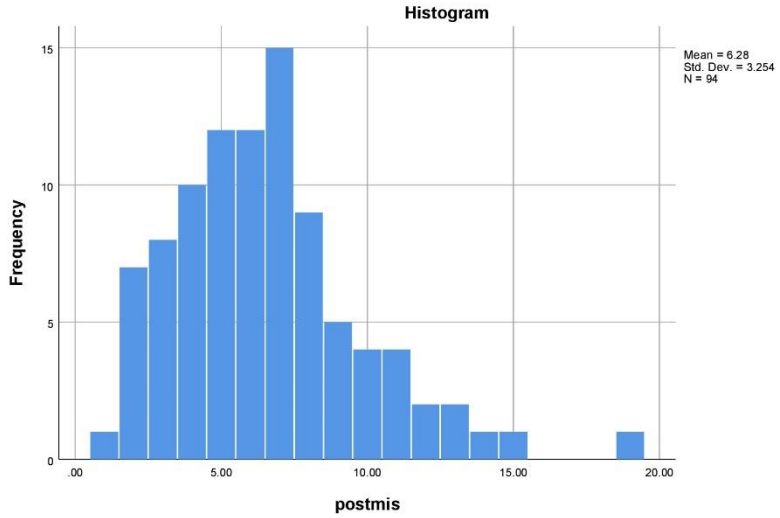
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
premis	94	50.0%	94	50.0%	188	100.0%
postmis	94	50.0%	94	50.0%	188	100.0%
mis difference	94	50.0%	94	50.0%	188	100.0%

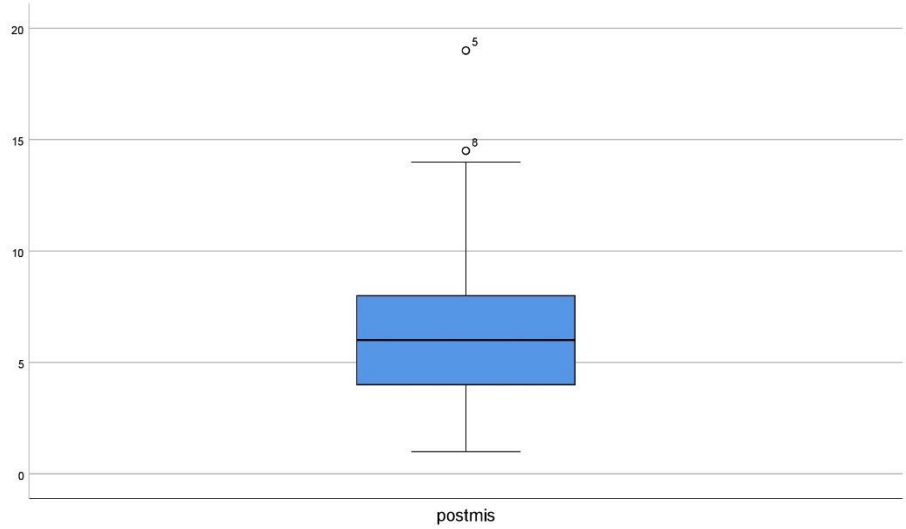
premis


Histogram
Mean =7.71
Std. Dev. =2.944
N = 94
Frequency
15
10
5
0
2.50
5.00
7.50
10.00
12.50
15.00
premis

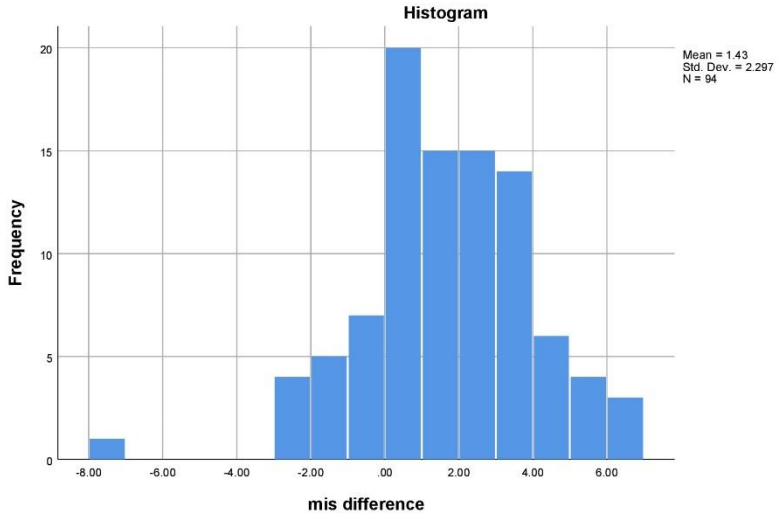

15.0
12.5
10.0
7.5
5.0
2.5
premis

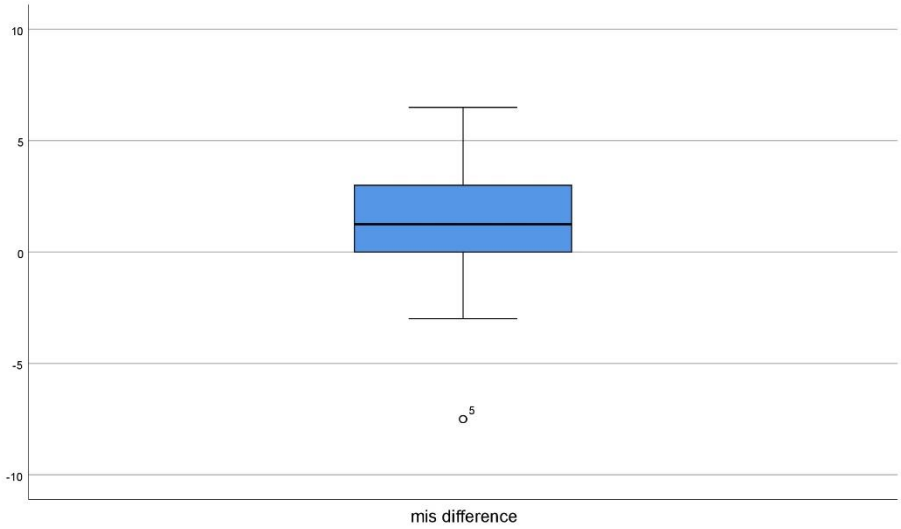
postmis





mis difference


Histogram
Mean = 1.43
Std. Dev. = 2.297
N = 94
Frequency
mis difference

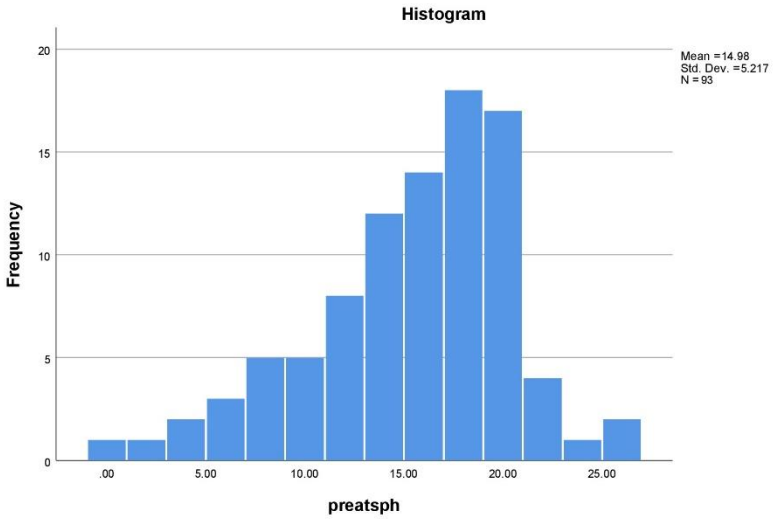

mis difference

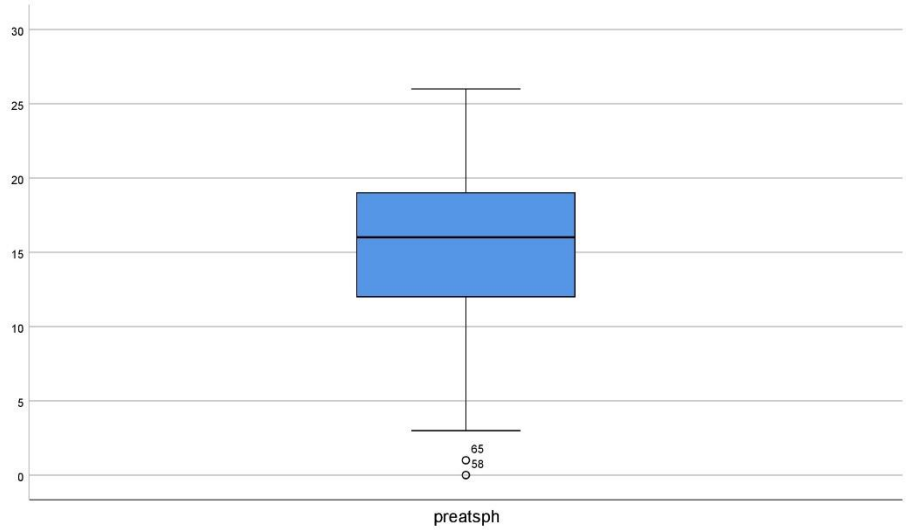
Explore

Case Processing Summary

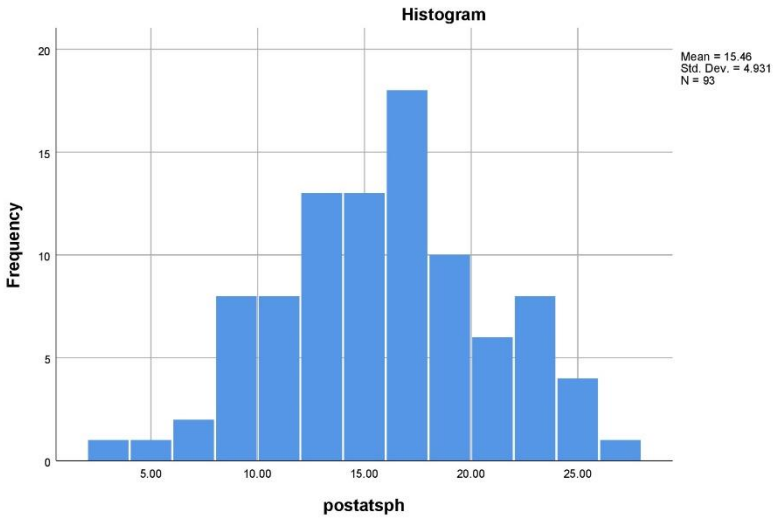
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
preatsph	93	49.5%	95	50.5%	188	100.0%
postatsph	93	49.5%	95	50.5%	188	100.0%
atsph difference	93	49.5%	95	50.5%	188	100.0%

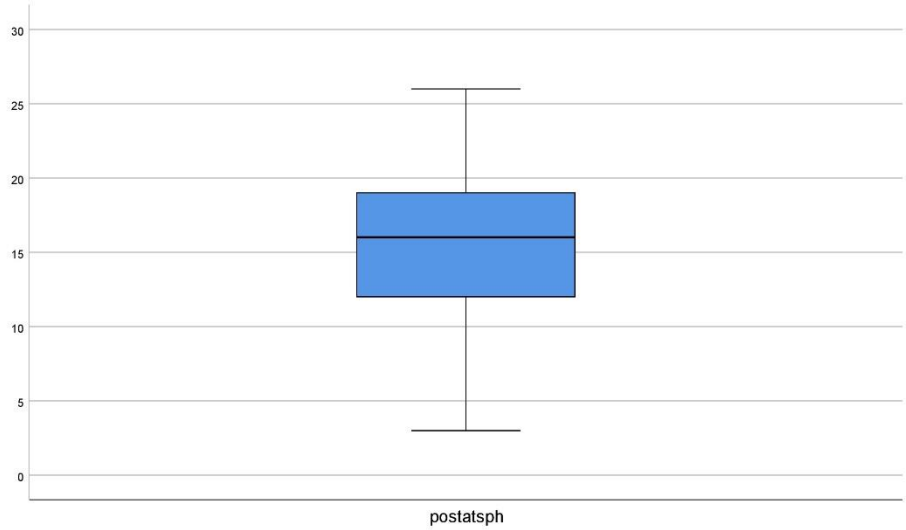
preatsph



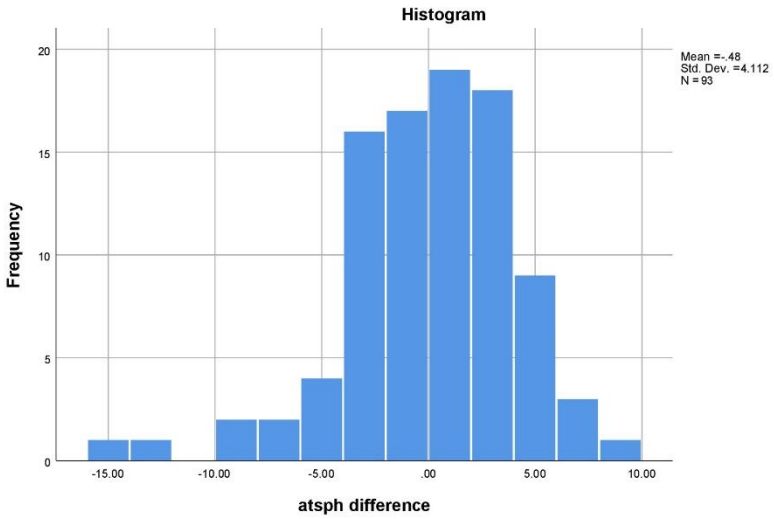

30
25
20
15
10
5
0
65
58
preatsph

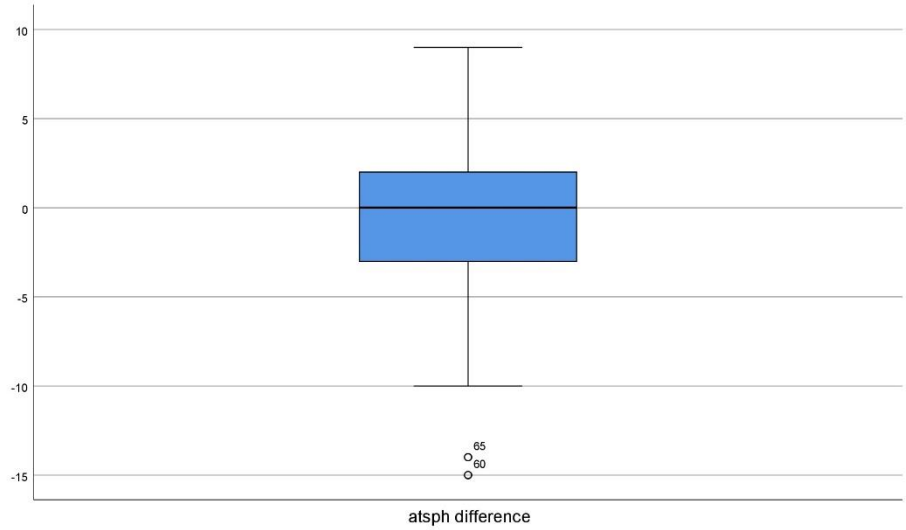
postatsph


Histogram
Mean = 15.46
Std. Dev. = 4.931
N = 93
Frequency
20
15
10
5
0
5.00
10.00
15.00
20.00
25.00
postatsph



atsph difference





Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	85	90.4
	Excluded[a]	9	9.6
	Total	94	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.880	.878	28

Item Statistics

	Mean	Std. Deviation	N
ghq-28	.2235	.41908	85
ghq-28	.1765	.38348	85
ghq-28	.3294	.47279	85
ghq-28	.2000	.40237	85
ghq-28	.2353	.42670	85
ghq-28	.1647	.37312	85
ghq-28	.1412	.35027	85
ghq-28	.1529	.36207	85
ghq-28	.1765	.38348	85
ghq-28	.2000	.40237	85
ghq-28	.2118	.41098	85
ghq-28	.1647	.37312	85
ghq-28	.2824	.45282	85
ghq-28	.2353	.42670	85
ghq-28	.2118	.41098	85
ghq-28	.1529	.36207	85
ghq-28	.2353	.42670	85
ghq-28	.3059	.46351	85
ghq-28	.1647	.37312	85
ghq-28	.3294	.47279	85
ghq-28	.1059	.30951	85
ghq-28	.2353	.42670	85
ghq-28	.2118	.41098	85
ghq-28	.1529	.36207	85
ghq-28	.2824	.45282	85
ghq-28	.2353	.42670	85
ghq-28	.1294	.33765	85
ghq-28	.1882	.39322	85

Inter-Item Correlation Matrix

	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28
ghq-28	1.000	.122	.285	.297	.102	.219	.107	.400
ghq-28	.122	1.000	.135	.231	.180	.127	.255	.403
ghq-28	.285	.135	1.000	.338	.319	.364	.147	.398
ghq-28	.297	.231	.338	1.000	.416	.492	.473	.441
ghq-28	.102	.180	.319	.416	1.000	.501	.412	.535
ghq-28	.219	.127	.364	.492	.501	1.000	.458	.428
ghq-28	.107	.255	.147	.473	.412	.458	1.000	.391
ghq-28	.400	.403	.398	.441	.535	.428	.391	1.000
ghq-28	.418	.190	.267	.386	.398	.294	.167	.403
ghq-28	.297	.309	.463	.412	.347	.412	.389	.360
ghq-28	.137	.062	.494	.101	-.016	.236	.038	.020
ghq-28	.295	.044	.229	.254	.053	.059	.275	.252
ghq-28	.228	.258	.450	.274	.207	.215	.271	.314
ghq-28	.168	.034	.201	.069	.019	.128	.014	.227
ghq-28	-.071	-.013	.188	.245	.256	.236	.451	.100
ghq-28	.243	.146	.328	.278	.227	.252	.203	.364
ghq-28	.368	.107	.201	.208	.281	.277	.173	.381
ghq-28	.257	.095	.295	.243	.113	.118	.171	.214
ghq-28	-.010	-.206	.026	.016	.128	.316	.093	-.012
ghq-28	.105	-.062	.201	.088	.142	.296	.219	.119
ghq-28	-.001	-.159	.084	.019	.170	.156	.080	.066
ghq-28	.235	.034	.437	.139	.150	.128	-.066	.073
ghq-28	.206	.138	.127	.317	-.016	.236	.286	.180
ghq-28	.086	.061	.189	.441	.227	.340	.203	.183
ghq-28	.103	-.153	.172	.209	.145	.074	.121	.024
ghq-28	.368	.180	.201	.208	.215	.277	.094	.304
ghq-28	.130	-.178	.103	.158	.034	.112	-.056	.031
ghq-28	.247	-.065	.303	.135	.159	.354	.064	.046

Inter-Item Correlation Matrix

	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28
ghq-28	.418	.297	.137	.295	.228	.168	-.071	.243
ghq-28	.190	.309	.062	.044	.258	.034	-.013	.146
ghq-28	.267	.463	.494	.229	.450	.201	.188	.328
ghq-28	.386	.412	.101	.254	.274	.069	.245	.278
ghq-28	.398	.347	-.016	.053	.207	.019	.256	.227
ghq-28	.294	.412	.236	.059	.215	.128	.236	.252
ghq-28	.167	.389	.038	.275	.271	.014	.451	.203
ghq-28	.403	.360	.020	.252	.314	.227	.100	.364
ghq-28	1.000	.463	.138	.210	.327	.252	-.089	.232
ghq-28	.463	1.000	.461	.254	.470	.347	.173	.278
ghq-28	.138	.461	1.000	.236	.379	.323	.225	.020
ghq-28	.210	.254	.236	1.000	.356	.352	.158	.252
ghq-28	.327	.470	.379	.356	1.000	.391	.123	.169
ghq-28	.252	.347	.323	.352	.391	1.000	-.084	.150
ghq-28	-.089	.173	.225	.158	.123	-.084	1.000	.100
ghq-28	.232	.278	.020	.252	.169	.150	.100	1.000
ghq-28	.325	.347	.188	.053	.268	.150	.256	.150
ghq-28	.229	.243	.281	.462	.378	.234	.218	.285
ghq-28	-.039	-.143	.158	.145	.074	.128	.236	.076
ghq-28	.332	.213	.188	.161	.339	.201	.249	.050
ghq-28	.041	-.076	-.085	-.050	.039	.170	.290	-.040
ghq-28	.252	.277	.256	.277	.330	.281	.256	.073
ghq-28	.138	.389	.295	.158	.187	.188	.225	.180
ghq-28	.146	.278	.180	.252	.024	.150	.340	.001
ghq-28	.052	.209	.187	.215	.187	.268	.315	.024
ghq-28	.325	.347	.256	.352	.453	.412	.188	.150
ghq-28	.005	.070	.229	.018	.070	.199	.143	-.164
ghq-28	.251	.286	.413	.192	.300	.088	.192	-.037

Inter-Item Correlation Matrix

	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28	ghq-28
ghq-28	.368	.257	-.010	.105	-.001	.235	.206	.086
ghq-28	.107	.095	-.206	-.062	-.159	.034	.138	.061
ghq-28	.201	.295	.026	.201	.084	.437	.127	.189
ghq-28	.208	.243	.016	.088	.019	.139	.317	.441
ghq-28	.281	.113	.128	.142	.170	.150	-.016	.227
ghq-28	.277	.118	.316	.296	.156	.128	.236	.340
ghq-28	.173	.171	.093	.219	.080	-.066	.286	.203
ghq-28	.381	.214	-.012	.119	.066	.073	.180	.183
ghq-28	.325	.229	-.039	.332	.041	.252	.138	.146
ghq-28	.347	.243	-.143	.213	-.076	.277	.389	.278
ghq-28	.188	.281	.158	.188	-.085	.256	.295	.180
ghq-28	.053	.462	.145	.161	-.050	.277	.158	.252
ghq-28	.268	.378	.074	.339	.039	.330	.187	.024
ghq-28	.150	.234	.128	.201	.170	.281	.188	.150
ghq-28	.256	.218	.236	.249	.290	.256	.225	.340
ghq-28	.150	.285	.076	.050	-.040	.073	.180	.001
ghq-28	1.000	.234	.053	.201	.260	.281	-.016	.227
ghq-28	.234	1.000	.256	.350	.103	.414	.343	.214
ghq-28	.053	.256	1.000	.364	.260	.128	.080	-.012
ghq-28	.201	.350	.364	1.000	.166	.201	.127	-.020
ghq-28	.260	.103	.260	.166	1.000	.440	-.085	.172
ghq-28	.281	.414	.128	.201	.440	1.000	.188	.381
ghq-28	-.016	.343	.080	.127	-.085	.188	1.000	.420
ghq-28	.227	.214	-.012	-.020	.172	.381	.420	1.000
ghq-28	.207	.208	.215	.061	.209	.330	.315	.387
ghq-28	.412	.414	.202	.378	.080	.477	.188	.304
ghq-28	.282	.124	.112	.103	.095	.365	.229	.420
ghq-28	.301	.138	.111	.239	.030	.371	.119	.297

Inter-Item Correlation Matrix

	ghq-28	ghq-28	ghq-28	ghq-28
ghq-28	.103	.368	.130	.247
ghq-28	-.153	.180	-.178	-.065
ghq-28	.172	.201	.103	.303
ghq-28	.209	.208	.158	.135
ghq-28	.145	.215	.034	.159
ghq-28	.074	.277	.112	.354
ghq-28	.121	.094	-.056	.064
ghq-28	.024	.304	.031	.046
ghq-28	.052	.325	.005	.251
ghq-28	.209	.347	.070	.286
ghq-28	.187	.256	.229	.413
ghq-28	.215	.352	.018	.192
ghq-28	.187	.453	.070	.300
ghq-28	.268	.412	.199	.088
ghq-28	.315	.188	.143	.192
ghq-28	.024	.150	-.164	-.037
ghq-28	.207	.412	.282	.301
ghq-28	.208	.414	.124	.138
ghq-28	.215	.202	.112	.111
ghq-28	.061	.378	.103	.239
ghq-28	.209	.080	.095	.030
ghq-28	.330	.477	.365	.371
ghq-28	.315	.188	.229	.119
ghq-28	.387	.304	.420	.297
ghq-28	1.000	.145	.459	.300
ghq-28	.145	1.000	.282	.371
ghq-28	.459	.282	1.000	.352
ghq-28	.300	.371	.352	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ghq-28	5.6118	28.264	.408	.	.877
ghq-28	5.6588	29.394	.172	.	.882
ghq-28	5.5059	27.372	.538	.	.873
ghq-28	5.6353	27.877	.522	.	.874
ghq-28	5.6000	28.148	.426	.	.876
ghq-28	5.6706	27.985	.540	.	.874
ghq-28	5.6941	28.596	.411	.	.877
ghq-28	5.6824	28.172	.509	.	.874
ghq-28	5.6588	28.180	.474	.	.875
ghq-28	5.6353	27.496	.616	.	.872
ghq-28	5.6235	28.238	.424	.	.876
ghq-28	5.6706	28.414	.429	.	.876
ghq-28	5.5529	27.417	.556	.	.873
ghq-28	5.6000	28.314	.388	.	.877
ghq-28	5.6235	28.476	.368	.	.878
ghq-28	5.6824	28.934	.306	.	.879
ghq-28	5.6000	27.957	.470	.	.875
ghq-28	5.5294	27.538	.515	.	.874
ghq-28	5.6706	29.271	.210	.	.881
ghq-28	5.5059	28.110	.384	.	.877
ghq-28	5.7294	29.533	.187	.	.881
ghq-28	5.6000	27.743	.519	.	.874
ghq-28	5.6235	28.380	.390	.	.877
ghq-28	5.6824	28.410	.445	.	.876
ghq-28	5.5529	28.250	.375	.	.878
ghq-28	5.6000	27.433	.591	.	.872
ghq-28	5.7059	29.091	.289	.	.879
ghq-28	5.6471	28.303	.430	.	.876

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	92	97.9
	Excluded[a]	2	2.1
	Total	94	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.627	.634	12

Item Statistics

	Mean	Std. Deviation	N
maks1	1.6739	1.94489	92
maks2	2.2717	2.03866	92
maks3	2.4891	1.64747	92
maks4	4.0543	1.33724	92
maks5	2.6848	1.79088	92
maks6reverse	2.5000	1.64083	92
maks7	4.1196	1.47389	92
maks8reverse	1.8804	1.01464	92
maks9	3.8261	1.62135	92
maks10	3.4783	2.02988	92
maks11	2.4783	1.69989	92
maks12reverse	2.0978	1.44542	92

Inter-Item Correlation Matrix

	maks1	maks2	maks3	maks4	maks5	maks6reverse
maks1	1.000	.039	-.121	.066	.074	-.059
maks2	.039	1.000	.055	.124	.213	.159
maks3	-.121	.055	1.000	.262	-.033	.096
maks4	.066	.124	.262	1.000	.452	.068
maks5	.074	.213	-.033	.452	1.000	-.021
maks6reverse	-.059	.159	.096	.068	-.021	1.000
maks7	.025	.315	.071	.175	.306	.148
maks8reverse	-.053	.048	-.070	.086	-.045	.056
maks9	.219	.197	-.009	.172	.227	.165
maks10	.015	.138	.136	.148	.099	.086
maks11	.111	.098	-.077	.104	.068	.213
maks12reverse	-.024	.207	-.154	-.077	.229	.072

Inter-Item Correlation Matrix

	maks7	maks8reverse	maks9	maks10	maks11	maks12reverse
maks1	.025	-.053	.219	.015	.111	-.024
maks2	.315	.048	.197	.138	.098	.207
maks3	.071	-.070	-.009	.136	-.077	-.154
maks4	.175	.086	.172	.148	.104	-.077
maks5	.306	-.045	.227	.099	.068	.229
maks6reverse	.148	.056	.165	.086	.213	.072
maks7	1.000	.135	.515	.399	.122	.273
maks8reverse	.135	1.000	.141	.124	.065	.390
maks9	.515	.141	1.000	.403	.274	.200
maks10	.399	.124	.403	1.000	.245	.160
maks11	.122	.065	.274	.245	1.000	.093
maks12reverse	.273	.390	.200	.160	.093	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
maks1	31.8804	72.392	.062	.097	.652
maks2	31.2826	63.656	.320	.146	.597
maks3	31.0652	74.633	.031	.171	.650
maks4	29.5000	69.154	.328	.361	.599
maks5	30.8696	66.005	.310	.378	.599
maks6reverse	31.0543	70.272	.191	.105	.621
maks7	29.4348	63.633	.528	.398	.562
maks8reverse	31.6739	74.442	.157	.231	.624
maks9	29.7283	62.002	.533	.390	.556
maks10	30.0761	61.653	.391	.263	.580
maks11	31.0761	67.785	.270	.153	.607
maks12reverse	31.4565	69.921	.257	.323	.609

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	94	100.0
	Excluded[a]	0	.0
	Total	94	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.750	.731	19

Item Statistics

	Mean	Std. Deviation	N
mis1	.7926	.30594	94
mis2	.1011	.22695	94
mis3	.1223	.26116	94
mis4	.6915	.40895	94
mis5reverse	.4202	.36883	94
mis6	.8298	.31583	94
mis7reverse	.4521	.35218	94
mis8	.3298	.40530	94
mis9reverse	.3457	.43395	94
mis10reverse	.3830	.38399	94
mis11	.2553	.37919	94
mis12	.2500	.39993	94
mis13reverse	.1383	.25824	94
mis14	.3457	.38119	94
mis15	.3085	.36740	94
mis16	.2553	.39312	94
mis17	.5798	.32215	94
mis18	.7021	.39020	94
mis19	.3777	.42557	94

Inter-Item Correlation Matrix

	mis1	mis2	mis3	mis4	mis5reverse	mis6
mis1	1.000	-.043	.186	.149	.042	.215
mis2	-.043	1.000	.152	.079	.162	.168
mis3	.186	.152	1.000	-.096	-.009	.125
mis4	.149	.079	-.096	1.000	.067	.109
mis5reverse	.042	.162	-.009	.067	1.000	.021
mis6	.215	.168	.125	.109	.021	1.000
mis7reverse	-.168	-.040	-.199	.158	-.113	-.098
mis8	.167	.247	.173	.231	.304	.128
mis9reverse	-.021	.105	.002	.077	.090	-.017
mis10reverse	.066	-.048	-.070	.230	.294	.056
mis11	-.002	.103	-.020	.167	.051	.008
mis12	.033	.044	.090	.115	.137	.085
mis13reverse	-.109	.034	.105	.103	.117	-.104
mis14	-.001	.151	.138	.261	.198	.114
mis15	.049	.009	-.005	.247	.223	.203
mis16	-.069	.220	.111	.111	.068	.159
mis17	-.048	-.111	.042	-.056	-.036	-.050
mis18	.085	.010	-.087	.176	.001	.086
mis19	.071	.185	.257	.121	.280	.123

Inter-Item Correlation Matrix

	mis7reverse	mis8	mis9reverse	mis10reverse	mis11	mis12
mis1	-.168	.167	-.021	.066	-.002	.033
mis2	-.040	.247	.105	-.048	.103	.044
mis3	-.199	.173	.002	-.070	-.020	.090
mis4	.158	.231	.077	.230	.167	.115
mis5reverse	-.113	.304	.090	.294	.051	.137
mis6	-.098	.128	-.017	.056	.008	.085
mis7reverse	1.000	.036	-.014	.137	-.230	-.067
mis8	.036	1.000	.078	.302	.146	.365
mis9reverse	-.014	.078	1.000	.020	.144	.240
mis10reverse	.137	.302	.020	1.000	.041	.403
mis11	-.230	.146	.144	.041	1.000	.319
mis12	-.067	.365	.240	.403	.319	1.000
mis13reverse	-.104	.073	.120	.165	.157	.286
mis14	.024	.455	.147	.279	.220	.555
mis15	-.092	.320	.032	.221	.413	.439
mis16	.128	.377	.344	.164	.333	.530
mis17	-.061	.064	.147	.076	.096	.219
mis18	.012	.118	-.052	.106	.083	.138
mis19	.140	.423	.159	.224	.096	.340

Inter-Item Correlation Matrix

	mis13reverse	mis14	mis15	mis16	mis17	mis18	mis19
mis1	-.109	-.001	.049	-.069	-.048	.085	.071
mis2	.034	.151	.009	.220	-.111	.010	.185
mis3	.105	.138	-.005	.111	.042	-.087	.257
mis4	.103	.261	.247	.111	-.056	.176	.121
mis5reverse	.117	.198	.223	.068	-.036	.001	.280
mis6	-.104	.114	.203	.159	-.050	.086	.123
mis7reverse	-.104	.024	-.092	.128	-.061	.012	.140
mis8	.073	.455	.320	.377	.064	.118	.423
mis9reverse	.120	.147	.032	.344	.147	-.052	.159
mis10reverse	.165	.279	.221	.164	.076	.106	.224
mis11	.157	.220	.413	.333	.096	.083	.096
mis12	.286	.555	.439	.530	.219	.138	.340
mis13reverse	1.000	.164	.084	.178	.124	-.094	-.040
mis14	.164	1.000	.535	.535	.233	.122	.595
mis15	.084	.535	1.000	.268	.062	.142	.347
mis16	.178	.535	.268	1.000	.304	.081	.430
mis17	.124	.233	.062	.304	1.000	.084	.150
mis18	-.094	.122	.142	.081	.084	1.000	.199
mis19	-.040	.595	.347	.430	.150	.199	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
mis1	6.8883	8.334	.080	.	.755
mis2	7.5798	8.270	.189	.	.748
mis3	7.5585	8.343	.104	.	.752
mis4	6.9894	7.715	.302	.	.741
mis5reverse	7.2606	7.907	.254	.	.745
mis6	6.8511	8.166	.168	.	.750
mis7reverse	7.2287	8.536	-.044	.	.766
mis8	7.3511	7.214	.547	.	.719
mis9reverse	7.3351	7.868	.211	.	.750
mis10reverse	7.2979	7.636	.370	.	.735
mis11	7.4255	7.817	.287	.	.742
mis12	7.4309	7.132	.598	.	.714
mis13reverse	7.5426	8.251	.170	.	.749
mis14	7.3351	7.067	.670	.	.709
mis15	7.3723	7.446	.493	.	.725
mis16	7.4255	7.166	.593	.	.715
mis17	7.1011	8.143	.175	.	.749
mis18	6.9787	8.043	.169	.	.752
mis19	7.3032	7.103	.566	.	.716

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	93	98.9
	Excluded[a]	1	1.1
	Total	94	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.661	.661	10

Item Statistics

	Mean	Std. Deviation	N
atsph1	2.2151	1.07187	93
atsph2reverse	1.6129	1.04291	93
atsph3	1.5806	1.02493	93
atsph4reverse	.8710	1.06553	93
atsph5	2.0108	1.06826	93
atsph6	1.1398	1.03830	93
atsph7	1.6989	1.02983	93
atsph8reverse	1.4301	1.05705	93
atsph9reverse	1.0645	1.04055	93
atsph10reverse	1.2473	1.03898	93

Inter-Item Correlation Matrix

	atsph1	atsph2reverse	atsph3	atsph4reverse	atsph5	atsph6
atsph1	1.000	.309	.311	.129	.283	.148
atsph2reverse	.309	1.000	.345	.121	.121	-.140
atsph3	.311	.345	1.000	.268	.371	.321
atsph4reverse	.129	.121	.268	1.000	.316	.115
atsph5	.283	.121	.371	.316	1.000	.155
atsph6	.148	-.140	.321	.115	.155	1.000
atsph7	.355	.184	.250	.024	.210	.091
atsph8reverse	.320	.310	.078	.011	.073	-.135
atsph9reverse	.095	.163	.199	.312	.078	-.039
atsph10reverse	.001	.210	.180	.078	.174	-.042

Inter-Item Correlation Matrix

	atsph7	atsph8reverse	atsph9reverse	atsph10reverse
atsph1	.355	.320	.095	.001
atsph2reverse	.184	.310	.163	.210
atsph3	.250	.078	.199	.180
atsph4reverse	.024	.011	.312	.078
atsph5	.210	.073	.078	.174
atsph6	.091	-.135	-.039	-.042
atsph7	1.000	.250	.181	.152
atsph8reverse	.250	1.000	.142	.150
atsph9reverse	.181	.142	1.000	.116
atsph10reverse	.152	.150	.116	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
atsph1	12.6559	21.598	.438	.305	.613
atsph2reverse	13.2581	22.476	.359	.289	.630
atsph3	13.2903	21.056	.532	.373	.594
atsph4reverse	14.0000	22.913	.300	.214	.642
atsph5	12.8602	21.991	.397	.245	.622
atsph6	13.7312	25.003	.099	.211	.679
atsph7	13.1720	22.383	.377	.207	.626
atsph8reverse	13.4409	23.336	.260	.208	.649
atsph9reverse	13.8065	23.310	.271	.163	.647
atsph10reverse	13.6237	23.824	.218	.113	.657

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	premaks	33.5000	94	8.78752	.90636
	postmaks	38.0213	94	7.50767	.77436
Pair 2	premis	7.7128	94	2.94437	.30369
	postmis	6.2819	94	3.25408	.33563
Pair 3	stereo-endor pre-test	3.4096	94	.95028	.09801
	stereo-endor post-test	2.6968	94	1.04783	.10808
Pair 4	desire-social-dis pre-test	4.2713	94	2.45351	.25306
	desire-social-dis post-test	3.5851	94	2.57431	.26552
Pair 5	preatsph	14.9785	93	5.21698	.54098
	postatsph	15.4624	93	4.93118	.51134

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	premaks & postmaks	94	.405	.000
Pair 2	premis & postmis	94	.730	.000
Pair 3	stereo-endor pre-test & stereo-endor post-test	94	.469	.000
Pair 4	desire-social-dis pre-test & desire-social-dis post-test	94	.728	.000
Pair 5	preatsph & postatsph	93	.673	.000

Paired Samples Test

		Paired Differences			
					95% Confidence ...
		Mean	Std. Deviation	Std. Error Mean	Lower
Pair 1	premaks - postmaks	-4.52128	8.95476	.92361	-6.35539
Pair 2	premis - postmis	1.43085	2.29726	.23694	.96033
Pair 3	stereo-endor pre-test - stereo-endor post-test	.71277	1.03303	.10655	.50118
Pair 4	desire-social-dis pre-test - desire-social-dis post-test	.68617	1.85638	.19147	.30595
Pair 5	preatsph - postatsph	-.48387	4.11152	.42635	-1.33063

Paired Samples Test

		Paired ... 95% Confidence Interval of the ... Upper	t	df	Sig. (2-tailed)
Pair 1	premaks - postmaks	-2.68716	-4.895	93	.000
Pair 2	premis - postmis	1.90138	6.039	93	.000
Pair 3	stereo-endor pre-test - stereo-endor post-test	.92435	6.690	93	.000
Pair 4	desire-social-dis pre-test - desire-social-dis post-test	1.06639	3.584	93	.001
Pair 5	preatsph - postatsph	.36289	-1.135	92	.259

T-Test

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
premaks	male	54	32.1296	9.46303	1.28776
	female	40	35.3500	7.50572	1.18676
postmaks	male	54	37.9815	8.33834	1.13470
	female	40	38.0750	6.31801	.99897
premis	male	54	8.4074	2.90587	.39544
	female	40	6.7750	2.76180	.43668
postmis	male	54	6.9444	3.67509	.50012
	female	40	5.3875	2.33833	.36972
stereo-endor pre-test	male	54	3.5370	.88941	.12103
	female	40	3.2375	1.01266	.16012
stereo-endor post-test	male	54	2.7315	1.10621	.15054
	female	40	2.6500	.97534	.15421
desire-social-dis pre-test	male	54	4.8611	2.41734	.32896
	female	40	3.4750	2.29813	.36337
desire-social-dis post-test	male	54	4.2130	2.85598	.38865
	female	40	2.7375	1.85357	.29308
preatsph	male	54	14.9815	5.10823	.69514
	female	40	14.9000	5.38183	.85094
postatsph	male	53	15.1509	5.00921	.68807
	female	40	15.8750	4.85792	.76810

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of
		F	Sig.	t
premaks	Equal variances assumed	1.672	.199	-1.777
	Equal variances not assumed			-1.839
postmaks	Equal variances assumed	.789	.377	-.059
	Equal variances not assumed			-.062
premis	Equal variances assumed	.576	.450	2.750
	Equal variances not assumed			2.771
postmis	Equal variances assumed	7.068	.009	2.349
	Equal variances not assumed			2.503
stereo-endor pre-test	Equal variances assumed	1.873	.174	1.522
	Equal variances not assumed			1.492
stereo-endor post-test	Equal variances assumed	.776	.381	.371
	Equal variances not assumed			.378
desire-social-dis pre-test	Equal variances assumed	1.007	.318	2.806
	Equal variances not assumed			2.828
desire-social-dis post-test	Equal variances assumed	5.846	.018	2.851
	Equal variances not assumed			3.031
preatsph	Equal variances assumed	.002	.964	.075
	Equal variances not assumed			.074
postatsph	Equal variances assumed	.118	.732	-.699
	Equal variances not assumed			-.702

Independent Samples Test

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
premaks	Equal variances assumed	92	.079	-3.22037
	Equal variances not assumed	91.532	.069	-3.22037
postmaks	Equal variances assumed	92	.953	-.09352
	Equal variances not assumed	91.939	.951	-.09352
premis	Equal variances assumed	92	.007	1.63241
	Equal variances not assumed	86.424	.007	1.63241
postmis	Equal variances assumed	92	.021	1.55694
	Equal variances not assumed	90.164	.014	1.55694
stereo-endor pre-test	Equal variances assumed	92	.132	.29954
	Equal variances not assumed	77.648	.140	.29954
stereo-endor post-test	Equal variances assumed	92	.711	.08148
	Equal variances not assumed	89.163	.706	.08148
desire-social-dis pre-test	Equal variances assumed	92	.006	1.38611
	Equal variances not assumed	86.412	.006	1.38611
desire-social-dis post-test	Equal variances assumed	92	.005	1.47546
	Equal variances not assumed	90.601	.003	1.47546
preatsph	Equal variances assumed	92	.941	.08148
	Equal variances not assumed	81.660	.941	.08148
postatsph	Equal variances assumed	91	.486	-.72406
	Equal variances not assumed	85.441	.485	-.72406

Independent Samples Test

		t-test for Equality of Means	
		Std. Error Difference	95% Confidence ... Lower
premaks	Equal variances assumed	1.81227	-6.81969
	Equal variances not assumed	1.75120	-6.69865
postmaks	Equal variances assumed	1.57464	-3.22089
	Equal variances not assumed	1.51178	-3.09608
premis	Equal variances assumed	.59364	.45338
	Equal variances not assumed	.58912	.46136
postmis	Equal variances assumed	.66293	.24030
	Equal variances not assumed	.62194	.32138
stereo-endor pre-test	Equal variances assumed	.19685	-.09143
	Equal variances not assumed	.20071	-.10008
stereo-endor post-test	Equal variances assumed	.21961	-.35468
	Equal variances not assumed	.21551	-.34672
desire-social-dis pre-test	Equal variances assumed	.49390	.40519
	Equal variances not assumed	.49015	.41179
desire-social-dis post-test	Equal variances assumed	.51756	.44754
	Equal variances not assumed	.48677	.50850
preatsph	Equal variances assumed	1.09019	-2.08374
	Equal variances not assumed	1.09878	-2.10448
postatsph	Equal variances assumed	1.03570	-2.78135
	Equal variances not assumed	1.03122	-2.77425

Independent Samples Test

		t-test for Equality of Means: 95% Confidence Interval of the ... Upper
premaks	Equal variances assumed	.37895
	Equal variances not assumed	.25791
postmaks	Equal variances assumed	3.03385
	Equal variances not assumed	2.90904
premis	Equal variances assumed	2.81143
	Equal variances not assumed	2.80346
postmis	Equal variances assumed	2.87358
	Equal variances not assumed	2.79251
stereo-endor pre-test	Equal variances assumed	.69050
	Equal variances not assumed	.69916
stereo-endor post-test	Equal variances assumed	.51764
	Equal variances not assumed	.50968
desire-social-dis pre-test	Equal variances assumed	2.36703
	Equal variances not assumed	2.36044
desire-social-dis post-test	Equal variances assumed	2.50339
	Equal variances not assumed	2.44242
preatsph	Equal variances assumed	2.24670
	Equal variances not assumed	2.26745
postatsph	Equal variances assumed	1.33324
	Equal variances not assumed	1.32614