COMMON MISCONCEPTIONS AND ATTITUDES TOWARD PSYCHOLOGY AND MENTAL HEALTH: A MALAYSIAN CONTEXT

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This study examines the Malaysian public’s knowledge and attitude towards psychology and mental health. The study aims to help improve the public understanding of the diversity of psychology, which is far beyond just simply common sense or limited to the study of mental illness. In addition, it is also the objective of this study to examine how much the general public knows about mental health as well as to explore effective tools to promote good mental health.

This research consists of two studies. Study one, a household survey, involved face to face interviews with a representative sample of the Malaysian population residing in Klang Valley. A total of 587 respondents aged 18 and above (90% response rate) responded to a series of questions in relation to psychology and mental health issues developed based on previously published studies and interviews with psychologists/psychology instructors, sociologists, social workers, and psychology graduates. Respondents were requested to answer ‘Yes’, ‘No’, ‘I don’t know’, as well as to specify how they learned about the information. Following that, an attitude scale was presented to the participants, in which respondents were requested to rate how much they agree to the statements. The findings indicated that the majority of the respondents (90%) did not have good knowledge of psychology and mental health issues. However, all respondents displayed a more or less neutral attitude towards psychology (the profession) as well as mental health issues. The results seemed to suggest that respondents’ knowledge level is not related to their attitude level. Factors predicting good mental health knowledge, attitude, and help-seeking tendency for mental health issues were explored. Regression analysis indicated that age, ethnic background, religion, education level, and residential location are the few
demographic characteristics found to be significantly related to either respondent’s knowledge, attitude towards mental health issues or help seeking behaviour.

The second study was conducted using a cross-sectional quantitative survey of 246 university/college students enrolled in psychology courses at the undergraduate level in four universities/colleges in Klang Valley. A scale, similar to the first study, with additional items included, was developed to examine students’ attitude and knowledge about psychology and mental health. The findings indicated that undergraduate students harbor misconceptions about psychology regardless of their declared major (psychology and non-psychology major) and demographic characteristics. Interestingly, students’ knowledge level in both psychology and mental health were significantly better than the general public. Among the 246 student participants, 83 student participants who were enrolled in the Introductory Psychology course agreed to take part in a longitudinal study. The same questionnaires were redistributed to the students upon completion of the course. The pre- and post-course design was conducted to examine if introductory psychology course would help dispel misconceptions. Results indicate that the number of correct responses increased significantly suggesting that misconceptions about psychology and mental health can be dispelled.

Based on the research findings, it is obvious that the knowledge of psychology and mental health among general public is very limited. Although students enrolled in psychology courses are better informed, misconceptions prevailed. Steps should be taken to improve public’s understanding and attitude; some suggestions include positive image presentation, dissemination of accurate information by the mass media,
which was rated as the primary source for information on psychology and mental health.
ABSTRAK

Kajian ini dijalankan untuk menyelidik ilmu pengetahuan dan sikap terhadap bidang psikologi serta kesihatan mental di kalangan rakyat Malaysia. Tujuan penyelidikan ini adalah untuk meningkatkan pegetahuan orang ramai tentang bidang psikologi, isu-isu berkenaan dengan kesihatan mental serta menerokai kaedah-kaedah untuk mengalakkan pengamalan kesihatan mental yang baik.

pengetahuan dan sikap terhadap isu-isu kesihatan mental atau kecenderungan untuk memperolehi bantuan.


Merujuk kepada keputusan penyelidikan ini, adalah jelas bahawa pengetahuan psikologi dan kesihatan mental di kalangan orang ramai adalah terbatas. Walaupun pelajar yang berdaftar dalam kursus psikologi mempunyai tahap pengetahuan tentang bidang psikologi serta isu-isu kesihatan mental yang lebih tinggi, salah faham masih wujud. Langkah-langkah perlu diambil untuk meningkatkan tahap pengetahuan dan
sikap orang ramai, cadangan-cadangan adalah seperti meningkatkan imej psikologi, penyebaran maklumat yang tepat dari media masa, kerana media masa merupakan salah satu sumber utama dari mana maklumat mengenai psikologi dan kesihatan mental dipelajari oleh masyarakat umum.
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CHAPTER I – INTRODUCTION

1.1 Overview

As a country develops and urbanizes, life becomes more complex and problems related to social, cultural, and economic change arise. Malaysia, a fast growing country, has embarked on an ambitious vision of becoming a developed country by the year 2020. With the rapid growth of the country, the population, especially those living in urban cities, often strives to cope with the fast pace of change and the high stress and tension faced at work, in school, and in the society. These stress and unhealthy lifestyles often contribute to more complicated health problems like cardiovascular disease, cancer, and mental health problems (Santrock, 2002). Although the well-educated generation is more health conscious, mental health remains neglected most of the time.

Mental well-being is instrumental to quality of live and personal growth. Thus, achieving better mental health is one of the top priorities for the 9th Malaysian Plan (National Institute of Health [NIH], 2006). Yet, only a minority of people knows what mental health is, let alone the complications that the negligence of mental health may lead to. Very few people with mental disorder seek proper treatment, largely due to myths, misunderstanding and stigma in the society (Bolton, 2003). Stigma and discrimination often stem from ignorance and fear (Ip, 2002); myths and misunderstandings are often rooted in a lack of knowledge. The prevalence of stigma and misunderstanding among the population has often led to negative attitudes and perceptions, not only towards people with mental health problems, but mental health
professionals, e.g. psychiatrist, psychologist, and the entire psychology profession (Janda, England, Lovejoy, & Drury, 1998). In addition, mental health information for the public is mainly disseminated from the mass media in an emotive fashion. Hence, mental disorder is often viewed as another name for insanity (Ip, 2002); and psychology is often mistaken as the study of mental disorders. However, psychology is much more than this.

1.2 Psychology and Mental Health

Psychology is generally defined as “the scientific study of behaviour and mental processes” by most introductory psychology text book (e.g. Morris & Maisto, 2003; Santrock, 2002; Zimbardo, Weber, & Johnson, 2000). However, among the general public, the word “psycho” in psychology automatically leads people into thinking about psychopaths, mentally offset people, and of course, crazy people. In addition, possible because of the movies people watch, where they would find psychologists or psychiatrists treating these “psycho” patients, the public tends to relate the entire term “psychology” with what they know about mental disorders. Having said that, psychology and mental health are indeed closely related, as both deal primarily with human behaviour and cognitive processes.

According to the World Health Organization (WHO) (2002), mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productive and fruitfully, and is able to make a contribution to his or her community”. In Malaysia, the National Policy on Mental Health has also defined mental health as “the capacity of the individual, the
group and environment to interact with one another to promote subjective being and optimal functioning, and the use of cognitive, affective and relational abilities, towards the achievement of individual and collective goals consistent with justice” (Jamaiyah, 2000, p.155). Both definitions agree that “mental health” and “mental illness” are not opposites. In other words, the absence of a recognized mental disorder is not necessarily an indicator of mental health. The area of mental health is wide and varied, and the concepts of mental health are also strongly affected by individual’s culture and society.

The concepts of mental health remain to be addressed minimally in many parts of the world and Malaysia is no exception (Haque, 2001). This is largely due to the lack of knowledge and the misunderstanding of mental health issues. In general, the misunderstanding of mental health and the stereotype of the role of a psychologist exclusively as a clinician can lead to a person who has visited a psychologist’s office being stigmatized. Although the general public is beginning to understand psychology and mental health better, we are still in the early stages of this enlightenment. Due to the stigma associated with mental illness, many people do not seek out help (Vogel, Wade, & Hackler, 2007; “Many reluctant to seek help from psychologist”, 2006; Haque, 2005). People with psychological problems are hesitant to discuss their concerns, and hence many psychological problems are neglected.

In 1989, a review article by Bhurga (1989) was published focusing on studies of public attitudes towards mental illness, mentally ill people and their treatment environs. Ever since then, reforms of mental health care have been initiated or have made further progress in many countries (Angermeyer & Dietrich, 2006).
Unfortunately, many national programmes for mental health promotion are also faced with a great number of obstacles which in many instances slow down or even stop their development. Stigma (Sartorius, 2002; Mohit, 2001), misconceptions (Mohit, 2001) and the negative attitude of the general public (Mohit, 2001) are the most important obstacles to the provision of mental health care for people with mental health problems. According to Mohit (2001), examples of this major, universal phenomenon include:

- Mental illnesses are untreatable
- Mental patients are dangerous
- Treatment of mental illnesses is a luxury and does not constitute high priority
- Mental patients are not capable of performing any useful social role
- Mental illness, mental retardation and dementia are the same
- All mental illnesses have metaphysical causes

In addition, knowledge and attitude of different levels of professionals also affect public confidence towards mental health care (Mohit, 2001). Many times, mental health professionals like psychologists and pharmacists stand against treatment modalities like medications or Electro-convulsive Therapy (ECT), psychiatric treatment in which seizures are electrically induced in anesthetized patients for therapeutic effect, prescribed by physicians. Patients and family therefore do not know what treatment would be best for their conditions. Moreover, there is also evidence of negative attitudes held by mental health professionals, e.g. clinical psychologist. Servais and Saunders (2007) conducted a survey with 306 clinical psychologists, where respondents were asked to rate the effectiveness,
understandability, safety, worthiness, desirability and similarity (to the respondent) of persons with moderate depression, borderline features and schizophrenia. Results indicated that psychologists perceive these individuals differently with respect to their characteristics, suggesting that mental health professionals are no exception in subscribing to bias and stereotypes. The findings were not dissimilar to previous studies, e.g. Psychologists are less willing to interact socially with or to accept as a therapy client a person with AIDS than a person with leukaemia (Crawford, Humfleet, Ribody, Ho, & Vickers, 1991).

Although several programs have been launched around the globe, aimed at either improving public mental health literacy or reducing the stigmatization of those suffering from mental disorders, a more recent review by Angermeyer and Dietrich (2006) showed that misconceptions about mental disorders still prevail among the general public. A substantial part of the public cannot recognize specific mental disorders. Comparison between various regions and ethnic groups within countries as well as comparisons between countries reveal considerable differences in beliefs about mental disorders and in attitudes towards people with mental illness. The review also provided some indications that people from non-western ethnic groups are less aware of and knowledgeable about mental illness and tend to attribute the cause of the illness more frequently to the affected individual (Angermeyer & Dietrich, 2006), suggesting that understanding individuals' background may be pertinent in promoting mental health.

“Any programme for action should start from a realistic Situation Analysis” (Mohit, 2001). In order to provide a better insight into the mechanisms of and
contextual influences on stigma and mental health literacy for successful anti-stigma interventions and mental health promotion, this present study was designed to study the public’s belief or misconception(s) if any, and the attitude level in Malaysia. Examining public’s knowledge of psychology also helps to answer questions in relation to psychologists’ public image as mental health professionals in this country.

1.3 Misconceptions of Psychology and Mental Health

Misconceptions are defined as the inaccurate understanding of a concept, or beliefs that are held contrary to known evidence (Hynd & Guzzetti, 1993). These misconceptions, often derived from years of personal experiences and observations, may have deeply ingrained in the mental map of a person.

Misconceptions about the field of psychology are many, often evolve from misinterpretations of the discipline, and infiltrate the general public through interpersonal communication, and most of all – the media (Schneider, 1990). Pallack and Kilburg (1986) suggested that the field of psychology depends heavily on media sources such as television, radio, print publications and more recently, the internet to convey information, particularly about psychological research that is likely to be of interest to the general public. However, the public should be aware that not all psychological information that is presented for public consumption comes from credible sources. Journalists, reporters and media personnel who are not trained in psychological research may have a problem making sound decisions about the best information to present to the public (Santrock, 2002). In addition, the media often focus on sensationalistic and dramatic psychological findings to capture attention.
Without accuracy in the communication of psychological information, negative stereotypes and impressions can surface. This untruthful information tends to damage the image of psychology and can be threatening to audiences whose primary exposure to psychological information is the media.

Mass Media and Misconceptions

Most of what we know does not come from personal experience, in fact, Fiske (1987) argues that mass media is the most powerful medium for framing public consciousness. Following that, considerable research has also concluded that mass media is the public’s most significant source of both correct information and misinformation about psychological issues, particularly issues in relation to mental illness (e.g. Anderson, 2003; Francis, Pirkis, Dunt, & Blood, 2001), however, not necessarily always accurate, e.g. the negative portrayals of psychologists’ professionalism (Sleek, 1998) and psychological interventions (Orchowski, Spickard, & McNamara, 2006), e.g. the depiction of how Electroconvulsive Therapy (ECT) can be used unethically (Fagerson & Washburn, 2008). Television and radio are principal sources of information for a large percentage of the public, and the internet is one of the fastest growing media outlets for information (Anderson, 2003). Although the public seems to be exposed to many psychological and mental health issues, it is hard to gauge the impact of this information, as well as how much the public actually understands. Exposure alone does not tell us anything about the public’s understanding or attitude about the field.
With regards to media portrayal of mental health and illness, one study found that media representations of mental illness are so powerful that they can override people’s own personal experiences in relation to how they view mental illness (Philo, 1993, cited in Edney, 2004). In general, media depictions of mentally ill people tend to have 3 characteristics. The first is unpredictability, in which there is no sure way of telling who might go berserk. The second aspect is the element of danger and revolves around crime and involves violence. These characters, both the mentally ill and the ‘ex-mental patient’ are cast mostly in the role of deviants whom are feared, shunned, shamed and punished. Finally, the image of mental illness usually contains a touch of evil.

In 2001, the Australian government published a large-sale literature review examining the portrayals of mental health in the media (Francis et al., 2001). The review determined that media representations of mental illness promote false and negative images and stereotypes. The negative media portrayals of mental illness were found to be strongly related to public’s negative attitudes toward the issues. Similar findings were reported in other countries, namely Canada (e.g. Edney, 2004), New Zealand (e.g. Wilson, Nairn, Coverdale, & Panapa, 2000), United States of America (e.g. Wahl, 2001; 1992; 1989), United Kingdom (e.g. Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Cutcliffe & Hannigan, 2001) and many developing countries (Lauber & Rössler, 2007). This can be partly explained by the fact that the fear that society has towards the mentally ill, and the crimes that are committed render the determined attitude that they should be punished harshly regardless of their disorder. Society desires to see justice implemented rather than support the beneficial treatment that could be applied to the mentally ill. As a result, people may become
less empathetic or may even decide to stay away from the mentally ill. Clearly, inaccurate information does affect the image of the mentally ill in the public eye.

Culture and Misconceptions

Although media has always been ranked as the primary source of misconceptions in past literature, the acceptance and understanding of psychology and mental health are heavily influenced by the individual’s culture, including spiritual and religious backgrounds (Haque, 2005). The concept of psychology and mental health varies greatly across cultures and often within the same culture. The treatments of mental problems also vary from culture to culture.

Malaysia comprises of mainly three main ethnic groups – Malays (65.9%), Chinese (25.3%) and Indian (7.5%)\(^1\). Spiritual and religious factors play a vital part in mental health among the Malays. For example, “psychology” is practised informally in the treatment of “Santau” (poison or black magic) by the Malay “Bomohs” (traditional healers) who help clients with mental disorders (Haque, 2005). In general, psychological problems are addressed as a physical illness in order to avoid the label of mental illness and the stigma that accompanies it. Many believe that psychological symptoms are indicative of the loss of “Semangat” (soul), which makes them physically weak, resulting in confusion. Other culture aspects relate mental illness to the “wind” present in the stomach and in the nerves and blood vessels that cause hallucinations and delusion. A third common belief is often related to the possession by the “Jin” (Genie).
Among the Chinese, excessive, unbalanced, or undisciplined emotions are primarily the reason for any kind of physical and mental illness (Haque, 2005). One of the key concepts in Chinese medicine is that the body is regulated by a circulation of chi (air or breath) that maintains the physical body and the mental and spiritual processes in the body. Abnormal emotions affect the functions of the chi, resulting in insufficient or blockage of chi, and therefore lead to the loss of good health.

The public’s confusion of psychologists with psychiatrists has been frequently noted in the Chinese population due to the translation of the words “psychologist” and “psychiatrist” from English (Wai, 2002). “Psyche” is translated as “Xin (心, heart – implies the mind and mental activity, in some cases include chi) Li (理, pattern)”; “-logy” is translated as “Xue” (学, body of language); and “-gist” is translated as “Jia” (家, the expert). In other words, “psychologist” is translated as an expert in studying the pattern of the mind and mental activities. The Chinese translation of “psychology/psychologist” is ambiguous as an expert in studying the pattern of mental processes may include psychiatrist, palm readers, feng-shui master, and other professions. The term “expert in psychology” also fostered the label of “Xin Li (心理, psycho) Yi Sheng (医生, doctor)”, which carries the meaning of a doctor who use techniques used by psychologists to treat mental illness. In fact, the term “psycho-doctor” was created by the lay thinkers, believing that any individual holding the title “doctor” must be a medical doctor. The correct translation for “psychiatrist” is “Jing Shen Ke (精神科, psychiatry) Yi Sheng (医生, doctor)”, while a psychologist

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holding a doctorate degree/ PhD qualification should be translated as “Xin Li Xue Bo Shi” (心理学博士). Nevertheless, the term “psycho-doctor” has always been generalized to include psychologists. Hence, psychology is often being related to the study of mental disorders. As a result, lay thinkers believe that all psychologists possess medical degrees.

To Indians, mental illnesses are often considered a “curse from God” or a punishment for “sins of the past life” or “manifestations of evil spirits” (Mukalel & Jacobs, 2005). Symptoms of mental illness are often interpreted along religious lines. Help-seeking from is highly unlikely due to the fear of rejection by the community, as well as concerns about marriage.

A sizable number of the Chinese in Malaysia are Christians and Buddhist, while the majority of Indians are Hindus. Hence, spiritual and religious factors also contribute to the perception of psychology and mental health among Chinese and Indians. According to Christianity, mental disorders are viewed normal life challenges and true mental health is achievable with the right relationship with God. Buddhists view mental illness as Karma – the outcome of negative behaviours, and finally Hinduism attributes mental health to diet and relationships with the gods.

*Personal Experience and Prior Exposure*

Personal factors and prior exposure to psychology, therapy and mental illness also influence how psychology and mental health are perceived. In a survey on psychologists’ public image conducted in Australia, Hartwig and Delin (2003) noted
that individuals with prior experience with psychotherapy perceived psychologists more favourably than did individuals without the experience. One explanation for this finding was that the experience had provided them with greater knowledge of what psychologists do. In terms of personal factors, younger respondents, and also those with a lower income were found to have more positive opinions of psychologists.

All in all, figure 1.1 summarized the various factors contributing to the misconceptions of psychology and mental health issues.

Figure 1.1
Summary of the factors contributing to misconceptions

1.4 Attitude towards Psychology and Mental health

Much research has shown that the familiarity with mental health (knowledge) is positively related to the acceptance of people with mental health problems (Angermeyer & Dietrich, 2006). Consequently, facilitating the contact with people with mental health problems may be effective in reducing negative attitudes. However, negative attitudes towards mental illness are deeply rooted in society. It is hard to pinpoint who exactly is to blame for the lack of understanding of mental
health issues. A lot of times, the lack of mental health resources, the lack of discussion or effective treatments may play important roles, but too often it is due to people’s fear of being labelled according to the age-old stereotypes of people with mental health problems. To admit a problem with your mind is just like admitting a personal failure. Similarly, to seek help from mental health professionals, e.g. psychologist, psychiatrist, is just like telling everyone that you have mental health problems.

Attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of good or bad, harmful or beneficial, pleasant or unpleasant, and likable or dislikeable (Adjen, 2001). The concept of mental illness is often associated with fear of the potential threat of mentally ill patients. This has led to the mentally ill population continued to be stereotyped and stigmatized. A stereotype is a belief or a set of beliefs about people in a particular social category (Rogers, 2003). Once a stereotype is activated, we react to a person’s “membership” in the category, not to the characteristics of the individual person. Stigma, by comparison, is defined as a mark or flaw resulting from a personal or physical characteristic that is viewed as socially unacceptable.

Most psychological investigators agree that an attitude represents a person’s emotional evaluation of an entity and that an attitude follows from a belief (Adjen & Fishbein, 1980). According to the Theory of Reasoned Action (Adjen & Fishbein, 1980), behaviour results from an intention to carry out the behaviour. This behavioural intention refers to an individual’s commitment that is strongly affected by the individual’s attitude and the subjective norms – the beliefs about what others
think. Beliefs and attitudes were once thought to have a very simple relationship to behavior. Psychologists once proposed that behavior followed directly from attitudes. In fact, many people are highly influenced by the approval or disapproval of people around them, as well as by the social and cultural groups to which they belong. Such influence can be supportive or destructive, as negative beliefs may interfere and jeopardize the attainment of health action.

Certain norms become salient to an individual very early in life. These norms may come from family background and up-bringing or the expectations from cultural groups. Ethnic traditions, religious beliefs, peer pressure often play important roles. Although past research has shown that attitude towards people with mental disorders vary to a small extent only depending on sociodemographic characteristics, this is certainly an area that is worth looked into, particularly in a multi-racial country like Malaysia.

1.5 Present Study

In Malaysia, the word “psychology” is no longer new in our everyday vocabulary. Since 1993, there was an increased interest in monitoring psychology from being misperceived and misused. This was reflected in Ismail (1993) where Dato’ Dr. Siti Zaharah Sulaiman, former deputy minister of the Prime Minister Department, reminded all psychologists in Malaysia to educate the society on the correct interpretation of psychology so that the knowledge will not be misused. In addition to that, Dato Dr. Siti Zaharah Sulaiman also suggested that only qualified psychologists are allowed to practice. Ethics and code of conduct should also be
outlined. This has clearly shown that the misconception of psychology is not a new issue, and this concern continues today.

This issue is not confined to only societies where psychology has recently gained acceptance and popularity. In response to the apparent lack of appreciation for psychology, professional bodies in many countries, particularly those in the United States, have increased the attempts to improve the accuracy of the public’s perception of the profession. In 2005, Dr. Ronald Levant, the president of APA, made “Making Psychology a Household Word” one of his presidential initiatives, hoping that psychologists would spread correct information about psychology to their local communities. Some of the promotional campaigns include research work, public education campaigns and awareness programmes. The majority of these programmes were launched using various media to educate the public about the importance of mental health and the role of psychologists.

Since 1977, much work (e.g. Wood et al., 1986; McCutcheon, 1991; Jorm et al., 1999, Taylor & Kowalski, 2004) has been done both to investigate as well as to explore the public perceptions and knowledge about psychology and mental health. However, because the majority of this research was conducted in the west, there is limited published information in this area in Malaysia. Although the public seems to be exposed to a substantial amount of psychology and mental health issues, much effort is required in order that mental health can be effectively promoted, myths be dispelled, and quality of life be improved. This is one reason why the present research is valuable.
Research Objectives

The objectives of the present study include:

1. To investigate the knowledge level and attitude of the general public towards psychology and mental health;
2. To compare the knowledge level of the general public with students who are undergoing training in psychology, a field that is closely related to mental health;
3. To develop local scales to measure the knowledge level and attitude towards psychology and mental health;
4. To understand factors affecting the knowledge level and the attitude of the general public;
5. To examine the relationship between knowledge and attitude, and the tendency of people seeking help from mental health professionals when necessary;
6. To examine if knowledge level can be enhanced through an introductory psychology course, or basic introduction to psychology, and devise strategies to enhance a more positive public attitude.
Research Questions

In particular, the present study aims to address:

1. What is the local community’s attitude towards psychology and mental health?
2. What is the level of knowledge of the general public of psychology and mental health? From what sources have they gained this knowledge?
3. What factors affect the local community’s knowledge level and attitude towards psychology and mental health?
4. Does knowledge and attitude towards mental health have any effect on the intention of people seeking help from mental health professionals when necessary?
5. Do students who are currently enrolled in a psychology program possess better knowledge level of psychology than the general public who has no exposure to the training of psychology?
6. Can formal training in psychology (e.g. introductory psychology course) dispel misunderstanding (if any) and promote better understanding of psychology and mental health?
1.6 Significance of the Present Study

Effective prevention of mental health problems, and early identification and intervention when mental health problems occur are instrumental to quality living. However, prior to developing and implementing an effective health promotion programme, it is necessary to investigate the level of knowledge about mental health and wellbeing of the general population and to examine people’s attitudes to mental health issues. Understanding the physical and social barriers that prevent people from seeking help is paramount.

The present study contributes significantly to the knowledge of public attitudes towards psychology and mental health. The study first identifies important factors affecting public’s knowledge and attitude, and then illustrates the tendency of health seeking which are important to devise appropriate strategies, programmes and activities to raise public awareness and promote positive mental health and wellbeing. The identification of any misconception attached to the role and the training of a psychologist will also enhance public’s confidence in seeking help from mental health professionals beside psychiatrists. This study will help steer public education in a positive direction.

The present study is also designed to examine the possibility of dispelling incorrect beliefs about psychology and reducing misconceptions in relation to mental health through formal training in psychology based on studies previously published in this area (e.g. Taylor & Kowalski, 2004, Thompson & Zamboanga, 2004). This is important for two reasons. Firstly, the common feature of the
The introductory psychology course and many lower-level psychology courses are designed to clarify some of the popular misconceptions about psychology and to introduce the application of psychology in other professions. It is hypothesized that students would benefit from the introductory psychology course, where psychological misconceptions (if any) would decline, however the impact may be minimal. This was explained by Thompson and Zamboanga (2003) that people in general are likely to be influenced by pre-existing assumptions and beliefs when introduced to new information. Once inaccurate information becomes fixed, new information is often distorted or ignored, making the acquisition of new (accurate) information difficult. Hence, knowing the level and type of misconceptions students bring to the psychology course is essential for the planning and deciding on the content of the course, particularly if instructors intend to build on these beliefs in a way that helps students achieve more sophisticated understandings (Kowalski & Taylor, 2004). Findings from the present study would therefore provide constructive feedback to instructors on how the introductory course should be conducted.

Secondly, at present, psychology courses are only available in colleges/universities. However, many countries, e.g. United Kingdom, the United States of America, Canada, Australia, Japan, Taiwan, Hong Kong, have or are beginning to introduce psychology to secondary school (high school) students. For a long time, developing countries lacked highly trained professionals in the field of mental health (Mohit, 2001). When younger students are better informed about psychology and the role a psychologist could play in promoting mental health, more graduates may consider a career in psychology.
1.7 Organization of the Thesis

This thesis is composed of 10 chapters. Chapter 1 introduces the background of the study. Chapter 2 illustrates the mental health profile in Malaysia. Chapter 3 illustrates the training of psychology in Malaysia. Chapter 4 and 5 provide a literature review of studies conducted regarding attitude and understanding of psychology and mental health. Chapter 6 describes the conceptual framework and the importance of understanding knowledge and attitude. Chapter 7 explains the development of the scale, while Chapter 8 explains the research design and methodology of the study. Chapter 9 describes the findings. Chapter 10 provides a discussion of the results, implication and recommendations stemming from the research.
CHAPTER II – MENTAL HEALTH IN MALAYSIA

2.1 Introduction

This chapter examines the mental health profile in Malaysia. It illustrates the changes and trends in government policy towards mental health services, promotions and the latest government intention to improve community’s knowledge and attitude towards mental health and mental health services.

2.2 The Definitions

Definition of ‘Mental Health’

The definition of mental health is not static. Its definition is strongly affected by cultural differences, subjective assessments, and competing professional theories (WHO, 2007). It is commonplace to view mental health and mental illness as two ends of the same continuum. The argument that would follow from this philosophical conceptualization is that it is impossible to be healthy and ill at the same time (Haque, 2001). All along, definitions of mental health are usually oriented towards “mental disorders” in the actual sense, or in practice. The term is used interchangeably with the freedom from psychiatric symptoms, or the absence of psychiatric disorders, positive emotional and psychological health, and an absence of stress (Haque, 2001).

However, there have been significant developments in the thinking about mental health globally. It is seen in a broader scope, recognizing that an individual’s
mental health is influenced by numerous factors, including socio-economic conditions, relationships with people, the physical environment, and other intrinsic factors such as physical health or coping skills (Jamaiyah, 2000). Hence, according to Jamaiyah (2000), the more recent definition of mental health has included themes such as:

- Psychological and social harmony and integration
- Quality of life
- Self-actualization
- Effective personal adaptation
- Effective interaction between individual and environment

In short, the current definition of mental health is not constrained to the presence or absence of mental disorders, nor does it apply that mental health and mental disorders are opposite poles on a single continuum.

Definition of ‘Mental Disorder’

Mental Disorder is a diagnosable illness that significantly interferes with an individual’s cognitive, emotional or social abilities. There are different ways of defining mental disorders. The criteria used to define cases might be broad or narrow, and more or less operationalised. Narrow criteria include only the most clear-cut and severe cases. Internationally, there exist two widely established systems that classify mental disorders – Chapter V of the International Classification of Diseases (ICD-10), produced by the World Health Organization (WHO, 1992), and the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) produced by the American
Psychiatric Association (1994). Both DSM-IV and ICD-10 list categories of disorder and provide standardized criteria for diagnosis. For example, major depression according to DSM-IV is very similar to severe depressive episode in ICD-10. The criteria for major depression according to DSM-IV include either depressed mood most of the time or loss of interest or pleasure in most activities with at least 4 of 8 additional symptoms including appetite change, sleep disturbance, psychomotor agitation/retardation, fatigue, sense of guilt, difficulties concentrating and recurrent suicidal thoughts. For diagnosis of major depression, the symptoms need to be present for a period of at least 2 weeks while the symptoms should not be accounted for by bereavement or psychological effects of substance use or medical condition.

The recognition and understanding of mental disorders has changed over time. Definitions, assessments, and classifications of mental disorders can vary greatly across cultures and often within the same culture (Haque, 2001), but guideline criterion listed in the ICD, DSM and other manuals are widely accepted by mental health professionals.

*Definition of ‘Mental Health Problem’*

A mental health problem is defined as a disruption in the interaction between the individual, group and the environment. The disruption may arise out of factors within the individual, or may arise from external causes. A mental health problem interferes with a person’s cognitive, emotional or social abilities; however the intensity or duration of the signs and symptoms is insufficient to meet the criteria for
any mental disorder as defined in DSM-IV or ICD-10 (Jamaiyah, 2000). Nevertheless, it may still have substantial impact on the person and others around.

2.3 Global Awareness of Mental Health

Numerous large-scale surveys of the prevalence of mental disorders in adults in the general population have been carried out since the 1980s based on self-reported symptoms assessed by standardized structured interviews. Mental disorders have been found to be common, with approximately 25% of people in most countries reporting sufficient criteria at some point in their life, both in developed and developing countries (WHO, 2007). Mental disorders are among the risk factors for communicable and non-communicable diseases. They can contribute to unintentional and intentional injury (WHO, 2007).

Today, mental health problems rank fifth out of the 10 leading causes of disability worldwide (WHO, 2007). Based on the Global Burden of Disease Survey in 1990, mental and neurological disorders accounted for 10% of the total Disability Adjusted Life Years (DALY) lost due to all diseases and injuries (Abdul Aziz, 2003). This has subsequently increased to approximately 13% in 2004, and is estimated to increase to 15% by the year 2020. Common disorders which usually cause severe disability include depressive disorders, substance abuse disorders, schizophrenia, epilepsy, Alzheimer’s disease, mental retardation, and childhood/adolescence disorders.
As we enter the new Millennium, developing countries face a number of burning issues that affect all aspects of health including mental health due to population explosion, unplanned urbanization, scarcity of human resources, and a number of cultural issues, and Malaysia is no exception. In Malaysia, mental ill-health makes up a remarkable part of the burden of diseases measured in DALY.

2.4 Epidemiology of Mental Disorders

A study on promotion of mental health conducted on a sample of 5651 adults and 2075 children using the General Health Questionnaire (GHQ-28) showed that the prevalence of mental health problems in Malaysia is estimated at 18.8% (WHO, 2005). Prevalence of mental disorders was associated with sex, with females representing the most vulnerable sector, i.e. 1.5 times higher than male; age (below 25 and above 65 years old), ethnicity (Indians, followed by Chinese and Malays), marital status, i.e. widowed (29.2%) or divorced (21.3%), low education level (23%), employment (unemployed, 27%), income (the lower income group, 13.8%), physical health status (those with physical illness, e.g. asthma, cancer, diabetes) and disability (physical, hearing and speech). The commonest psychological problems reported were loss of sleep because of worry (18.8%), feeling unhappy and depressed more than usual (11.8%), and feeling constantly under strain (11.7%).

The prevalence of psychiatric morbidity in Malaysia is also high. The 2nd National Morbidity Survey (1996) reviewed that the prevalence rate amongst the adults was reported about 10.7%. Among Malaysian children between 5 and 15 years of age, the survey found 13.0% with psychiatric morbidity. There was no significant
difference between male and female children, but again the prevalence was highest among the Indian children (24.6%) compared to Malay (11.9%) and Chinese children (3.6%). A higher prevalence rate was also found among children residing in rural areas (28%) compared to children residing in urban areas (26.1). Here, the commonest problems reported were perceived learning difficulties (12.5%), frequent headaches (8.7%), not playing with other children (5.9%), poor sleep (4.6%) and fear and nervousness for no apparent reasons (4.6%).

If these figures are extrapolated to the present population of 25 million, it is estimated that about 2.6 million Malaysians aged 5 years and above suffer from some form of psychiatric morbidity at any point in time (MOH, 1999; Some 2.6 million Malaysians, 2004). Effective treatment is now available for most mental health problems, yet, treatment does not reach more than a fraction of those who need it. Even in developed countries like the USA, Canada, and Australia, approximately two-thirds of the people with mental health disorders do not come forward for treatment, mainly because of the associated social stigma (Ip, 2002). In many ways, developing countries like Singapore and Malaysia are struggling with similar challenges.

2.5 Mental Health Services in Malaysia

The history of mental health service provision in Malaysia can be traced back to the “lunatic asylum” set up in the late 18th century, approximately four decades after the British settled in the island of Penang (Haque, 2001). The asylum, where sailors in the colonial navy who developed mental illness were confined, was a small building on the site of the present Penang hospital. The first psychiatric hospital, later
named Central Mental Hospital, was built in 1911; while the first psychiatric outpatient clinic in a hospital was opened in Ipoh in 1958, followed by the opening of the first psychiatric unit in Penang General Hospital in 1959. Mental patients were being seen and treated in a non-psychiatric hospital, non-institutionalized setting for the very first time. In 1970, the Central Mental Hospital was renamed to minimize the stigma attached to the institution.

Institutional-based care was slowly transited to community-based care in the 1960s. The first Malaysian psychiatrist started practice in 1961, having been trained in the United Kingdom. In 1966, the Faculty of Medicine at University of Malaya opened the Department of Psychological Medicine. The first locally trained psychiatrists graduated in 1975 but the training of other mental health professionals (e.g. psychiatric nurses, clinical psychologists) did not start until 10 years later. Today, public medical schools in the country all have Departments of Psychiatry.

According to Malaysia former health minister, Datuk Seri Dr Chua Soi Lek, there are currently about 145 psychiatrists in Malaysia\(^2\), while the country required another 300 experts (Deva, 2004; Mental illness, 2007). It is estimated that the ratio of number of psychiatrists per 100,000 population to be at 0.6; psychiatric nurses is estimated at the ratio of 0.5 per 100,000 population, and the ratio of the number of psychologists per 100,000 population is 0.05. Although psychiatric care and provision

\(^2\) The exact number of psychiatrists is in dispute with figures ranging from about 43 to 145, according to the Malaysian Psychiatric Association.
has changed substantially, there is still a shortage of psychiatrist and other mental health professionals to cater for the country population.

Based on a review of the literature, mental health services can be categorized into 3 broad categories, namely institution-based, community-based and an integrated, decentralized approach. In the delivery of a comprehensive Community Mental Health Programme, it was proposed by WHO that the integrated approach should be adopted (Deva, 2004). Through the integrated approach, mental health services are incorporated into existing services or programme, e.g. in the outpatient treatment services. This approach not only targets the mentally ill population, mental health promotion is emphasized.

In Malaysia, a national mental health policy was formulated in 1998. The National Mental Health policy provides broad policy guidelines for the delivery of mental health services. The 10 major components of the policy include:

- Accessibility and equity
- Comprehensiveness
- Continuity and integration
- Multisectoral Collaboration
- Community participation
- Human Resource and Training
- Standards and Monitoring
- Research
- Legislation
- Review
The objective of the policy include providing a basis in developing strategies and direction for the planning and implementation towards improving mental health and well being of the entire population, to improve mental health services for population at risks and the mentally disabled, in terms of the care provided by family, community and the relevant agencies.

Mental health care has been integrated into the primary health care system since 1998. In 2003, 85% of the primary health care clinics were providing treatment for people with mental health problems. According to the Ministry of Health (2006), the figure has increased to 763 in 2005, where 88.9% of the health clinics provided community mental health care which included the early detection and management of mental health problems, follow-up treatment and home visiting. Twenty five clinics provided psychosocial rehabilitation services to stable mental patients. In order for more health clinics to involve in mental health care, guidelines and standard operating procedures were developed to facilitate the primary health care service providers to carry out the activities. Regular training is also carried out. Non-Governmental Organizations (NGO) are also involved with mental health in the country. They are mainly involved the promotion, prevention, providing counselling and rehabilitation. Some of these NGOs include the national anti-drug association (PEMADAM) and The ‘Befrienders’, a 24-hour telephone as well as face-to-face counselling service.

It is also important to note that being a multicultural country, Malaysia has a wide variety of traditional healers with a myriad of practices with varying degrees of effectiveness. These healers are broadly classified along ethnic lines; the Malay ‘bomohs’ and ‘dukuns’; The Chinese herbalists, ‘sinsehs’, and faith healers; and the
Indian ayurvedic healers. There is often very little direct cooperation between these different healers and the formal health care providers.

2.6 Mental Health Promotions

Promoting and improving mental health has always been a key mission of the Ministry of Health (MOH). One of the major developments in this area is the launching of the Healthy Lifestyle campaign by the MOH in 1991, in which Promotion of Mental Health 2000 was the fourth theme of the second phase (1997 - 2002) (Haque, 2005). According to Jamaiyah (2000), many types of health education materials were produced and distributed between 1997 and 1998. Some of these materials include posters on 32 various topics of mental health, some 200,000 leaflets covering 13 various topics inclusive of mental health, mental illness, mental health for children, misunderstanding of mental illness, stigma, etc. Much of these materials remained on the website for public reference.

Particularly in year 2000, mental health was selected to be the theme for the annual Healthy Lifestyle Campaign (MOH, 2006). The year-long campaign aimed to improve public awareness on mental health, illness and the treatments available. A wide variety of mental health topics, including signs and symptoms, contributing factors and coping strategies were discussed both in the print and electronic media.

The campaign was targeted for all individuals from different age-groups and socioeconomic status, namely children and adolescents, parents, working adults and the elderly. In 2005, A community outreach programme entitled ‘Healthy Minds
Programme’ (Program Minda Sihat) was developed to provide screening for stress and risk factors for depression and anxiety (MOH, 2006). Other mental health promotion activity, e.g. “Enhanced Healthy Minds” (Pupuk Minda Sihat) was also developed in conjunction with the national launching of the Healthy Lifestyle Campaign in 2005.

2.7 Chapter Summary

Mental health in Malaysia has been slow in developing but has in the past decade progressed substantially. Mental well being is instrumental to quality of life and personal growth. Thus, achieving better mental health is one of the top priorities for the 9th Malaysian Plan (NIH, 2006).
CHAPTER III – PSYCHOLOGY IN MALAYSIA

3.1 Introduction

Compared to other Asian countries, e.g. Bangladesh, India, China, and Taiwan, Malaysia was one of the last few countries to start teaching formal psychology, followed by Singapore (Abdul Rahman, 2005). It is encouraging to note that the climate is changing - the interest in psychology is growing in countries outside of Europe and North America, where psychology has generally gained a higher profile over the past few decades. This chapter will begin by introducing how psychology is seen as a diverse field and a profession in the western counterpart, the remaining sections will summarize the training and acceptance of psychology in Malaysia.

3.2 Psychology as a Diverse Field – Not limited to Mental Health

The field of psychology is somewhat of a mystery to many people. It is not unusual to hear psychologists making comments regarding the suspicious reactions they receive when disclosing their profession to others. In our society, there is a common caricature of the psychologist as someone who can read a person’s mind. A psychologist is able to tell anyone's deepest secrets simply by looking at the way they hold their coffee cup. Even when psychologists deny this supernatural power, individuals who do not understand the profession of psychology tend to shy away, or react cautiously as they believe that psychologists would “analyze” their behaviours and find out what they are really like.
Inevitably, many psychologists do analyze people’s problems, thought, behaviours, and help people cope more effectively with stress and mental disorders. However, according to a survey of American Psychological Association (APA) members holding a doctorate degree in psychology in 2002, approximately 70% of the psychology graduates work primarily in applied field settings (Figure 3.1). In other words, not all psychologists are therapists or counsellors.

In many countries, licensure as a psychologist requires a graduate degree, with additional supervised practical training, in some field of psychology, e.g. clinical psychology. Some of these professional bodies or licensing boards include APA, British Psychological Society (BPS), Canadian Psychological Association (CPA), and Australian Psychological Society (APS), just to name a few. Although psychologist is not yet governed by any specific Act in Malaysia, most university teaching positions require a master’s or a doctorate degree. Special fields of concentration within psychology at graduate level provide individuals with an opportunity to study an area of interest in depth. Table 3.1 will again reflect the enormous diversity of the field of psychology classified by the APA.
Nevertheless, many students walk into the university, telling lecturers and counsellors that they want to study psychology because they love talking to people. Some students claim that they have a “sixth sense”, they want to know more about hypnotism, and they like having patients lying on couches telling them stories. In addition, much research (e.g. Nauta, 2000; Briihl, 2001) has also reported the prevalence of misunderstandings concerning graduate admissions and professional training among psychology students. For instance, students overestimated salaries and job opportunities after graduation, not aware that a psychiatrist holds a medical doctor

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degree, etc. This suggested that students were not being informed of the right path to take to become a qualified psychologist/psychiatrist.

Table 3.1

American Psychological Association Divisions (2001)\(^4\)

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<td>1. Society for General Psychology</td>
<td>30. Society of Psychological Hypnosis</td>
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<tr>
<td>2. Society for the Teaching of Psychology</td>
<td>31. State Psychological Association Affairs</td>
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<tr>
<td>3. Experimental Psychology</td>
<td>32. Humanistic Psychology</td>
</tr>
<tr>
<td>5. Behavioral Neuroscience and Comparative Psychology</td>
<td>34. Population and Environmental Psychology</td>
</tr>
<tr>
<td>6. Developmental psychology</td>
<td>35. Society for the Psychology of Women</td>
</tr>
<tr>
<td>7. Society for Personality and Social Psychology</td>
<td>36. Psychology of Religion</td>
</tr>
<tr>
<td>9. Psychology and the Arts</td>
<td>38. Health Psychology</td>
</tr>
<tr>
<td>10. Society of Clinical Psychology</td>
<td>39. Psychoanalysis</td>
</tr>
<tr>
<td>13. Educational Psychology</td>
<td>42. Psychologists in Independent Practice</td>
</tr>
<tr>
<td>14. School Psychology</td>
<td>43. Family Psychology</td>
</tr>
<tr>
<td>15. Counseling Psychology</td>
<td>44. Society for the Psychological Study of Lesbian, Gay, and Bisexual Issues</td>
</tr>
<tr>
<td>17. Military Psychology</td>
<td>46. Media Psychology</td>
</tr>
<tr>
<td>18. Adult Development and Aging</td>
<td>47. Exercise and Sport Psychology</td>
</tr>
<tr>
<td>20. Rehabilitation Psychology</td>
<td>49. Group Psychology and Group Psychotherapy</td>
</tr>
<tr>
<td>22. Theoretical and Philosophical Psychology</td>
<td>51. Society for the Psychological Study of Men and Masculinity</td>
</tr>
<tr>
<td>23. Behavior Analysis</td>
<td>52. International Psychology</td>
</tr>
<tr>
<td>24. History of Psychology</td>
<td>53. Society of Clinical Child and Adolescent Psychology</td>
</tr>
<tr>
<td>25. Society for Community Research and Action: Division of Community Psychology</td>
<td></td>
</tr>
<tr>
<td>26. Psychopharmacology and Substance Abuse</td>
<td>54. Society of Pediatric Psychology</td>
</tr>
<tr>
<td>27. Psychotherapy</td>
<td>55. American Society for the Advancement of Pharmacotherapy</td>
</tr>
</tbody>
</table>

3.3 Psychology in Malaysian Higher Education Institutions

In most developing countries, higher education institutions seem to be the arena where psychology is introduced formally (Ismail, 1993). Ward (1987) has commented that psychology in Malaysia is still at its infancy stage, having not yet shown much impact, nor played an important role in the society (Ismail, 1993). Although the comment was made over 20 years ago, psychology seems to have a slow start in Malaysia as compared to some other Asian countries, namely China, Hong Kong (China), Japan, and Indonesia.

The first department of psychology in Malaysia was established at the National University of Malaysia (UKM) only in the 1970s. This was followed by the establishment of the Faculty of Human and Social Development at the Universiti Utara Malaysia (UUM), Human Sciences Faculty in the International Islamic University Malaysia (IIUM) in the 1990s, and the School of Psychology and Social Work in University Malaysia Sabah (UMS) in 1997 (Deva, 2004). Over the years, the faculty or the school of psychology in these universities has rapidly developed into well-established faculty or school, offering psychology at both undergraduate and postgraduate levels.

Elements of psychology have also been taught within sociology, education, counselling, medicine, philosophy and mass communication degree courses in other public universities (Ismail, 1993), as well as private universities and colleges. It was not until late 1990s that full psychology undergraduate degrees were offered in private higher educational institutions through the American Degree Program, Twinning, and
Credit Transfer Program. With the growing strong interest shown in psychology, many private universities and colleges now offer psychology as a major at the undergraduate level. Prior to this, individuals who were interested in psychology (who did not go into public universities) would have to pursue the degree abroad. Table 3.2 shows a summary of the chronological development of psychology in Malaysian Public and Private Higher Educational Institutions.

Although postgraduate training in psychology is increasing, they are not widely available in the country. Many psychologists, especially clinical psychologists with a Doctorate in Clinical Psychology are trained outside the country. The current ratio of clinical psychologists to the general population in Malaysia is very low – approximately 1:800,000 (Malaysia lacks clinical psychologist, 2005). One reason is that, not all psychologists become involved in clinical practice, nor in academia. Staffing remains somewhat of a challenge at some universities and colleges to train future psychologists (Deva, 2004). In terms of research, clinical psychology is also not as popular as other areas in psychology. Table 3.3 shows some of the more popular research fields among students’ graduation exercises between 1995 and 2000 in the National University of Malaysia (UKM). Social psychology was the most popular area of research.
Table 3.2

Chronological Development of Psychology in Malaysian Public and Private Higher Educational Institutions

<table>
<thead>
<tr>
<th>Year</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>Universiti Malaya started the teaching of psychology through the Faculty of Medicine, Faculty of Education and Faculty of Arts and Social Sciences.</td>
</tr>
<tr>
<td>1971</td>
<td>First Psychology Department was established in Universiti Kebangsaan Malaysia (UKM). Upgraded to Centre of Psychological Studies and Human Development in 2002.</td>
</tr>
<tr>
<td>1990s</td>
<td>The establishment of the Faculty of Human &amp; Social Development in Universiti Utara Malaysia (UUM)</td>
</tr>
<tr>
<td></td>
<td>The establishment of the Department of Human Sciences in Malaysia International Islamic University (IIUM)</td>
</tr>
<tr>
<td></td>
<td>The establishment of the first Clinical Psychology Programme in Universiti Kebangsaan Malaysia (UKM)</td>
</tr>
<tr>
<td></td>
<td>The establishment of the School of Psychology and Social Work in University Malaysia Sabah</td>
</tr>
<tr>
<td></td>
<td>Private higher educational institutions offer psychology at Diploma and Undergraduate level, through American Degree Program, Twinning Program and Credit Transfer Program.</td>
</tr>
<tr>
<td>Early 2000s</td>
<td>Private higher educational institutions offer locally accredited psychology programs at Undergraduate level.</td>
</tr>
<tr>
<td></td>
<td>Private higher educational institutions and branch universities from abroad offer psychology at the Postgraduate level.</td>
</tr>
</tbody>
</table>
Table 3.3

Popular Research Fields among Psychology Students’ between 1995 and 2000

<table>
<thead>
<tr>
<th>Field</th>
<th>Year</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial &amp; organizational</td>
<td>5</td>
<td>12</td>
<td>15</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>54</td>
</tr>
<tr>
<td>Counseling</td>
<td>5</td>
<td>7</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td>Cognition &amp; perception</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>Personality</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>36</td>
</tr>
<tr>
<td>Developmental</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Social</td>
<td>23</td>
<td>34</td>
<td>52</td>
<td>4</td>
<td>7</td>
<td>17</td>
<td>137</td>
</tr>
<tr>
<td>Test &amp; measurement</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Number shown refers to number of students who have selected the specified area of research in psychology as their graduation exercises in a respective year.

3.4 Psychologists in Malaysia/ Psychology as a Profession in Malaysia

One other issue that often arises is that there is no one professional body/registration board for psychologists in Malaysia. For this reason, there is no rule or act governing who shall call oneself a psychologist. In many countries, psychologists must be legally registered in order to work in hospitals, prisons, mental health institutions, in the same way medical practitioners, solicitors and engineers must register to practice. In the United Kingdom, a registered psychologist is given the title of Chartered Psychologist; whereas in Canada, a registered psychologist is known as a Licensed Psychologist.

Being a member of a professional body is not the same as being registered, i.e. a member of BPS may not be a Chartered Psychologist. In Canada for example, The College of Psychologists Act (1981) allows the use of the title "psychologist" only to those who are licensed to practice under the conditions of the Act (Guidelines for licensing, 2008). The majority of these professional bodies are involved in the promotion as well as the regulation of the professional practice of psychology in the country (e.g. Australian Psychological Society), however not all are involved in registration or licensing (e.g. APA, CPA). Each professional body/ licensing board determines the requirement of registration. These requirements differ slightly, but most require the completion of an undergraduate degree in psychology plus several years of either postgraduate training in psychology or supervised workplace experience as well as passing a licensing examination.

Psychology has not achieved this professional status in Malaysia. Psychologists are often confused with counsellors whom are better known and recognized as a profession in this country, when the government endorsed the Counsellors’ Act (Act 580) in 1998 (Abdul Rahman, 2005). An accreditation body, Malaysian Counsellors Advisory Council or Lembaga Kaunselfor was established to act as the registrar for the licensure and certification of new counsellors (Salim & Mohd Jaladin, 2005), outlining the standards, code of ethics and membership requirements for each new member. At present, the Malaysian Psychological Association (PSIMA), established in 1988, is believed to be the only platform for discussion of research in psychology. PSIMA plays an important role in organizing conferences, seminars, and workshops, and in discussions of the status and progress
of psychology in the country. However, PSIMA is not involved in licensure and certification. Registration to PSIMA is not compulsory for all psychologists.

In order for psychology to be recognized as a profession in Malaysia, a professional association overseeing the practice of psychology and licensing of qualified psychologists in the country is greatly needed. This is extremely important in terms of accreditation purposes, for monitoring the many training programs offered by both private and public educational institutions. This will certainly benefit the society, as currently, there are cases where unlicensed “psychologists” are practicing psychology at large (Abdul Rahman, 2005). With all these in place, general public will have better awareness and know where, and from whom to seek help.

3.5 Chapter Summary

Psychology in Malaysia has had a slow start. Although elements of psychology have been taught within other subjects in tertiary education, formal training in psychology began only in 1970s, while postgraduate training in psychology is still limited in the country.

At present, psychology graduates (overseas or locally trained) are mainly involved in clinical services, employed as academic staff members in universities/colleges, or engaged in private organizations as trainers, consultants, or within human resources divisions. The establishment of a regulatory body for all practicing and academic psychologists is crucial to monitor psychologists’ activities and promote psychology.
There is still much to be done to improve the status of psychology in Malaysia. This goal requires enhancing awareness in both public and professional communities about psychology and its many potential contributions to the society.
CHAPTER IV – LITERATURE REVIEW OF STUDIES ON PUBLIC BELIEFS
ABOUT AND ATTITUDE TOWARDS MENTAL HEALTH ISSUES

4.1 Introduction

The attitude of the public towards mental health issues is recognized as an important factor in the perpetuation of the stigma experienced by people with mental health problems (Jorm, Barney, Christensen, Hight, Kelly, & Kitchener, 2006; Hocking, 2003). Research has indicated that those with a better understanding of mental illness are less likely to hold stigmatizing attitudes (Bender, 2006; Corrigan and Penn, 1999; Brockington, Hall, Levings & Murphy, 1993). This literature review of the studies on knowledge and attitudes towards mental health issues is needed to explore the development and change of these attitudes and furthermore, to identify the factors affecting said attitudes. This literature review explores community mental health literacy and attitude surveys from various countries. Factors identified in the literature review as relevant to the present study are also discussed.

4.2 Public Beliefs about Mental Health

Mental health literacy, a term which was first introduced in Australia, has been defined as “knowledge and beliefs about mental disorders which aid their recognition, management or prevention” (Jorm, Korten, Jacomb, Christensen & Henderson, 1997). It is thought to consist of several components:
• The ability to recognize specific disorders or different types of psychological distress;
• Knowledge and beliefs about risk factors and causes;
• Knowledge and beliefs about self-help interventions;
• Knowledge and beliefs about professional help available;
• Attitudes which facilitate recognition and appropriate help-seeking;
• Knowledge of how to seek mental health information.

The concept of mental health literacy implies that it is crucial to increase the public’s knowledge about mental health and mental illnesses since it is a prerequisite for early recognition and intervention in mental disorders. Mental health literacy represents a relatively new area of investigation. Studies on beliefs about mental health issues take an interest in the question of the extent to which mental health problems are recognized, what beliefs about the causes, treatment and facilities are available, what attitudes towards mentally ill people are prevalent, and how are these beliefs and attitudes relate to people’s socio-demographic characteristics.

Recent studies have shown that mental health literacy is low, regardless of the population considered. Although people manage to distinguish abnormal from normal behaviour at a relatively satisfactory level, the recognition of a specific diagnosis/mental illness is poor.

For example, in 2005, a review article covering the time period between 1990 and 2004 was published by Angermeyer and Dietrich (2005) on public beliefs about and attitudes towards people with mental illness. Among the 62 articles reviewed, 33
were national surveys conducted in 14 different countries including countries in Europe, America, Asia, Africa and Oceania. The majority of the surveys were based on random samples of the general population, with personal interviews being the most common technique, followed by telephone interviews and mails (Angermeyer & Dietrich, 2005).

Many of the studies involved the presentation of a vignette that described a person with either symptoms of a major mental illness, e.g., depression or schizophrenia, using ICD-10 or DSM-IV diagnostic criteria. Following the presentation of the vignette, respondents would be asked a series of questions, e.g., “What, if anything, is wrong with the person?” And “What is the likelihood that the person is being discriminated against?”

The findings of the review suggested that laypeople generally have a poor understanding of mental illness. Few respondents were able to correctly label the mental illness presented in the vignette. One study involved a house survey was carried out by the Australian Bureau of Statistics in 1995 with a representative sample of the Australian population (N=2031) aged between 18 and 74 (Jorm et al., 1997). Personal interviews were conducted where a vignette of a person suffering from either depression or schizophrenia was presented to the respondents. Respondents were asked what was wrong with the person described in the vignette and how they could be helped. Jorm et al. (1997) found that a substantial part of the public could neither correctly recognize specific mental disorders nor the underlying causal factors. Depression was correctly labelled by only 39% and Schizophrenia by 27%. With regards to how the person (with depression) in the vignette could be helped, general
practitioners and counsellors were most often rated as helpful, followed by psychiatrists and psychologists.

In addition to studies attempting to gauge the ability of the public to recognize and correctly label mental disorders presented in the form of vignettes, many other studies involves interviewing participants using semi-structured questionnaires (e.g. Wolff, Pathare, Craig & Jeff 1996; Kabir et al., 2004). For example, Wolff et al. (1996) conducted a survey on community knowledge of mental illness by interviewing 215 respondents. Respondents were asked to distinguish between a mental illness and a mental handicap and provide opinions if the individuals who suffer from mental was any less intelligent. Following that, respondents were asked if they could name any types of mental illness, cause (whether it is hereditary), signs and symptoms of mental illness, resources for assistance, and personal experience with individuals with mental health problems.

It is believed that personal interviews generally provide qualitative results which can be very useful in understanding a community’s mental health literacy. However, such personal interviews often required highly trained interviewers, and the process is often time consuming. Alternatively, various studies have also transformed the questions into a mental health quiz in true (agree)/false (don’t agree) format to measure common misconceptions about mental health problems/ mental health myths (e.g. Taskin, Sen, Aydemir, Demet, Ozmen & Icelli, 2003). Participants are requested to answer “true” or “false” to statements in relation to commonly held beliefs about mental health issues. Some of the common statements include: “Mental health is defined as the absence of mental illness”; “People with severe mental illness are
dangerous and violent”; and so on. This process is thought to be less time consuming, however, chances of respondents guessing the right answer is much higher.

4.3 Perceptions/Attitudes towards Mental Health Problems

In recent years, there has been a growing awareness among mental health professionals that mental illness is still surrounded by negative attitudes. Negative attitudes and discriminating behaviours towards people with mental illnesses are often referred to as stigma. Stigma involves negative stereotypes and prejudice and is often measured in terms of social distance (the willingness to interact socially), and shown through social rejection and discrimination.

Stigma is often measured by presenting respondents with statements in relation to reactions to individuals with mental health problems. Respondents are asked to rate each statement using a 4- or 5-point Likert scale, ranging from strongly agree to strongly disagree. Statements in a stigma scale often include items on social distance – the tendency to stay away from people with mental health problems and social inclusion – the tendency to accept people with mental health problems. Items in relation to fear, tolerance, violence may also be included.

Stigma because of mental illness is widespread (Jorm, 2000). It stemmed, in part, from the 19th century separation of the mental health treatment system in the United States from the mainstream of health. People with mental illness were described as “lunatics”. Bhurga (1989) has suggested that stigma has been attached to mental illness for as long as the illness itself has existed. In the past, mentally ill
patients were kept in asylums or mental hospitals due to the fact that the cause of the illness was largely unknown and the potential threat that mentally ill individuals may pose for the public. However, over the last few decades, despite the new advancement in medical technologies, stigma has not decreased significantly (U.S. Department of Health and Human Services, 1999) due to deinstitutionalization and the emphasis on community care.

Stigmatization of people with mental health problems has persisted throughout history. It is manifested by bias, distrust, stereotyping, fear, embarrassment, anger, and avoidance. Stigma can cause profound impairment to the mentally ill. The feelings of shame and embarrassment that accompany this population are indescribable. Many are constantly discriminated against and held responsible for the development of their illness. It is very important for this population to understand that they did not cause their suffering, and that there are people willing to support them through this difficult time. In addition, stigma leads others to avoid living, socializing or working with, or employing people with mental health problems (Ganguli, 2000). This is of concern for a number of reasons. It reduces a person’s access to resources and leads to low self-esteem, isolation, and hopelessness. It delays the public from seeking professional help and deprives people of participation in the life of the community.

People who do disclose or who are identified as mentally ill have reported that discrimination and social exclusion is a common experience. Stigma and discrimination in the workplace frequently occurs (Stuart, 2005; Gaeber et al., 2002); people may also limit their social interactions with others for fear of experiencing
stigma (Gaeber et al., 2002). The public who viewed mental illness as a stigmatized condition often displayed an unscientific understanding of mental illness. The public was not particularly skilled at distinguishing mental illness from ordinary unhappiness and worry and tended to see only extreme forms of behaviour – namely – psychosis – as mental illness.

How has the situation changed? In 2002, as part of the early work of the National Programme for Improving the Mental Health and Well Being of the Scottish population, a survey was commissioned to assess people’s understanding of mental health, and attitudes towards mental health problems and people who suffer from them. A 10-item stigma scale was devised to assess the way in which people responded to statements about non-specific mental health problems. Results indicated half of the people in the sample (N=1381) agreed (at least to some extent) that they would not want people to know if they had a mental health problem, while a third of the respondents thought that people with mental health problems were often dangerous (Glendinning, Buchanan, & Rose, 2002). Respondents with no prior experience/ exposure to people with mental health problems had a significantly higher mean score than those who had such exposure. Undeniably, stigma around mental health problems still prevailed among the general public.

Why is stigma so strong despite better public understanding of mental illness? The answer appears to be fear of violence: people with mental illness, especially those with psychosis, are perceived to be more violent (Phelan, Link, Stueve, & Pescosolido, 1997). People in the general public harbour this fear despite the fact that a large amount of carefully collected research data indicates a weak link between
mental illness (even serious psychotic illnesses like schizophrenia) and violent behaviour (Ganguli, 2000). There is also very little risk of violence or harm to a stranger from casual contact with an individual who has a mental disorder.

4.4 The Importance of Attitude in Help-Seeking for Mental Health Problems

Mental illness continues to incur negative attitudes, often characterized by fear, stigma and rejection. Such attitudes have been identified as contributing to a reluctance to seek help. In 2002, a cross-sectional survey was conducted in Australia using self-report questionnaires, assessing current symptomatology, disability, attitudes toward mental illness, knowledge of prevalence and causes of mental illness, contact with mental illness, help-seeking behaviour and preferences and attitudes toward seeking professional psychological help (Wrigley, Jackson, Judd, & Komiti, 2005). Results showed that a significant proportion of the sample indicated that they had experience with mental health problems. More than one third (3%) of the respondents indicated that they themselves had previously sought professional help, and more than half the sample knew someone who had mental health problems.

Sex is one of the strongest predictors of attitudes toward help-seeking for mental health issues, with women seeking help more frequently than men (44.6% vs. 20%, $p < 0.05$). Almost half the respondents indicated they had at some time wanted to, or felt that they needed to seek help from mental health professionals but had not done so. The most frequently cited reason for not seeking professional help was embarrassment, followed by not knowing who to seek help from (Wrigley et al., 2005).
Wrigley et al. (2005) found that higher perceived stigma was associated with more negative attitudes toward seeking help ($r = 0.21, p < 0.05$), which was consistent with previous studies (e.g. Kushner & Sher, 1991). However, these findings seem to apply to individuals across the society spectrum. Physicians, for example, often deny their own mental health needs and hide their conditions to protect their careers (Gray, 2002). In a study exploring the attitudes of medical students toward help-seeking for mental health problems, Chew-Graham, Rogers, and Yassin (2003) revealed that concerns about confidentiality, stigma, notation on academic record, and forced treatment were among the top barriers to mental health care for those in the medical community. Respondents preferred to seek help and support from their family and friends rather than use any of the available professional services, as many experienced feelings of shame and embarrassment. Students did not feel comfortable confiding to tutors who would also be assessing their performance, or seeking help from mental health professionals who could possibly be their future supervisors. Respondents were also concerned that admitting to problems would affect their future career as a doctor (Chew-Graham et al., 2003).

In summary, many studies has identified stigma as one of the biggest obstacles preventing people with mental health problems from achieving the best quality of life possible for them. While overcoming stigma campaigns are launched to create awareness, unfortunately, all of these efforts suffer from a setback when there is a media story which, rather than highlighting the rarity of violence by mentally ill people, suggests that the connection is common.
4.5 Media and Mental Illness

The media may bear some responsibility for the reported increase in public misconceptions of mental illness. Although the relationship between the media and personal attitudes and beliefs is complex, research shows that media depictions of mentally ill people as violent homicidal characters has a marked influence on public attitudes, and contributes to stereotyping. “Television research George Gerbner (1985) reported that 1 in 5 prime-time and daytime programs (in United States) depicts a psychologically disorder person, and 7 in 10 of such programs portray this character as violent or criminal”, (Myers, 2001, p.536). Furthermore, mental disorder has been a commonly depicted disability in feature films. Among the more popular ones are *Psycho, Silence of the Lambs, Hannibal, Friday the 13th*, and the *Nightmare of Elm Street, A beautiful mind, Girl interrupted*, just to name a few.

Media clearly does exercise some amount of influence on the public’s views in general. In one study, two thirds of the respondents who cited media as the primary source of their beliefs about mental illness associated mental illness with violence (Clarke, 2004). According to Mental Health Literacy Canada (2007), 66% of the Canadian surveyed agreed completely or almost completely with the statement that people with mental health problems are often inaccurately portrayed in the media. Similar findings were reported in the Scottish population, where respondents were asked how they thought the media portrayed people with mental health problems, 44% of the respondents felt that individuals with mental health problems tended to be shown in a negative light. In addition, 23% of the 1381 respondents cited media as the primary source for information in relation to mental health. These respondents who
primarily received information from the media also believed that people with mental health conditions are dangerous and think the public should be better protected from those with mental health problems (Glendinning et al., 2002).

To further illustrate the effect of the negative portrayal of mental illness in the media, Thornton and Wahl (1996) found that subjects exposed to an article portraying a mental patient as a violent criminal demonstrated attitudes significantly more negative towards the mentally ill than did control subjects. Domino (1983) administered attitude questionnaires to subjects prior to the release of the film, One flew over the Cuckoo's Nest. After the film was released the questionnaire was readministered. Attitudes toward mental illness changed substantially in a negative direction for subjects who viewed the film. In conclusion, the fact that media is so pervasive, it has a responsibility to report accurately and fairly, correcting misconceptions when necessary.

4.6 Urban vs. Rural Population

Attitudes may have moderated somewhat in recent years, especially in places where public information campaigns to improve mental health literacy have been implemented. Meanwhile, concern about stigma appears to be heightened in rural areas in relation to larger towns or cities with Fuller, Edwards, Procter and Moss (2000) arguing that the stoic and self-reliant attitudes found in rural Australian residents make it difficult for people to acknowledge that they are experiencing problems and or distress. Various research studies from the North America have also
indicated that rural residents display less reliance on professional health services and more on family and friends than urban residents (Bourget & Chenier, 2007).

A study conducted by Wrigley et al. (2005), sought to understand how mental health is defined in rural and remote communities. Semi-structured interviews were undertaken with a range of informants knowledgeable in the area of mental health who provided services in rural and remote areas of South Australia. Mental health providers felt that people living within the rural areas generally equate mental health problems with severe psychiatric disability or insanity. Such conceptualization may result in a reluctance to acknowledge mental health problems and/or an inability to conceive their own problems as mental health problems. This is likely to have direct bearing on help-seeking, as in order for people to seek help, they must first identify themselves as requiring help.

The first mental health literacy research on rural population was believed to be Bartlett, Travers, Cartwright and Smith (2006), who have conducted a community Mental Health Literacy community survey in rural Queensland to assess the awareness of, and attitudes to, mental health issues prior to the implementation of Australian Integrated Mental Health Initiative – a health promotion strategy aimed at improving the health outcomes of people with chronic or recurring mental disorders. A random sample of 2% (2132) of the estimated adult population in each of eight towns in rural Queensland was sent a postal survey and invited to participate in the survey.

The survey was based on a vignette describing a person suffering from major depression which has previously been used in similar surveys. Respondents were
asked a series of questions in relation to the vignette. When asked to label the mental health problem, the majority of the respondents (81%) were able to correctly identify and label it as depression. Approximately 65% of the respondents believed that the person suffering from depression described is likely to be discriminated against by others in the community. However, when respondents were asked about the awareness of mental health services and the quality of such services, 37% of the respondents were unaware of agencies in their community to assist people with mental health issues and a majority of respondents (57.6%) considered the services offered were either marginal or poor (Bartlett et al., 2006).

Although the response rate for this survey was rather low (36%), it was believed to be the first survey to explore the views of rural residents regarding mental health issues in Australia (Bartlett et al., 2006). Bartlett et al. (2006) concluded that although mental health literacy in rural Queensland appeared to be comparable to other Australian regions, several gaps in knowledge were identified, among which, approximately 34% of the respondents underestimated the prevalence of mental health problems in the community. This is in line with Taskin et al. (2003) who studied public attitudes to schizophrenia in rural Turkey. Taskin et al. (2003) concluded that people in rural areas sufficiently recognized schizophrenia, but had a tendency to stigmatize them. Respondents generally demonstrated negative attitudes and high social rejection.
4.7 Culture

Culture may be defined as a set of beliefs, norms and values that shape a society and human interactions. Cultural factors shape the collective representation that people bring to interpret and construct the meaning of any situation, thus affecting their attitude towards it. Hence, culture is of particular interest with regard to mental health literacy because there are significant cultural variations in how people recognize, explain, experience and relate to mental disorders and treatment.

Speller (2005) reported that Asian Americans frequently experience and express mental illness very differently from Westerners, often emphasizing somatic rather than psychological symptoms. It is believed that cultural barriers frequently deter Asian Americans from seeking psychological help. This is because Asian values are centered on the concept of interdependence in a collectivistic society. As a result, Asian cultures emphasize concepts such as emotional self-control, humility, filial piety (love and respect to one’s parents and ancestors), family recognition through achievement, and the integration of the mind and body. The mind and body are not regarded as two distinct entities. As a result, mental and physical illnesses are not clearly separated, therefore, often expressed in physical terms. Speller (2005) also suggested that one of the greatest cultural barriers to treatment results from the low social acceptability of mental disorders in Asian cultures. Asian Americans frequently view mental illness as highly stigmatizing and thus are less likely to recognize, acknowledge, or seek help for mental health problems. It is not uncommon for an individual who is experiencing a decreased level of functioning to express feelings of shame and personal failure. He or she might be apprehensive to seek help outside of
the family for fear of disgracing the family name, but also be reluctant to discuss mental health issues with family members, for fear of being burdensome.

In a study conducted with 561 Malays, Chinese and Kadazan-Dusun participants, Swami, Furnham, Kannan, and Sinniah (2008) found that Malaysians tended to favour social-environmental explanations for schizophrenia, specifically, Malay participants strongly agreed that schizophrenia has a social cause, that treatment should affect changes at a societal level. They also believed that schizophrenic behaviour is sinful.

Non-Western, traditional cultures are more likely to attribute mental disorders to supernatural causes (Mubarak, 2005; Sheikh & Furnham, 2000). Belief in demons as the cause of mental health problems is a well-known phenomenon in many cultures. In a study conducted among adults of a village in Northern Nigeria, approximately 18% of the 250 respondents believed that mental illness was caused by magic/spirit possessions.

Attitude towards help seeking may also be influenced by culture. Beliefs about causes of mental illness may affect patterns of help-seeking (Lee & Bishop, 2001) and response to treatment (Lim & Bishop, 2000). Lee and Bishop (2001) who examined Singaporean Chinese beliefs about the aetiology and treatment of psychological problems found that clients (individuals receiving counselling) and non-clients (individuals not receiving counselling) belief models showed a positive correlation between aetiology and treatment. For example, individuals who endorsed the indigenous belief model were also more likely to endorse indigenous therapies, i.e.
Chinese medicine. Similarly, psychiatric patients in Malaysia who believed in supernatural causes were also more likely to seek help from traditional healers (Razali et al., 1996). In Western countries, people who adhere to traditional causal beliefs have less positive attitudes about seeking professional help (Bourget & Chenier, 2007).

**Other Socio-Demographic Characteristics: Sex, Age, Education Level, Prior Exposure/Contact**

It is not clear what influences the ability to correctly recognize and labelled mental health problems and attitude towards help-seeking. Findings from previous studies are mixed.

According to Angermeyer and Dietrich (2006), in majority of cases where the influence of sex on attitudes was examined, no association between the two was observed, although there are cases where men expressed more negative attitudes than women. However, women demonstrated a greater social distance than men when the intimacy of the relationship increased (e.g. Gaebel et al., 2002).

In a study in Germany, 7246 adult (above 16 years of age) responded to a six-item stigma scale on a four-point Likert scale. A chi-square-test for sex was computed item-wise. Women displayed more rejection when they were asked whether they would marry, or have conversations with someone with mental health problems. Both items were statistically significant at $p<0.01$ level. When asked whether they would
accept a group home for schizophrenia patients in their neighbourhood, more women than men would be worried and feel disturbed ($p<0.001$) (Gaebel et al., 2002).

Many studies reported that negative attitudes were positively associated with age, Angermeyer and Dietrich (2006) reviewed 32 cases yielding such findings, and Gaebel et al. (2002) who studied public attitudes towards people with mental illness in six German cities also reported that more older than younger people associate people with schizophrenia with negative characteristics and behaviour, e.g. they are dangerous to the public, displaying odd behaviours, and tend to be mentally retarded.

Turning to the effects of education, Angermeyer and Dietrich (2006) summarized the findings of 20 studies reporting a positive relationship between educational level and attitudes. Persons with a higher educational level tended to distance themselves less from individuals with mental health problems. For example, Kabir et al. (2004) found that educational status was significantly associated with the type of feeling exhibited by the participants. Among 250 Nigerian respondents, educated respondents were seven times more likely to exhibit positive feelings towards individuals with mental health problems as compared to non-educated participants ($p<0.05$). With regards to the beliefs about mental health problems in Singapore, Lee and Bishop (2001) also found that individuals with lower academic background (i.e. secondary or lower) were more likely than those holding post-secondary qualifications to endorse the indigenous aetiology.

Personal experience and prior exposure to mentally ill individuals may also affect a person attitude towards mental health issues. Approximately half of the 62
studies reviewed by Angermeyer and Dietrich (2006) demonstrated that having personally experienced a mental illness or having personal contact with individuals with mental health problems resulted in more positive attitudes towards people with mental illness.

With regards to help-seeking behaviour, Oliver, Pearson, Coe and Gunnell (2005) conducted a survey on help-seeking behaviour in men and women with common mental health problems in Bristol, England. A total of 10302 respondents completed a questionnaire on attitudes to seeking help for mental health problems. Participants were requested to respond to two questions on help-seeking attitudes and behaviour. The first question was in relation to their concerns about stress in life and experience in help seeking, while the second question was in relation to their preferred sources of help. Results showed that nearly a quarter of the respondents said that they would not seek help. Men were less likely than women to say that they would seek help \( (p<0.001) \). Among those who would seek help, the lay support system (friends and family) was the preferred source of help. Women with common mental disorders were more likely to have sought some form of help when compared to men. Elder respondents (aged 55 – 64) were three times more likely to consult professional help than those aged 16 – 24. Young people were more likely to have sought assistance from friends and family. The findings were consistent with Mojtabai, Olfson, and Mechanic (2002) who found higher rates of perceived need to seek professional help among women. Similar findings were reported in Wrigley et al. (2005), who found that women were more likely to seek help and discuss a mental health issue with General Practitioner as compared to men \( (44.6\% \text{ vs. } 20\%; p=0.05) \).
To sum up, people of younger age, women, and those with higher education level more likely to perceive mental health professionals as helpful and demonstrated tendencies to seek help (Angermeyer & Matschinger, 1999). The lay support system is the more preferred source of help, especially for minor mental health problems.

4.8 Chapter Summary

To date, research on public knowledge and attitudes toward mental health has mainly been descriptive in nature, however, published work supports a range of psychological variables as being important in help-seeking for mental health problems, such as mental health literacy, negative attitude (stigma), prior exposure/contact, exposure to media, population distribution (rural vs. urban), culture and other demographic characteristics.

Much of the literature suggests that laypeople generally have a poor understanding of mental health problems. They are either not able to correctly identify the mental disorders and the underlying causal factors, or possess incorrect beliefs about the effectiveness of treatment interventions. In addition, they are reluctant to seek help.

Attitudes towards mental health issues often involve negative stereotypes or stigma, which often influence help-seeking behaviour or cause failure to adhere to treatment. Such stigma is associated with fears of unpredictability and dangerousness. The mass media may bear some responsibility in promoting such stereotypes.
There are significant cultural variations in how people recognize, explain, experience and relate to mental illness and treatments although the explanatory power of socio-demographic characteristics in some studies were poor. However, prior experience of an illness may be a strong predictor to being able to correctly label a mental health problem. In addition, there is also a positive association between familiarity with mental illness and the acceptance of people with mental disorders. Age, sex, and education level are often related to help-seeking behaviour.

Recognition and awareness have improved somewhat in a few countries (e.g. Australia, United States, Canada) following the implementation of various initiatives to improve mental health literacy among general public, however, researchers believe there is still room for improvement.

*From Mental Health to Psychology*

Public knowledge and attitude towards mental health has spawned quite a bit of research since the term “mental health literacy” was introduced in 1997. Research findings from many countries of different regions have unequivocally demonstrated the general public possessed relatively low mental health literacy. Stigma remains strongly attached to individuals with mental health problems, and what is more distressing is that stigmatization has also extended to the mental health profession to some extent (Persaud, 2000). This has also indirectly affected medical students’ decision in entering the psychiatry field (Cutler, Alspector, Harding, Wright & Graham, 2006; Brockington & Mumford, 2002; Feifel, Moutier & Swerdlow, 1999)
resulting in drastic psychiatrist shortage (Emsley, 2001; Mohit, 2001) in many countries.

Laypeople generally have very little knowledge about what psychiatrists do and the type of help they can provide. In addition, people often get confused about the difference between psychiatrists and psychologists. Although psychologists generally do not possess prescriptive privileges, clinically trained psychologists are capable in providing psychotherapy, administer and interpret psychological assessment and testing. A wide range of psychological difficulties may be dealt with, including anxiety, depression, relationship problems, learning disabilities, child and family problems, and serious mental illness. Hence, clinically trained psychologists could serve as an additional resource for mental health care.

Nevertheless, psychologists are not immune from misconceptions and stigmatization. Much of these issues are discussed in Chapter 5. Studies in relation to psychology’s public image and ways in which psychologists measure and promote public understanding of psychology will be discussed.
5.1 Introduction

For more than 100 years, public perceptions of mental health as well as the field of psychology have been somewhat distorted (Benjamin, 1986). Psychologists, counsellors, and other mental health professionals have been curious about how the public has viewed them. Such curiosity has soon become a concern to most mental health professionals. Psychologists in particular, are increasingly aware of their public image problem and have been examining sources for the incongruence between public conceptions and reality (Wood, Jones & Benjamin, 1986).

Psychologists have been studying their public image through periodic surveys since the 1940s (Benjamin, 1986). A number of surveys have suggested that the public does not have a clear idea of what it is psychologists/psychiatrists do, and that the public does not view the discipline of psychology favourably (Benjamin, 1986). As such, another question that often arises relates to how much is the public actually exposed to psychologists and other mental health professionals, and accurate psychological contents, including the role of psychologists and mental health issues.

In this chapter, much of these studies will be examined. The literature review is divided into two sections. The first section reviews studies related to psychology’s public image, misconceptions about psychology and ways in which psychologists measure misconceptions about psychology. The second section investigated the
attempts to dispel misconceptions about psychology and promote public understanding.

5.2 Psychology’s Public Image

The field of psychology struggles with the public’s misconceptions, which tend to create a distorted public image of the discipline. These misconceptions infiltrate the field, resulting in difficulty knowing what to expect when individuals seek psychological assistance. Psychologists, counsellors, and other mental health providers are increasingly aware of psychology’s image problem, and have been examining sources for the incongruence between public perceptions and reality for well over half a century (Garrett & Fisher, 1926; Wood et al., 1986).

Psychology’s public image is regarded as a two-dimensional issue: popularity and understanding (Benjamin, 1986). Popularity is often defined as how the public feels toward psychology and psychologists; understanding is regarded as what the public knows about psychology and what psychologists do. Psychology’s image problem has been a long-standing issue. A poor or inaccurate image not only affects the wellbeing of psychology and psychologists, but also impact upon the profession’s capacity to serve and assist people with mental illness who need help.

Unfortunately, few decades of research, in various countries, e.g. United States of America (e.g. Wood et al., 1986; Benjamin, 1986; Janda et al., 1998), Spain (e.g. Diaz, 1995), Hong Kong (e.g. Wai, 2002), Australia (e.g. Hartwig & Delin, 2003), all have suggested that psychology falls short in either or both dimensions of
public image. In terms of public understanding, survey findings have indicated that the general public is largely uninformed about psychologists’ roles and competencies. With regards to popularity, the recurrence of specific attitudes towards the profession in surveys has implied that the public generally holds less favourable perceptions, feel reluctant to seek help from mental health professionals, or tend to perceive psychologists as less helpful than other health professionals (e.g. General practitioners/medical doctors).

5.3 Psychology: Common Sense vs. Science

The empirical rigor in psychological research and practice has often been questioned by those involved in hard sciences – the more historic, concrete sciences. One of the most popular attacks on psychology as science by lay people is that it is simply “common sense” (Furnham, Callahan & Rawles, 2003). Since the 1920s, several surveys were conducted with college students, investigating the prevalence of misconceptions regarding psychology and allied fields among high school and college students. Among the studies, Garrett & Fisher (1926) investigated the prevalence of belief in superstitions in a group of high school students from two high schools in New York City using a true-false questionnaire of 40 items (none supported by scientific fact). Some of the items included “The number of man’s senses are five”, “Women are inferior to men in intelligence” and “It is unlucky to have anything to do with the number 13”. The questionnaires were administered to a group of 219 male and 140 female students in the beginning of a psychology course. Garrett & Fisher (1926) found that all participants believed at least 10 items out of the 40 items to be true.
In 1948, Guest presented the first published survey on the public’s perceptions as to who among different professionals should be referred to as scientists (Wood et al., 1986). Among those studied were doctors, engineers, chemists, psychiatrists and psychologists. Fifty-five percent of respondents regarded psychologists as scientists, which was much lower than the other occupations to which psychologists were compared (Wood et al., 1986). The image of psychology as a valuable science became more apparent in a study by Nunnally and Kittross (1958). They found that individuals working in physical health care (e.g. doctors, nurses) tended to be perceived as more important and more valuable than those working in mental health fields. Interestingly, however psychologists were ranked slightly higher than psychiatrists. Nunnally and Kittross’s (1958) study was replicated by McGuire and Borow (1979). Once again, results shown that medically related occupations were evaluated most favourably, followed by psychologists and then psychiatrists.

A similar survey was conducted by Janda et al. (1998) to examine how the general population and college faculty members view psychology relative to other hard sciences (e.g. biology, physics, medicine, etc.) and soft sciences (e.g. sociology, economics). One goal of the survey was to study how psychology was perceived relative to other disciplines, and to determine if professionals view psychology more favourably than does the general public. A randomly generated sample of 141 participants was given questionnaires that consisted of three questions. The first question required the participants to rate, on a seven-point scale (1 = extremely unimportant and 7 = extremely important), the importance of seven fields of study – biology, chemistry, physics, medicine, psychology, sociology and economics. The second question required the participants to compare, on a seven-point scale (1 = no
difference and 7 = very great difference), the difference between how much an expert in the respective field and how much an average person knows about the field. The last question required the participants to indicate the most important contribution of each discipline to society.

The results were consistent to previously published studies (e.g. Benjamin, 1986, Guest, 1948). Both the general public and college faculty members rated psychology lower in importance than the hard science disciplines. Both groups also perceived that psychologists did not know a great deal more about psychology than the average person, and both the general public and college faculty appeared to associate psychology with issues of mental illness and psychological treatment. Although these studies are relatively old, it has implications for the way in which psychologists may be viewed today by the public.

Clearly, psychology and common sense are not unrelated. This lay belief is sometimes known as Folk Psychology - the everyday understanding of psychological phenomena. Folk psychology generally covers everything that psychologists are interested in – it is also the common sense framework people use to explain, predict, and control human behaviour and experience.

Interestingly, psychology as common sense is not a charge that is found only in the general public. One of the criticisms made by students in their first encounters with psychology is that – “they knew it all along” (Myers, 2005). The charge is usually refuted by textbook authors by explaining that such judgment represents a hindsight bias – the tendency to retrospectively inflate one’s confidence in knowing or
believing in something after one has obtained confirmatory evidence. Years ago, in *The concept of motivation*, Peters (1960) explained that the difficulty about developing a science of psychology is that, in a sense, we already know too much about human behaviour (Fletcher, 1995).

Work in the area of common sense has been done empirically, mostly via the use of questionnaires establishing 1) what it is people do and do not know about psychology, 2) what non psychologists think about psychology and the sources of misconceptions; and 3) individuals’ knowledge of psychology before they have been taught an introductory course, in order to evaluate the effectiveness of introductory psychology courses.

### 5.4 Misconceptions about Psychology Among University/College Students

Misconceptions about the field of psychology have been studied for different populations, and in different ways. Students are among the most popular sample groups. Much of the work has involved giving students self-administered questionnaires designed to measure their common misbeliefs concerning psychology (McKeachie, 1960; Gardner & Dalsing, 1986). One of the earlier studies, McKeachie (1960), studied the misconceptions about psychology among introductory psychology students using the 100-true/false item Northwestern Misconceptions Test. The test measured the number and type of misconceptions about the field of psychology, and measured how much knowledge students gained subsequent to taking a psychology course.
It was found that in overall, students acquired knowledge in the areas measured by the test, though the improvement was minimal, especially on items in which their professors saw as important for students to know, as well as on items that are less important for them to know. It would appear, therefore, that introductory courses have little effect, in a practical sense, on some common beliefs about psychology which are widely held by students. Lamal (1979) argued that this is not surprising considering students already have relatively long histories of exposure to widely-held beliefs concerning psychology via the mass media, parents, and peers.

The Northwestern Misconceptions Test was one way researchers attempted to measure misconceptions about psychology in the early 60’s. Following that, the most widely cited misconceptions test was Vaughan’s (1977) “Test of Common Beliefs”. Both the Northwestern Misconceptions Test and the Test of Common Beliefs were criticized on the grounds that many items were ambiguous when measuring students’ misunderstanding of psychology (Brown, 1983; Ruble, 1986). Ruble (1986) argued that tests using true/false format to identify misconceptions about the field of psychology can be misleading. One of the strongest disadvantages of any true/false test is the high probability of getting the correct answer by chance. He suggested that these tests do not provide room for individuals to explain their thinking in relation to the items on the test. Improving test construction was absolutely necessary and avoiding ambiguous wording and topics that are heavily debated were suggested as ways to improve validity of the inventories.

McCutcheon (1991) decided to depart from the usual true-false format and instead designed a multiple choice test of misconception. The McCutcheon Test of
Misconceptions (MTM6), which is now in its sixth edition, is a multiple choice test used to measure common misconceptions about psychology (McCutcheon, 1991; McCutcheon, Davis, & Furnham, 1993). The test was designed to avoid many of the test construction problems that previous tests shared. It used a 51% elimination criterion to rid itself of items that were too easy, which was a criticism of previous tests. McCutcheon (1991) believed that researchers inaccurately concluded that students did not have misconceptions about psychology, as the tests used were easier than the researchers expected. A number of myths about psychology were abandoned as more accurate information became available to the public.

The new 62-item McCutcheon Test of Misconceptions was administered to 79 students who were enrolled in introductory psychology classes. Results indicated that there really was a substantial number of misconceptions concerning psychology among introductory students. McCutcheon (1991) found that students who had taken previous psychology courses scored only slightly higher on the test than students who had not taken psychology courses. Many of these students have shown the poor knowledge of psychology that lay people possess. However, it was argued that the test itself is clearly more difficult than McCutcheon hoped for, with less than 50% of psychology students scoring the correct answer. In addition, the test did not cover all areas of psychology. However, the finding of the study was consistent with previous research regarding college students’ perceptions about psychology and previous experience with psychology classes (e.g. Lamal, 1979).

The MTM6 was administered to students in the United States and London. Students in London were significantly more accurate than students in the United
States on ten items, and students in the United States were significantly more accurate than students in London on one item. These results suggested that there may be cross-cultural differences in misconceptions about psychology (McCutcheon et al., 1993).

Much research has reported that misconceptions about the general issues in psychology are more prevalent among non-psychology major students. Although psychology major students are also prone to erroneous beliefs, a lot of these misunderstandings were related to the training in psychology and their future career goal (Nauta, 2000). Rosenthal (2004) examined how undergraduate psychology courses affect students’ perceptions of the profession of psychology. The study was conducted using the Profession of Psychology Scale (Rosenthal, McKnight, & Price, 2001) developed to assess public perceptions of the profession of psychology. One hundred fifty-four undergraduate students registered in six undergraduate psychology classes volunteered to take part in the study. The participants were divided into two groups based on the number of psychology courses completed: naïve group (no psychology courses completed) and sophisticated group (consisted students who have taken at least 5 psychology courses).

Results showed that the concepts that most define what a psychologist is and what they do (e.g. minimal qualifications, licensure, lack of prescription privileges) were mastered better by the sophisticated psychology students (Rosenthal et al., 2001). This result was similar to Standing (2003) who reported that psychological misconceptions were lower among students who were majoring in psychology.
5.5 Misconceptions among General Public/ Non-psychologist

The majority of the studies discussed earlier involved university/college students. Very few have examined the adult population’s knowledge of psychology in general. Furnham et al. (2003) reported two studies, each examining students’ and adults’ knowledge of psychology. The student group consisted of 114 first-year psychology students and the non-student group consisted of 222 adults. Participants completed a 106-item true/false quiz. The student group completed the questionnaire in-class one week after arriving at the university for the first time, while the non-student adults were obtained from the general population. Results seemed to indicate that there was no significant difference in the correct responses between psychology student and the non-student group, with both groups scoring around 53% of the answers correct. A series of regressions was also performed (on prior exposure to psychology and other demographic characteristics), results failed to indicate any major variables that predict knowledge of psychological processes (Furnham et al., 2003).

5.6 Attitude towards Psychology: Favourable Yet Inaccurate Public Image

Despite uncertainty about what the field of psychology entails, and ideas that psychology lacks a certain amount of scientific rigor, the public tends to look favourably upon the field of psychology. Wood et al. (1986) surveyed a diverse population of people \( N = 201 \) living in four metropolitan areas in the United States. The interview consisted of a 26-item questionnaire where respondents would indicate how good psychology is and how helpful it is.
Results for individual respondents were combined, and an overall score for all respondents in each category were established. Of those interviewed, 91.35% responded favourably or somewhat favourably about the goodness and the helpfulness of psychology. With questions that aimed to study the ability of the respondents in distinguishing psychology from psychiatry, e.g. psychiatrists, rather than psychologists, prescribe drugs for mental illness (80.60% vs. 15.42%, \( p<0.001 \)). Results in general showed that respondents managed to differentiate between the two fields. Only 6.47% of respondents were unsure of the duties of psychologists, and majority of the respondents indicated that a psychologist needs a bachelor’s degree (24.14%) and postgraduate work (68.96%). When respondents were asked about psychology’s impact on their daily lives, only 45.41% of the total respondents were somewhat aware of the impact of psychology had on their lives, with majority of the (81.32%) described the impact as their personal or friends’ and relatives’ therapy experiences (Wood et al., 1986). Because the most salient effect of psychology apparently involves mental health services, Wood et al. (1986) concluded that respondents were somewhat aware of psychologists being involved with clinical and scientific activities, but most were unaware of the impact psychology had on their lives.

Wood et al. (1986)’s findings were similar to Webb and Speer (1985). Webb and Speer (1985) researched the public image of psychology with middle-class students and their parents from Texas. They found that participants viewed psychologists “favourable but inaccurately”. Additionally, participants in the study had a very difficult time distinguishing psychologists from psychiatrists, and saw them as being highly correlated (\( r=0.98 \)). In response to their findings, Webb and
Speer (1985) emphasized the need for psychologists to inform the public about the types of services psychologists provide, and not be concerned with their favourability ratings. It is hoped that with a greater amount of information being conveyed to the public, there would be an increase in the use of psychological services, and a better match in programs and services for those seeking psychological assistance.

In response to the apparent lack of appreciation of psychology, the American Psychological Association (APA) has increased its attempts to improve the accuracy of the public’s perception of psychology, and to publicize psychology’s goal. Such attempts include public awareness campaigns through radio shows, increase research funding, setting up a task force to report on empirically validated therapies to serve as vehicles to inform the public about psychologists’ expertise, and to encourage psychologists to reach consensus as to which types of psychotherapy have a firm, scientific foundation to elicit more favourable reactions from the general public about the discipline. Some psychologists were angered by the suggestion that some treatments were proven to be more effective and scientific than others. Thus, if psychologists cannot agree about the nature of the discipline, it may be difficult to convince the general public. For this reason, many researchers (e.g. Taylor & Kowalski, 2004; Thompson & Zamboanga, 2003;) have attempted to explore ways to reduce/ minimize the level of misconceptions in psychology beginning at the early training stage.
The greatest challenge many psychology instructors face may not be teaching students new information, but teaching them that what they already believe to be true about psychology is often wrong. In class, students bring with them a wide array of misconceptions and misunderstandings that many, if not most, can be remarkably resistant to change. Several attempts were made to investigate ways to reduce or dispel these misconceptions students brought along to class. Efforts include examining the source of misinformation, the effectiveness of the introductory psychology in correcting the misconceptions, and identifying factors that affect students’ perceptions, e.g. prior training, and exposure, culture, and more.

Thompson and Zamboanga (2003) examined whether course achievement for introductory psychology students is facilitated or impaired by their prior knowledge of psychology from sources including formal coursework in secondary school and informal lessons from folk theories, the media and personal experience. A pretest was administered to 422 students early in the semester. The 25-item multiple-choice pretest was developed to include questions about history and theories, research methods, motivation and emotion, sensation and perception, learning theories, social psychology, just to name a few. Folk theories, e.g. “birds of a feather flock together” were also included. Thompson and Zamboanga (2003) found that students in the Introductory Psychology class performed rather poorly on the pretest exam (38%), but their performance improved significantly on the same questions that were included on subsequent unit exams (77%), which suggests strengthened student understanding as the result of instruction. Thompson and Zamboanga (2003) have also explored other
factors that were believed to have contributed to the improvement. These predictors include students’ year in school and intended major. However, both predictors were not significant (Thompson & Zamboanga, 2003).

The subsequent year, Taylor and Kowalski (2004) developed a 36-item true/false questionnaire assessing the prevalence of misconceptions regarding information in psychology, as well as the effects of strength of beliefs and source of information among 90 introductory psychology students. Students were given a pre-test during the first class and a post-test during the last week of the semester. Participants were requested to answer if each item was true or false, followed by the confidence rating from 1 to 10. Confidence rating of 1 – 4 reflected guessing; 5 – 7 reflected a moderate level of confidence; 8 – 10 being very confident. The participants were also told to indicate the source of the (mis)information.

Results suggested that misconceptions remain prevalent among introductory students after taking the course (pre-test accuracy = 38.5%; post-test accuracy = 66.3%). Only 28% of all responses rated between 1 and 4 for the confidence level. These responses were removed and the pre-test accuracy and post-test accuracy were re-calculated, showing 35.6% and 67.6% respectively. As predicted by Taylor and Kowalski (2004), the change was significant.

The source of knowledge was then analyzed separately for frequency. Most participants did not remember how they learned the information (36.7%), 18.9% indicated through personal experience, 16.2% through media sources, 14.3% through classroom learning, and 13.1% through reading. Taylor and Kowalski (2004) noted
that most participants were guessing for the correct answer when they could not remember the source of the information. It is also interesting to note that information acquired through personal experience is much more accurate than those obtained from the media. This has helped to explain how media, which has played an important role in introducing psychology to the society, also serves as an important source of "influence" to our society especially misleading portrayal of psychologists in television or movies (Edney, 2004).

5.8 Chapter Summary

Numerous researchers have studied the misconceptions that students bring with them to introductory psychology course. Beginning with the work of McKeachie (1960) and Vaughan (1977) through more recent studies (e.g. McCutcheon, 1991; Rosenthal et al., 2001; Thompson & Zamboanga, 2003; Taylor & Kowalski, 2004) and across regions (e.g. Australia, Hong Kong). Although the specific nature of students’ misconceptions differs across some of these studies, one point is not disputed: Students do bring along with them misconceptions when they enter psychology course and believe that psychology is largely based on common sense.

Current knowledge about public opinion and understanding of psychology is limited because much of the aforementioned studies only provide psychologists with a general picture of how psychology is perceived in the society. In general, the results shows little about where the general public obtain information about psychology, and how attitudes towards psychology develop.
A fuller understanding of psychology’s public image can suggest ways to educate public about the nature of the field and its significance for everyday life. Current efforts include public education campaigns, formal training of psychology in educational institutions, and monitoring media depictions of psychology and mental health. In conclusion, increased public understanding of the value of psychology will allow psychology to play a more significant role in addressing one of its aims – promoting human welfare.

5.9 From Literature Review to the Present Study

Chapter 4 and Chapter 5 have provided reviews of previously published studies on public beliefs and attitudes toward mental health and psychology. Although the vast majority of studies covered in both chapters have been conducted in Western countries, they have certainly provided a direction for present study.

The following chapter will describe the importance of the investigation of attitude and knowledge, and they are hypothesized to be related to help-seeking behaviour. Based on a review of the pertinent literature, a conceptual framework has also been devised.
CHAPTER VI – CONCEPTUAL FRAMEWORK

6.1  Introduction

This chapter introduces the definition and the model of attitude components. It also examines the relationship between knowledge, attitude and behaviour. The conceptual framework and the hypotheses of the study are also discussed and presented in the final part of this chapter.

6.2  Definition of Attitude

Attitude has been a research subject for a long time, yet there is no general agreement concerning the definition of attitude (Olson & Zanna, 1993). Thurstone (1928, as cited in Mueller, 1986) defined attitude as ‘the sum total of a man’s inclination and feelings, prejudice and bias, preconceived notions, ideas, fears, threats, and convictions about any specific topic’. Subsequently, it was redefined as ‘the intensity of positive or negative affect for or against a psychological object’ (p.39, cited in Mueller, p.3). Mueller built on Thurstone’s definition and restated attitude as an affect for and against, an evaluation of, like or dislike of a psychological object.

Eagly and Chaiken (1993) define attitude as ‘a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. ‘Psychological tendency’ was referred to a state that is internal to a person, whereas ‘evaluating’ was referred to all classes of evaluative responding, either overt or covert, cognitive, affective, or behavioural. A psychological tendency can be regarded
as a type of bias that predisposes the individual towards evaluative responses that are either positive or negative. In short, the key elements in attitude are an attitude object and the evaluation towards it. Attitudes are “about” something (Adjen, 2001).

Attitude can also be broadly defined as an evaluative disposition that is based upon cognition, affective reactions, behavioural intentions and past behaviours; and that can itself influence cognition, affective responses, and future intentions and behaviour (Zimbardo & Leippe, 1991). It was believed that the stated components are not independent or isolated. On the contrary, they can be highly interrelated.

In summary, attitude is not a behaviour, rather it is a precondition for behaviour, a predisposition to respond in a particular way to an attitude object, which include things, people, places, ideas, actions or situations, either singular or plural.

6.3 Theoretical View of Attitude Components

Most attitude theorists agree that the components of attitude consist of three aspects, namely: cognitive, affective and behavioural (Olson & Zanna, 1993). This model is the most widely cited model of attitude, providing an important conceptual framework for much attitude research.

The cognitive components are made up of a person’s understanding of beliefs about the attitudinal object, whereas the emotional components are made up of a person’s feelings towards and emotional reactions to the attitude object. Lastly, the
behavioural components refer to a person’s predisposition to act in a particular way toward the attitude object (Rogers, 2003).

The tripartite model stresses the link between attitudes and behaviour but does not imply that one determines the other. Holding appropriate attitudes increases the probability that a person will act in a certain way, yet does not always directly affect behaviour. Figure 6.1 illustrates the tripartite model of attitude.

![Figure 6.1](image)

**Attitude and Its Components**

6.4 Attitude and Behaviour

Attitudes play an important role in how we process information. Attitude affects our goals and expectations; it guides us as we selectively evaluate information. Generally, we find information that is contrary to our knowledge and attitudes to be less convincing (Eagly & Chaiken, 1998). Several factors determine how likely it is that an attitude will lead to a behaviour to occur. For instance, an attitude is more likely to affect behaviour when it is strong, relatively stable, important, of high personal relevance, directly related to the behaviour and easily accessed from memory.
(Adjen, 2001). However, people are often unwilling to act out their attitudes because to do so would show them in an unflattering light. This is known as the social desirability effect (Roger, 2003).

**The Concept of Accessibility to Attitude**

The concept of the ‘Accessibility to attitude’ explains that the more accessible the attitude, the more consistent the behaviour (Adjen, 2001). Accessibility of attitude consists of two variables: direct experience and prior knowledge/information. For an attitude to guide behaviour, it needs to be accessible, and it should be appropriate or relevant to the situation. McKnight and Sutton (1994) argue that an attitude’s strength and availability increase its predictability. Attitude we acquire directly are more vivid and have greater perseverance than those indirectly acquired. The elements of ‘direct experience’ and ‘prior knowledge’ can be mutually reinforcing because the more knowledge we have about a target, the more confident or willing we are in approaching the target. On the other hand, the “first-hand” directly acquired information may also be more accurate (Eagly & Chaiken, 1993). In short, attitudes based upon direct experience would be more likely to prompt consistent behaviour than attitudes based upon indirect experience. This is because attitudes based on direct experience form more readily accessible memories.

6.5 **The Tripartite Model of Attitude and Attitude formation**

Many of our attitudes derived from early, direct personal experience. The emotional elements of attitudes are most obviously formed by direct experience,
where an attitude object is accompanied by a strong emotional response. Emotional information can predominate over cognitive information (Roger, 2003). If an individual experience strong negative emotional reactions to mental illness, the individual is much less likely to talk about or seek help from mental health professionals when needed even when he/she knows it to be the right treatment. Cognitive elements of attitudes are also influenced by direct experience, but mostly through the product of external sources of information, such as conversations with others, what people read in books and newspapers, through media, etc (Roger, 2003).

Conversely, attitudes based on indirect experience, such as hearsay, would have less influence on behaviour than those based on direct experience (Eagly & Chaiken, 1998). One common means of indirect experience by which our attitudes develop is through the process of social learning. For instance, Santrock (2002) provides this example: A person may have little or no emotional reaction to people with mental illness. If, however, this individual sees people around him or her showing signs of negative reactions when in the presence of a mentally ill person, he/she may gradually acquire a negative reaction to them resulting form the process of classical conditioning, a type of learning that occurs when a neutral stimulus becomes paired (associated) with a stimulus that causes a reflexive behaviour and, in time, is sufficient to produce that behaviour (Santrock, 2002). Similarly, when psychology is often paired with mental illness by media and by people with minimal exposure and knowledge about the profession. After a few parings of the two stimuli, this person may also react negatively to people who have visited a psychologist’s office regardless of the purpose of the visit, as well as the profession. Figure 6.2 summarizes
the three attitude components and the possible source for attitude formation based on Roger (2003), Eagly & Chaiken (1998) and Santrock (2002).

Figure 6.2
Tripartite Model of Attitude and Possible source for Attitude Formation

6.6 Chapter Summary

Considerable research has been done on the concept of attitude, yet there is no universally agreed definition for attitude. The tripartite model of attitude, one of the most widely-accepted models, is composed of cognitive, emotional, and behavioural components. The concept of ‘accessibility to attitude’ introduces two variables, i.e. direct experience and knowledge, both of which arguably can increase the predictability of behaviour by a readily accessible attitude.
Attitudes towards mental illness are deeply rooted in society. The concept of mental illness is often associated with fear of the potential threat of mentally ill patients. This has led to the mentally ill population continuing to be stereotyped and stigmatized. A stereotype is a belief or a set of beliefs about people in a particular social category. Once a stereotype is activated, we react to a person’s “membership” in the category, not to the characteristics of the individual person. In order to develop and/or enhance a more positive attitude towards mental illness and its related profession, i.e. psychology, assessing the general public’s attitude and identifying factors affecting the attitude would be the preliminary requirement.

The present research intends to explore the factors affecting general public attitudes towards psychology as a profession, as well as the concept of mental health and the understanding of mental illness. It also attempts to study the relationship between attitudes and the tendency to seek psychological services when necessary. Based on a review of the pertinent literature, the following conceptual framework has been devised:
In this study, the predictor variables are: demographic characteristics of the respondents, prior knowledge and prior exposure to individuals with mental health problem(s) and/or mental health professionals. From the literature reviewed, age (Angermeyer & Dietrich, 2006), sex (Gaebel et al., 2002), ethnicity and culture (Kabir et al., 2004), religious beliefs (Razali et al., 1996; Sheikh & Furnham, 2000), level of
education (Kabir et al., 2004) and urban vs. rural population (Bartlett et al., 2006) were found to have affected the community attitude towards mental health issues. As far as the level of knowledge is concerned, the research reviewed has demonstrated that misconceptions about mental health prevailed among the general public (Furnham et al., 2003) as well as students who are trained in areas closely related to mental health, e.g. psychology (Furnham et al., 2003; McCutcheon et al., 1993). Prior knowledge could come from various sources, from personal experience, to the media or hearsay. If knowledge is a factor affecting attitude, it is also one of the reasons why interventions are needed to reduce such misconceptions to improve attitudes. In order to examine whether misconceptions can be dispelled or knowledge can be strengthened by introducing basic information about psychology, students enrolled in introductory psychology courses were invited to take part in a longitudinal study.

With regards to prior exposure to mental health professionals, much research has shown that people who have sought assistance from mental health professionals are likely to hold more positive attitudes towards the profession and mental health issues and help-seeking (e.g. Hartwig & Delin, 2003).
Based on these conceptual frameworks, various hypotheses were developed:

1. Demographic factors (i.e. age, sex, religion, ethnicity, students enrolled in psychology course) affect respondents’ attitudes towards psychology and mental health.

2. There is a relationship between prior exposure to psychology, people with mental health problem(s), mental health professionals, and one’s attitude towards psychology and mental health.

3. Greater knowledge, prior exposure, personal experiences are positively correlated with more positive attitudes towards psychology and mental health.

4. Positive attitudes are likely to lead to greater levels of willingness to seek help from mental health professionals when necessary.

5. The source where a person learned a misconception from would affect the likelihood of the misconception being dispelled after attending the introductory psychology course.

6. Demographic factors (i.e. age, sex, religion, ethnicity, residential area), knowledge and prior experience are predictive of attitude and as well as the tendency to seek psychological services.
7.1 Introduction

The present research tries to investigate the local attitudes of the general public within the Klang Valley, Malaysia towards psychology as a profession and mental health issues. Mental well being is instrumental to quality living and personal growth. Thus, achieving better mental health is one of the top priorities for the 9th Malaysian Plan (National Institute of Health, 2006). This has necessitated wide research to investigate community attitudes towards mental health and barriers that stop people from seeking help from mental health professionals.

Prior to the development of the questionnaire, it is important to explain the choice of comparison groups in these studies. As the project targeted public perception of psychology and mental health, the respondents would obviously be the general public. However, it would also be interesting to examine if individuals with prior training in psychology or mental health share a similar knowledge level and attitude. Hence, one approach used in this study was to compare lay people that had no particular exposure to psychology with a group that had expressed distinct interest in the topic (e.g. those who have enrolled in a psychology course) or have had some formal training in psychology. The aim was to see if this group would outperform a population sample.

In order to measure knowledge and attitudes, a suitable tool is of paramount importance. This section evaluates the suitability of existing relevant scales, and
reports the process of development of two batteries for this research project: The Psychology and Mental Health Questionnaire I (PMHQ-I) and The Psychology and Mental Health Questionnaire II (PMHQ-II).

7.2 The Design of the Questionnaire Based on the Conceptual Framework

Content of the Instrument

Prior to the construction of the questionnaire, a comprehensive literature review was conducted via electronic sources. These include PsychINFO, PsychARTICLES, Ingenta, MEDLINE, Blackwell-Synergy and search engine Yahoo! and Google to explore the availability of scale(s) already developed either locally or worldwide which could be used to measure public’s knowledge of and attitude levels regarding psychology and mental health. Among the search results, only survey that included measures of knowledge and attitudes or articles that have been repeatedly cited were selected. Table 7.1 summarizes the seven scales (three on attitude/knowledge on psychology; four on attitude/knowledge on mental health and mental illness) selected to be used as reference.
<table>
<thead>
<tr>
<th>Source</th>
<th>Sample</th>
<th>Knowledge of Psychology</th>
<th>Attitude towards psychology/psychologist/mental health professionals</th>
<th>Knowledge/beliefs of mental health</th>
<th>Attitude towards mental health/mentally ill people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taylor &amp; Kowalski, 2004</td>
<td>College students</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Furnham, Callahan, &amp; Rawles, 2003</td>
<td>College students, Adults (general public)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pinfold, Toulmin, Thornicroft, Huxley, Farmer, &amp; Graham, 2003</td>
<td>Secondary school students</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Scottish Executive Social Research, 2002</td>
<td>Adults (general public)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The National mental Health Association, 2001</td>
<td>Adults (general public)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rosenthal, McKnight, &amp; Price, 2001</td>
<td>College students</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mental Health Association in Indiana, 2001</td>
<td>Adults (general public)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
7.3 Process of Developing the Psychology and Mental Health Questionnaire I (PMHQ-I)

In order to decide on the items to be included in the questionnaire, three psychologists/psychology instructors, holding at least a Master degree in psychology, two undergraduate psychology students, and two people with no prior training in psychology were invited for a focus group discussion. The discussion was conducted through e-mails. All members of this discussion group gave input as to how people perceived psychology, psychologist and mental health issues.

The participating seven members felt that the general public harbours misconceptions about who psychologists are and what they do. They did not think that the general public present negative attitude towards psychologists, however, the general public does often associate psychologists with mental illness, or equate them with psychiatrists. Some of the misconceptions pertaining psychology as a profession or the training of psychology include: Psychologists read people’s mind; Psychology is simply common sense, etc.

When public’s perception about mental health was discussed, group members unequivocally pointed out that there are some great misconceptions regarding mental health and mental illness, e.g. mental health is defined as the absence of mental illness, mental illness is different from physical illness. The group members also believed that the members of the general community generally held an unfavourable attitude to people with mental disorders. Many are ignorant to the severity of problems suffered by people with mental illness or believe that they are aggressive/
violent or dangerous. People do not know how to communicate with people with mental illness, and the nature or cause of mental illness is poorly understood. Mentally ill individuals are also hesitant to seek help due to the fear of stigmatization. The contents and the detailed records of the group discussion are attached in Appendix A.

7.4 Construction of the Questionnaire

The first stage of questionnaire construction was performed based on the literature review, psychology quiz available on websites (including the Malaysian Psychiatric Association website) and ideas generated from the group discussion. The first draft of the questionnaire was devised.

The PMHQ-I is a 44-item questionnaire developed to collect information on people’s knowledge and perception of psychology and mental health, sources of information about both issues, and attitude towards psychology as a profession and mental health problems. The questionnaire was divided into four parts.

Part I consists of 16 items collecting information on respondents’ demographic characteristics, examining such details as sex, age, religious beliefs, ethnicity and education level. The purpose is to explore to what degree these factors influence attitudes towards psychology and mental health. This part of the questionnaire will also investigate the contact of the general public with individuals who may have mental health problems, or have sought help from mental health professionals. It also aims to examine the public’s prior exposure to psychology and the familiarity with the
role of mental health professionals, particularly psychologists. Hence, questions of such were also formulated.

Part II consists of 18 items assessing knowledge about psychology and mental health. The 18 items were adopted or modified from previously published questionnaires (Taylor & Kowalski, 2004⁶; Rosenthal et al.⁷, 2001; Rosenthal, 2004; Furnham et al., 2003) and an introductory psychology text book written by Zimbardo, Weber, and Johnson (2000). The 10 items in the Mental Health subscale were adapted from various national mental health surveys (e.g. Malaysian Psychiatric Association, 2006; The National Mental Health Association, 2001; Scottish Executive Social Research, 2002) and published questionnaire (Taylor & Kowalski, 2004). All items were written in everyday, non-jargon language.

In Part II, respondents were required to rate each item as “true”, “false”, or respond “don’t know” if they do not know the answer. The inclusion of the “don’t know” response was intended to reduce pure guessing. For each response, respondents were also requested to note, as specifically as possible, where they learned the information by classifying the sources of knowledge into categories, including media (e.g. television programme, movie), personal experience, reading materials (e.g. books, newspaper, magazine, journal article), the internet, classroom knowledge, “don’t remember” and “others” with space for participants to indicate the source of information.

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⁶ Permission granted by authors through email on March 1, 2006
⁷ Permission granted by authors through email on March 28, 2006
The total number of correctly answered items for each participant was recorded. One mark was awarded to each correctly answer items. Respondents could score between 0 and 18. For this knowledge scale, the higher the score obtained meant a higher level of knowledge, or fewer misconceptions.

Part III consists of 10 items assessing the overall attitude towards psychology as a profession and mental health issues. Respondents were required to rate how much they agree or disagree with each statement. Each item was scored on a four-point Likert scale.

The Attitude Scale was scored using the following method:

The following statements received a score of 4 if the respondent agreed strongly, 3 if they agreed slightly, 2 if they disagreed slightly, and 1 if they disagreed strongly.

1. Anyone can suffer from mental health problems.
2. People are generally caring and sympathetic to people with mental health problems.
3. The majority of people with mental health problems recover.
4. People with mental health problems should have the same rights as anyone else.
Conversely, the remaining statements received a score of 1 if the respondent agreed strongly, 2 if they agreed slightly, 3 if they disagreed slightly, and 4 if they disagreed strongly:

1. Psychology is simply common sense.
2. If I suffer from mental health problems, I wouldn’t want people to know.
3. A person who has visited a psychologist’s office is a person with mental disorder
4. I would find it hard to talk to someone with mental health problems.
5. People with mental health problems are often dangerous/ violent.
6. People with mental health problems are largely to blame for their own condition.

Therefore, the higher the score obtained meant a more positive attitude towards psychology and mental health. The minimum possible score is 4 and the maximum possible score is 40.

The final part consist of one item to investigate the tendency of respondents to seek help from mental health professionals if suffer from mental health problem. The reason for not seeking help was also examined.

The questionnaire was initially developed in English. The questionnaire was subsequently being translated into Malay and Chinese to cater to the multi-cultural population.
The English version of the PMHQ-I was translated into Malay and Mandarin language through the process summarized in Figure 7.1.

**Figure 7.1**

The Translation Process
Malay translation

Two bilingual psychologists/social workers were involved in the translation: One in the forward translation and another one in the back translation.

Forward translation

The English version of the Psychology and Mental Health questionnaire was forward-translated by the psychologist into Malay. The translated Malay version was checked and drafted.

Back-translation

The first draft of the Malay was back-translated to its English version (source language). The back-translated English questionnaire was then compared to the original English version to check equivalence and accuracy. Non-equivalent words and phrases, poorly written sentences and grammatical errors were corrected. The procedure and techniques followed Brislin (1970). The second draft of the questionnaire was piloted with 20 respondents. Minor changes were made and the final version was drafted.
A similar procedure was used in the translation of the English version into the Mandarin version.

7.5 Pilot Study I

To test the reliability of the scales, the questionnaires of all three languages were tested in a small pilot study with 80 respondents aged 18 and above. Respondents were encouraged to take as much time as necessary and be truthful. They were assured that their responses would be anonymous.

On average, respondents took less than 20 minutes to complete the questionnaire. After the collection of data, Kuder-Richardson Formula 20 (KR 20) was used to establish the reliability of the knowledge scale. Results indicated that the knowledge scale has a relatively high internal consistency of 0.736. Cronbach’s alpha was also run on the attitude scale indicating relatively high internal consistency, \( \alpha = 0.723 \). The majority of the respondents understood all items in the questionnaire. No item was reported to be ambiguous in Part III.

Factor analysis was not performed on the knowledge scale because factor analysis cannot be performed on nominal data. Thus, the scale was divided into 2 subscales based on what the items were measuring in previously published articles, i.e. knowledge about psychology or knowledge about mental health issues. The Psychology Knowledge subscale consists of 8 items: item 1, 2, 3, 4, 5, 7, 8, 12; The
Mental Health Knowledge subscale consists of 10 items, 6, 9, 10, 11, 13, 14, 15, 16, 17, 18. Similarly, the attitude scale was also divided into 2 subscales. Items 1 and 3 measure attitudes toward psychology as a science and the nature of the profession, whereas items 2, 4, 5, 6, 7, and 8 measure attitudes toward mental health issues, including stigma. Reliability test was once again conducted for each subscale. Table 7.4 shows the results of the reliability tests.

Table 7.2
Reliability tests for the Pilot Version of Knowledge Scale and Two Subscales (PMHQ-I)

<table>
<thead>
<tr>
<th>Scale</th>
<th>KR-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0.736</td>
</tr>
<tr>
<td>Psychology subscale</td>
<td>0.704</td>
</tr>
<tr>
<td>Mental Health subscale</td>
<td>0.746</td>
</tr>
</tbody>
</table>

Generally, a sample size of 200 and above is preferred for factor analysis (Coakes, 2005). The sample size for the pilot study was only 50, therefore, Bartlett’s test of sphericity and the Kaiser-Meyer-Olkin measure was performed to decide whether factor analysis is useful for the attitude scale. Bartlett’s test of sphericity was significant, and the Kaiser-Meyer-Olkin measure of sampling adequacy was above 0.6, hence, the results of the factor analysis may be useful (Coakes, 2005)
Therefore, in addition to the test of scale reliability, factor analysis was performed to establish the factorial validity of items that make up the attitude scale. The attitude scale was initially designed to measure respondents’ attitude towards psychology and mental health. As indicated in the factor analysis, two components were extracted. The first factor ‘mental health’ explains 39.7% of the variance, factor two ‘psychology’ accounts 15.9% of the variance. The two factors together account for the total variance of 55.5%. All 10 items achieved a loading exceeding 0.4 (Table 7.5).

The questionnaire was further refined before the main fieldwork stage of the study. The final questionnaire is reproduced in Appendix B.
### Table 7.3

Attitude toward Psychology and Mental Health – Factor Loading of Items

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Factor 1</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>People with mental health problems should have the same rights</td>
<td>0.81</td>
</tr>
<tr>
<td>6</td>
<td>I would find it hard to talk to someone with mental health problems</td>
<td>0.78</td>
</tr>
<tr>
<td>5</td>
<td>The majority of people with mental health problems recover</td>
<td>0.78</td>
</tr>
<tr>
<td>4</td>
<td>Anyone can suffer from mental health problems</td>
<td>0.77</td>
</tr>
<tr>
<td>8</td>
<td>People with mental health problems are often dangerous/violent</td>
<td>0.67</td>
</tr>
<tr>
<td>7</td>
<td>People are generally caring and sympathetic to ppl with mental health problems</td>
<td>0.64</td>
</tr>
<tr>
<td>2</td>
<td>If I suffer from mental health problems, I wouldn't want ppl to know</td>
<td>0.60</td>
</tr>
<tr>
<td>10</td>
<td>People with mental health problems are largely to blame for their own condition</td>
<td>0.50</td>
</tr>
</tbody>
</table>

α = 0.838

|    | **Factor 2**                                                         |                |
| 1  | Psychology is simply common sense                                   | 0.84           |
| 3  | Person who has visited a psychologists' office is a person with mental disorder | 0.67 |

α = 0.534
7.6 Process of Developing the Psychology and Mental Health Questionnaire II (PMHQ-II)

Following the development of the PMHQ-I, an additional questionnaire, PMHQ-II, was devised. As stated earlier in this chapter, it is part of the aim of this study to examine if individuals with prior training in psychology or mental health share a similar knowledge level with the population sample. The PMHQ-II was modified from PMHQ-I and only consists of two parts: Part I – Personal Information and Part II – Knowledge in Psychology and Mental Health.

The PMHQ-II is a 45-item inventory. Part I consists of 10 items collecting information on respondents’ demographic characteristics. The items were identical to PMHQ-I part I, examining such details as sex, age, religious beliefs, ethnicity and prior exposure to mental health services. Respondents were also requested to note the reason for choosing psychology as their major (if applicable) and the number of psychology courses to date. One special column was included in the questionnaire for respondents to write the word “psychologist” in their native language (other than English).

Part II consists of 35 items assessing knowledge about psychology and mental health. Among the 36 items, 18 items were drawn from the Knowledge scale in PMHQ-I. This would allow the comparison of knowledge level of the two groups. Seventeen additional items were added to the scale. The 18 items were taken from Taylor & Kowalski (2004), Rosenthal et al. (2001), Rosenthal (2004); Furnham et al. (2003) and various introductory text books. All items were written in everyday, non-
The purpose of developing an additional questionnaire was to examine students’ knowledge of psychology prior to and upon completion of the introductory psychology course. Details of the research design will be explained in Chapter 8.

In Part II, respondents were required to rate each item as “true”, “false”, or respond “don’t know” if they do not know the answer. The inclusion of the “don’t know” response was intended to reduce pure guessing. For each response, respondents were also requested to note, as specifically as possible, where they learned the information by classifying the sources of knowledge into categories, including media (e.g. television programme, movie), personal experience, reading materials (e.g. books, newspaper, magazine, journal article), the internet, classroom knowledge, “don’t remember” and “others” with space for participants to indicate the source of information. The total number of correctly answered items for each participant was recorded. One mark was awarded to each correctly answer items. For this knowledge scale, the higher the score obtained meant a higher level of knowledge, or fewer misconceptions.

7.7 Pilot Study II

In order to test the reliability of the scales, the PMHQ-II was tested in a small pilot study with 40 college/ university introductory psychology students from two university colleges located in Klang Valley. The questionnaire was administered “in class” during the first day of the Introductory Psychology course. Students were
encouraged to take as much time as necessary and be truthful. They were assured that their responses would be anonymous.

On average, respondents took less than 20 minutes to complete the questionnaire. After the collection of data, a reliability test was run and item-total correlation coefficients of each item of knowledge scale were obtained (Table 7.6). A reliability analysis indicated that the knowledge scale has a moderate internal consistency of $\alpha=0.725$. No item was reported to be ambiguous.

While factor analysis was not performed, the knowledge scale was divided into 2 subscales based on what the items were measuring in previously published articles, i.e. knowledge about psychology and knowledge about mental health issues. The Psychology Knowledge subscale consists of 25 items: item 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 28, 29, 33 and 35; The Mental Health Knowledge subscale consists of 11 items, 4, 5, 19, 20, 21, 27, 30, 31, 32, 34, and 36. Reliability test was once again conducted for each subscale. Table 7.7 shows the results of the reliability tests.

Table 7.4
Reliability tests for the Pilot Version of Knowledge Scale and Two Subscales (PMHQ-II)

<table>
<thead>
<tr>
<th>Scale</th>
<th>KR-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0.725</td>
</tr>
<tr>
<td>Psychology subscale</td>
<td>0.422</td>
</tr>
<tr>
<td>Mental Health subscale</td>
<td>0.610</td>
</tr>
</tbody>
</table>
The questionnaire was further refined and checked by the instructors from the four universities/colleges involved in this study to ensure that all topics would be covered in the Introductory Psychology course before the main fieldwork stage of the study. The final questionnaire is reproduced in Appendix 7.3.

7.8 Chapter Summary

The non existence of a reliable and valid instrument to measure the attitude and knowledge level of the local general public towards psychology and mental health led to the development of a new scale for the present research project. Additional items were included to form a new scale to examine students’ perception of psychology and mental health prior to and upon completion of the introductory psychology course. A pilot study was conducted with the two sample groups respectively. Results revealed that the questionnaires appeared to demonstrate adequate reliability in assessing the attitude and perception of psychology and mental health. All respondents were able to understand the questionnaires. The two scales were ready to be used in this research.
8.1 Introduction

The current research has been divided into two studies: 1) Public perception and attitude towards psychology and mental health, and 2) the evaluation of the possibility of an introductory psychology course to correct any misconceptions and to enhance the knowledge of psychology among psychology students. Both studies have employed a survey design, an appropriate method for data collection.

This chapter introduces the advantages and disadvantages of the survey methodology and justifies why it is adopted. The sample of the study was comprised of two target groups: the households and university/college students. The sampling procedures used are explained, a detailed description of the participants who volunteered to complete the survey is also included.

8.2 Advantages and Disadvantages of the Survey Methodology

The current research has adopted the survey methodology because of the following factors:

1. relatively inexpensive
2. useful in describing the characteristics of a large population
3. flexibility at the creation phase in deciding how the questions will be administered: as face-to-face interviews, by telephone, as group administered written or oral survey, or by electronic means
Surveys come in a wide range of forms and can be distributed using a variety of media. According to a recent review by Angermeyer and Dietrich (2006), population-based attitude research, particularly on public beliefs about and attitudes towards people with mental illness between 1990 - 2004, has mainly adopted the survey methodology through personal interview, telephone interview and postal.

For the purpose of the current research on public knowledge and attitudes, it was decided that a personal interview would be used. When personal interviews are used to collect survey data, respondents are usually contacted in their homes, and trained interviewers administer the questionnaire. In a personal interview, the respondent can obtain clarification when questions are unclear and a trained interviewer can follow up incomplete or ambiguous answers. As compared to mail surveys, or telephone interviews, in personal interviews, qualitative details such as non-verbal cues can also be collected.

Based on the review conducted by Angermeyer and Dietrich (2006), personal interview has a higher response rate (between 64.0% and 98.3%) as compared to telephone interview (between 44.0% and 75.4%) and mail surveys (34.5% and 60.0%). Although the growing fear of urban crime and an increasing number of households with no one home during the day may reduce the attractiveness of conducting personal interviews, with the current trend of many Malaysians migrating from fixed-line to wireless communication (Telekom Malaysia, 2006), conducting a telephone survey may also eliminate individuals who do not have a telephone at home or are not listed in the telephone directory. As such, it was finally decided that personal interview may be a better option.
Despite the advantages of using personal interviews, there are also a few disadvantages. One significant disadvantage involves interviewer bias (Shaughnessy, 2001). The best solution against interviewer bias is to employ highly motivated well-paid interviewers who are trained to follow question wording exactly, to record responses accurately. However, the use of trained interviewers is expensive in terms of both money and time (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2004).

Prior to the beginning of the field work, each interviewer was given one half-day training, and a set of standardized instructions. Interviewers were also supervised closely, especially during the first few visits.

_Self-administered Questionnaire_

The self/group administered questionnaire survey is generally administered to a sample of respondents in a group setting, guaranteeing a high response rate (Barribeau et al., 2005). For the purpose of this research, a specific group of students was identified – students enrolled in the introductory psychology course. Since the training of psychology in Malaysia is relatively young with not many universities/colleges offering psychology as a full undergraduate degree, students can be easily contacted through respective department head or course instructor. This has eliminated the commonly reported disadvantages of the group administered survey, i.e. sampling and scheduling (Barribeau et al., 2005).
8.3 Sampling Design

*The Household Sample*

The research involved face to face interviews with a representative sample of the adult population (i.e. adults aged 18 years and above) in Klang Valley, Malaysia. Klang Valley, comprising of Kuala Lumpur, the capital city of Malaysia, and its suburbs and adjoining cities in the state of Selangor, was selected as the sampling frame. A stratified multi-stage sample design was adopted. There were two levels of sample selection, selection of Enumeration Blocks\(^8\) (EB) in each stratum and selection Living Quarters\(^9\) (LQs) within each selected EB. EBs are geographically contiguous areas of land with identifiable boundaries, each containing about 80 to 120 LQs and about 600 persons. Generally all EBs are formed within gazetted boundaries, i.e. within *mukim* or local authority areas.

The EBs in the sampling frame are also classified by urban and rural areas. Urban areas, as defined in the 2000 Population Census, are gazetted local authority areas with their adjoining built-up areas which had a combined population of 10,000 or more at the time of the census. All other gazetted local authority areas with a population of less than 10,000 persons, and non-gazetted areas are classified as rural areas.

---

\(^8\) Enumeration Blocks created for the 2000 Census of Population and Housing.

\(^9\) A living quarters is defined as any structurally separate and independent enclosure which was constructed as (or converted to) quarters intended for living purposes.
Sample Size Estimation Procedure

The sample size was determined by using the following formula:

\[ n = \frac{Z^2[p(1-p)]}{C^2} \]

\[ = \frac{(1.65)^2(0.10)(0.90)}{(0.05)^2} \]

\[ = \frac{(2.72)(0.09)}{(0.0025)} \]

\[ = 98 \]

where \( n \) = sample size

\( Z = Z \) value (for 90% confidence level)

\( C = \) confidence interval

Using design effect = 2 based on 80% response rate:

\[ \frac{98(2)}{0.8} = 245 \]

In order to be representative, 16 LQs were selected from each EB.

\[ \frac{245}{16} = 15.3 \text{ or } 15 \text{ EBs were selected within each stratum} \]

Hence, for the Household survey, with the help of the Jabatan Perangkaan Wilayah Persekutuan Kuala Lumpur (Kuala Lumpur Department of Statistics) and Jabatan Perangkaan Malaysia Negeri Selangor (Selangor Department of Statistics), a total of 45 EBs, i.e. 15 EBs from Kuala Lumpur (urban due to fact that Kuala Lumpur is 100% urbanized), 30 EBs from Selangor (15 urban areas and 15 rural areas) were selected as sampling points with a probability proportional to the number of addresses. The classification of urban and rural areas was in accordance to
the classification defined in the 2000 Population Census (Appendix C – Klang Valley map with selected areas highlighted).

As indicated earlier, in order for the sample to be representative, the Department of Statistics advised that the number of addresses from each EB should not exceed 16. Hence, in each sampled EB, 16 addresses were selected randomly by the Department of Statistics. One resident adult aged 18 and over from each household was interviewed. In cases where there was more than one eligible member from the selected household, a simple random selection was used to select the resident adult to be interviewed. The resident adult (above 18 years of age) who has celebrated his/her birthday most recently was selected as the respondent.

The Student Sample

A letter was sent to the Department of Psychology/ Social sciences at a particular college/ university to request permission to conduct research with students enrolled in the introductory psychology course on the first day of a new semester/ academic year (Appendix D). With reference to Study Malaysia.com (2007), five private institutions and two public institutions in Klang Valley offered psychology as a degree at the undergraduate level at the time of research. The letter was sent to all seven institutions, four (three private institutions and 1 public institutions) agreed to take part in the study. Based on past students’ admission records from the four institutions, it was estimated that 500 students would sign up for the introductory psychology course during the research period. However, students enrolled in the
introductory psychology course might not necessary major in psychology or have declared a major.

8.4 The Household Survey

Training of Interviewers

In advance of the fieldwork, a verbal instruction protocol was drafted to ensure standardization among interviewers (Appendix E). All field work on this part of the project was conducted by the researcher and 10 interviewers recruited for this purpose. Among the interviewers, 5 were able to speak fluently in 2 languages (Malay and English), while the other 5 were able to communicate fluently in 3 languages (Malay, English and Chinese). All interviewers were given one half-day training. The training included instructions on the survey objectives, question asking, probing on inadequate responses, recording of answers, other administrative duties, e.g. reading the EB maps and using the non-contact sheet (See Appendix H). However, the interviewers were not told about the analysis so as to minimize interviewer bias. Interviewers were also told to keep all data confidential. All interviewers practiced their interviewing skills among each other during the training. All interviewers were supervised and monitored closely during the first 16 visits (i.e. one EB map).

The Actual Fieldwork

The actual fieldwork for the household survey was carried out between late August and early October 2007 after obtaining ethics approval from the University of
Malaya Medical Ethics Committee (Appendix F). The households were contacted by two interviewers, mostly on weekends (between 1000 and 1800, and in the afternoon on weekdays (between 1500 and 1930). The objectives of the survey were explained to the respondents. They were also assured that their participation was anonymous and all the data collected would be strictly confidential. A consent letter was included in the questionnaire (Appendix G). Respondents were invited to read the consent letter carefully and acknowledged the consent once they had decided to take part. The average interview length was 20 minutes. Interviewers manually checked the questionnaire after each interview before proceeding to the next household.

A total of 651 respondents were interviewed, some 69 less than the original target number, 587 completed questionnaires were returned, achieving an overall response rate of 90.17%. The main sample shortfalls were among LQs within the urban areas (74.3%). Respondents were hesitating to answer the door when they were first approached; however, most agreed to response to the questionnaire once the objectives of the survey were explained.

Where possible, interviewers coded reasons for refusal (A copy of the Contact Sheet for the survey is included in Appendix H): of the 19 households who refused to take part in the study, 31.5% said they were too busy, 58% were not interested in the subject and 10.5% refused to answer the door. Each address received at least 3 visits (including at least one in the evening or during the weekend) before it was treated as a non-contact.
One respondent claimed that she was too tired, hence did not complete the entire questionnaire; among those non-contact classified under “other outcomes”, five households did not want to provide any reasons; three households were away while the domestic helpers answered the door. The contact rate details are summarized in Table 8.1.

Table 8.1
Outcome of the survey (Household sample)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Kuala Lumpur (Urban)</th>
<th>Selangor (Urban)</th>
<th>Selangor (Rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>240 (%)</td>
<td>240 (%)</td>
<td>240 (%)</td>
</tr>
<tr>
<td>Less invalid addresses</td>
<td>(4)</td>
<td>(6)</td>
<td>(3)</td>
</tr>
<tr>
<td>(non-residential/ property not found)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less vacant addresses</td>
<td>(8)</td>
<td>(6)</td>
<td>(10)</td>
</tr>
<tr>
<td>Less non-accessible addresses</td>
<td>(16)^</td>
<td>(0)</td>
<td>(16)^^</td>
</tr>
<tr>
<td>Remaining sample</td>
<td>212 100</td>
<td>228 100</td>
<td>211 100</td>
</tr>
<tr>
<td>Successful interviews</td>
<td>192 90.57</td>
<td>197 86.40</td>
<td>198 93.84</td>
</tr>
<tr>
<td>Refusal</td>
<td>3 1.42</td>
<td>16 7.02</td>
<td>0 0.00</td>
</tr>
<tr>
<td>No one meets eligible criteria</td>
<td>1 0.47</td>
<td>0 0.00</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Not available after 3 visits^10</td>
<td>13 6.13</td>
<td>10 4.39</td>
<td>11 5.21</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>1 0.47</td>
<td>0 0.00</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Non-Malaysian</td>
<td>1 0.47</td>
<td>0 0.00</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Other outcomes</td>
<td>1 0.47</td>
<td>5 2.19</td>
<td>2 0.95</td>
</tr>
</tbody>
</table>

^ One of the maps consists of a guarded apartment. Interviewers had no access to the apartment
^^One of the maps was a aborigines settlement. Interviewers were not able to conduct interview due to language barrier

^10 Interviewer must record at least 3 attempts in total before abandoning address. At least one visit must be an evening and one at a weekend.
8.5 The Student Survey

A total of 285 questionnaires were distributed in-class, 246 questionnaires were returned between January 2007 and May 2007, achieving a response rate of 86.32%. Where students agreed to take part in the post-course survey, the survey was administered again in May 2007 or at the end of August/early September depending on whether the Introductory Psychology course was introduced as a 1-semester or 2-semester course. Among the 246 students, eighty-three students completed the post-course survey. The remaining students had either withdrawn from the course (during the add/drop period), were absent on the day when the post-course survey was conducted, or not interested in taking part in the post-course survey. Details are shown in Table 8.2 and 8.3.

Table 8.2
Outcome of The Survey (Student Sample)

<table>
<thead>
<tr>
<th></th>
<th>Public University</th>
<th>Private University/College</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Questionnaire distributed</td>
<td>150 (100.0)</td>
<td>135 (100.0)</td>
<td>285 (100.0)</td>
</tr>
<tr>
<td>Completed questionnaire</td>
<td>116 (77.3)</td>
<td>130 (96.3)</td>
<td>246 (86.32)</td>
</tr>
<tr>
<td>Incomplete questionnaire</td>
<td>3 (2.0)</td>
<td>2 (1.5)</td>
<td>5 (1.75)</td>
</tr>
<tr>
<td>Refusal</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.00)</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.00)</td>
</tr>
<tr>
<td>Non-Malaysian</td>
<td>16 (10.7)</td>
<td>3 (2.2)</td>
<td>19 (6.67)</td>
</tr>
<tr>
<td>Not interested</td>
<td>15 (10.0)</td>
<td>0 (0.0)</td>
<td>15 (5.26)</td>
</tr>
</tbody>
</table>
Table 8.3 Outcome of The Post-Course Survey (Student Sample)

<table>
<thead>
<tr>
<th></th>
<th>Public University</th>
<th>Private University/College</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( N ) (%)</td>
<td>( N ) (%)</td>
<td>( N ) (%)</td>
</tr>
<tr>
<td>Eligible students*</td>
<td>116</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Completed questionnaire</td>
<td>23 19.8</td>
<td>60 46.2</td>
<td>83 33.73</td>
</tr>
<tr>
<td>Incomplete questionnaire</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Not interested/ withdrawn from the course</td>
<td>93 80.2</td>
<td>70 53.8</td>
<td>163 66.27</td>
</tr>
</tbody>
</table>

*They refer to students who are Malaysians, have no prior formal training in psychology, have never taken any psychology course, and took part in the survey administered at the beginning of the semester.

8.6 Chapter Summary

The adoption of the personal interview was finalized for the household survey after weighing its advantages and disadvantages. A stratified multi-stage sample design was used with an attempt to reach a representative sample. A group administered questionnaire was used for the student group. At the time of the research, seven public and private colleges/ universities offered psychology as a degree at the undergraduate level, while only five institutions agreed to participate in the survey. All students enrolled in the Introductory Psychology course were invited to take part in this study; 83 students completed a post-course survey.
CHAPTER IX - RESULTS

9.1 Introduction

This chapter presents the findings of the two surveys: the household survey and the students’ survey. The chapter is divided into three major sections.

Section 1 begins with the sample profile in which respondents’ demographic characteristics (sex, age, ethnic group, religious beliefs, and level of education) are presented. Following that, descriptive responses, i.e. respondents’ level of knowledge and attitude towards psychology and mental health were presented. Descriptive statistics were depicted using absolute numbers, simple percentages, range, and measures of central tendency as appropriate. This section will end with the analysis of the effect of the independent (predictor) variable, i.e. demographic factors and past experiences on the dependent (criterion) variables of knowledge and attitude towards psychology and mental health. ANOVA was used to analyze the difference between the groups. If more than two groups were compared, Scheffe’s Test was performed to analyze the differences among the means. Scheffe’s Test was used because it is more conservative with unequal sample sizes.

The relationships between knowledge and attitude were determined using Pearson's correlation coefficient. Logistic regression analyses were also performed to determine which factors were more important as predictors of the respondents’ knowledge, attitude and tendency to seek psychological services. All hypothesis tests were two-tailed with a type 1 error rate fixed at 5%.
Section 2 presents findings from the student surveys. This section begins with students’ profile, i.e. sex, age, ethnicity, religious belief, major declared, number of psychology courses taken before taking part in the survey. Students’ responses were then examined. For students who have also taken part in the longitudinal study, findings from both pre-test (prior to introductory psychology course) and post-test (upon completion of the introductory psychology course) were also be reported and examined. A paired-sample t-test was used to determine if the level of knowledge improved after attending the introductory psychology course.

In section 3, responses from the general public were compared to determine if students who are currently attending psychology courses possess better understanding of psychology than the general public who have no prior training in psychology.
9.2 The Household Survey

This section describes the demographic characteristics, i.e. sex, age, ethnicity, religion and level of education of the respondents. Respondents’ prior exposure to psychology and mental health issues were also explored. Lastly, respondents were also asked to rate how familiar they are with what a psychologist does, and what academic qualification does a psychologist possesses in their opinion.

9.2.1 Sample Profile

Sex of the Respondents

As reported in Chapter 8, a total of 587 respondents (Response rate = 90.17%) were involved in the survey, of which 321 (54.70%) were male and 266 (45.0%) were female.

Table 9.2.1

Sex and Age of Respondents in the Household Survey

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>321</td>
<td>54.7</td>
</tr>
<tr>
<td>Female</td>
<td>266</td>
<td>45.3</td>
</tr>
<tr>
<td>Total</td>
<td>587</td>
<td>100.0</td>
</tr>
</tbody>
</table>
As can be seen from Figure 9.2.1, the largest group of respondents was those aged from 18 to 25. Thirty four percent of the respondents fell into this age category. The second largest group was made up of those aged between 26 and 35 (27%); followed by 122 or 21.0% of the respondents aged between 36 and 45. These data indicate that the mean age of the respondents in this study was 33.9 years ($SD=12.13$), much older than the population mean age (Mean=26.6)$^{11}$. No significant age difference was found between male and female respondent ($t(585)=1.436$, $p=0.151$).

$^{11}$ Population mean age is based on Population and Housing Census Malaysia 2000, Department of Statistics Malaysia (2001).
Figure 9.2.1

Age of Respondents in the Household Survey (N=587)
Ethnic Background and Religion

It was thought that religious beliefs and ethnic background have a bearing on people’s values and attitude. As shown in Figure 9.2.2, the majority of the respondents were Malays (70.9%), 118 (20.1%) were Chinese and 51 (8.7%) were Indians. As required by Malaysian law and defined in the Constitution of Malaysia, a Malay must practice Islam. Hence a large majority of the respondents from this sample were Muslims (71.2%), 53 (9.0%) respondents were Buddhists (see Figure 9.2.3). Forty-three (7.3%) respondents claimed to have a belief in Hinduism and 65 (11.1%) respondents were Christians. Eight (1.4%) respondents expressed that they did not hold any specific religious beliefs.

![Figure 9.2.2](image)

Ethnic Background of the Respondents in the Household Survey (N=587)
Chi-square was used to compare the household survey samples and the population statistics based on Population size structure 2000 – 2010 published in the 9th Malaysian Plan 2006 – 2010 (The Economic Planning Unit, 2006, p.238). No significant difference was found between the household survey sample’s ethnic distribution and the population’s ethnic distribution ($\chi^2=8.60, p>0.01$).

Figure 9.2.3
Religions Reported by Respondents in the Household Survey (N=587)

Level of Education

An examination of respondents’ education level was thought necessary, as this factor could have an effect on the respondents’ knowledge in psychology and mental health. Among the 587 respondents, 161 (27%) had completed a post-secondary education up to the university graduate level, while 339 (57.8%) respondents had
completed secondary education. There were 81 respondents (14%) who indicated that they had only completed up to primary school education level; while only one respondent claimed that he had not received any formal education (see Figure 9.2.4). Among the 587 respondents, 24 respondents indicated that they have had some formal training in psychology, e.g. have taken a psychology module at post-secondary level.

Figure 9.2.4
Highest Education Level Obtained by Respondents in the Household Survey (N=587)

*Note. Primary = Standard 1 – 6 (7 years old – 12 years old), Secondary = Form 1 to Form 5 (13 years old – 17 years old), Tertiary = Pre-University program, undergraduate through postgraduate studies
* One participant claimed that he did not receive any formal education
**Prior Exposure to Mental Health Issues**

When asked about respondents’ prior exposure to mental health services or mentally ill individuals, less than 5% of the respondents indicated that they themselves, or someone they know has/had mental health problems. The majority of the respondents did not want to reveal their relationships with the sufferers.

Among the 29 respondents (or someone they know of) who have had mental health problems, 7 respondents sought help from psychiatrists, only one respondent have sought help from psychologist for stress management. Eighteen respondents indicated that they have seen a doctor for health issues inclusive of sleeping difficulties and depression, while others indicated that they had consulted counsellors for stress related issues and marital problem. A majority of the respondents did not want to discuss why they/ someone they know sought psychological services.

Among the 558 respondents who responded “no” to both questions stated above, 370 (64.2%) respondents indicated that they have no reason to seek help. When respondents were asked to consider barriers that would stop someone/ themselves from seeking help from mental health professionals, ‘do not know where to seek help’ was mentioned most often (13%), followed by not wanting other people to know that they are seeking help from mental health professionals (13%). Figure 9.2.5 summarizes the responses from 530 respondents who were willing to discuss the issue with the interviewers. Most respondents mentioned more than one reason for not seeking help.
Figure 9.2.5

Reasons for Not Seeking Help from Mental Health Professionals Reported by Respondents in the Household Survey

*Note: Multiple responses recorded*

_Familiarity with the Role of Psychologist_

When asked about how familiar they are with the role of a psychologist, 167 (28.4%) indicated that they were not at all familiar with the profession; 306 (52.1%) indicated that they were not very familiar; 90 (15.3%) indicated that they were somewhat familiar; and very few respondents, 21 (3.6%) mentioned that they were very familiar. Three respondents could not understand the word “psychologist”. Figure 9.2.6 shows the responses from 584 respondents.
Figure 9.2.6

Familiarity with the Role of a Psychologist reported by Respondents in the Household Survey (N=587)
Subsequently, respondents were also asked if they understand how a psychologist is trained. As shown in Figure 9.2.7, when asked about the minimum academic qualification they believed a psychologist has, 84 (14.3%) respondents indicated that taking a few psychology courses will qualify someone as a psychologist, 63 (10.7%) indicated that an undergraduate degree in psychology is required. Sixty-nine (11.8%) mentioned a Masters degree in psychology, 34 (5.8%) believed that a psychologist holds a Bachelor degree in Medicine (MBBS), 58 (9.9%) believed that a psychologist would have a Doctorate in psychology, and 279 (47.5%) expressed that they do not know what qualifies a psychologist.

![Figure 9.2.7](image)

Perceived Minimum Academic Qualifications required to Becoming a Psychologist Reported by Respondents in the Household Survey (N=587)
9.2.2 Descriptive Presentation of the Knowledge Level in Psychology and Mental Health

Respondents were presented with 18 items related to psychology and mental health. Eight items belong to the psychology subscale, while 10 items belong to the mental health subscale. Respondents were requested to answer “true”, “false” or “I don’t know” when the questions were asked. Each correctly answered item was given 1 mark, up to a maximum of 18 marks. The mean of the correct responses from participants was 4.92 items, ranging from 0.0 – 16.0 items \((SD=2.84)\), in which 87.2% of the respondents scored less than 50% of the total score.

Further analysis was performed to examine individual responses. On four of the 18 items, there were over 55% correct responses, while on six items, the correct responses have merely reached 20%. The majority of the respondents responded “don’t know” when the items were presented to them. The items with more than 50% of “don’t know” responses are item 2, item 3, item 4, item 7, item 11, item 17 and item 18. Table 9.2.2 shows the responses to each item in the questionnaire.
Table 9.2.2

Responses to the 18 Items on the Psychology and Mental Health Questionnaire (PMHQ-I) (N=587)

<table>
<thead>
<tr>
<th>Item</th>
<th>T N (%)</th>
<th>F N (%)</th>
<th>DK N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychology is a science.</td>
<td>390 (66.4)</td>
<td>53 (9.0)</td>
<td>144 (24.5)</td>
</tr>
<tr>
<td>2. All psychology students study hypnosis in class.</td>
<td>133 (22.7)</td>
<td>84 (14.3)</td>
<td>370 (63.0)</td>
</tr>
<tr>
<td>3. Hypnosis does not work on everyone.</td>
<td>138 (23.5)</td>
<td>78 (13.3)</td>
<td>371 (63.2)</td>
</tr>
<tr>
<td>4. Psychologists study behaviour and the mind, but not biology.</td>
<td>212 (36.1)</td>
<td>85 (14.5)</td>
<td>290 (49.4)</td>
</tr>
<tr>
<td>5. Only a small minority of people with psychological problems seek help from mental health professionals today.</td>
<td>410 (69.8)</td>
<td>44 (7.5)</td>
<td>133 (22.7)</td>
</tr>
<tr>
<td>6. The titles “psychologist” and “Psychiatrist” refer to the same profession.</td>
<td>258 (44.0)</td>
<td>85 (14.5)</td>
<td>244 (41.6)</td>
</tr>
<tr>
<td>7. Eating disorders (e.g. anorexia nervosa, bulimia nervosa) are psychological disorders.</td>
<td>164 (27.9)</td>
<td>93 (15.8)</td>
<td>330 (56.2)</td>
</tr>
<tr>
<td>8. All psychologists work with people with mental illness.</td>
<td>244 (41.6)</td>
<td>120 (20.4)</td>
<td>223 (38.0)</td>
</tr>
<tr>
<td>9. Psychologists can help an organization in modifying the work environment to maximize productivity and morale of staff.</td>
<td>238 (40.5)</td>
<td>62 (10.6)</td>
<td>287 (48.9)</td>
</tr>
<tr>
<td>10. Psychiatric disorders are true medical illnesses like heart disease and diabetes.</td>
<td>174 (29.6)</td>
<td>146 (24.9)</td>
<td>267 (45.5)</td>
</tr>
<tr>
<td>11. Mental health is defined as the absence of mental disorders.</td>
<td>218 (37.1)</td>
<td>90 (15.3)</td>
<td>279 (47.5)</td>
</tr>
<tr>
<td>12. During psychotherapy, clients usually lie on a couch and talk about whatever comes to mind.</td>
<td>308 (52.5)</td>
<td>47 (8.0)</td>
<td>232 (39.5)</td>
</tr>
<tr>
<td>13. Psychologists read people’s mind.</td>
<td>275 (46.8)</td>
<td>100 (17.0)</td>
<td>212 (36.1)</td>
</tr>
<tr>
<td>14. Psychological disorders like depression and anxiety disorders do not affect children.</td>
<td>167 (28.4)</td>
<td>246 (41.9)</td>
<td>174 (29.6)</td>
</tr>
</tbody>
</table>

Note. The values represent the number of responses for T(True), F(False) and DK (Don’t Know) of each item. Correct answers were highlighted in Bold.
Table 9.2.2 Continued

<table>
<thead>
<tr>
<th></th>
<th>T (%)</th>
<th>F (%)</th>
<th>DK (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Stress can lead to illness, e.g., cancer, hypertension, mental disorders.</td>
<td>396 (67.5)</td>
<td>39 (6.6)</td>
<td>152 (25.9)</td>
</tr>
<tr>
<td>16. A person who has recovered from mental illness will not be able to return to work.</td>
<td>116 (19.8)</td>
<td>329 (56.0)</td>
<td>142 (24.2)</td>
</tr>
<tr>
<td>17. A person with schizophrenia is a person with “split personality.”</td>
<td>125 (21.3)</td>
<td>39 (6.6)</td>
<td>423 (72.1)</td>
</tr>
<tr>
<td>18. Psychiatrists primarily use psychoanalysis as a basis of therapy.</td>
<td>136 (23.2)</td>
<td>20 (3.4)</td>
<td>431 (73.4)</td>
</tr>
</tbody>
</table>

Note. The values represent the number of response for T(True), F(False) and DK (Don’t Know) of each item. Correct answers were highlighted in Bold.

Figure 9.2.8 presents a list of information sources from which respondents learned about psychology and mental health. Respondents were requested to indicate as best as they could remember where they learned the information from for each item presented in the questionnaire. As predicted, the majority of the respondents could not specify or remember the actual source of information. Moreover, many respondents have responded “don’t know” to many of the items. Hence, the most commonly reported source of information is reported in this section.

Figure 9.2.9 summarizes the popular resources where respondents obtained information about psychology and mental health. It can be said that most respondents obtained information about psychology and mental health from reading materials followed by the mass media. For respondents who have read about psychology and mental health from reading materials, newspapers was the primary source (78%), followed by health magazines (21%). Among the media, television programmes (58%) and movies (40%) were the most popular, followed by radio programmes (2%). Approximately 10% of the respondents indicated that they have learned about
psychology and mental health through personal experience, e.g. through contact with individuals having mental health problems, or through other people who have made similar contacts. Among other sources, respondents have also learned related information from health professionals (e.g. general practitioners) or from schools. Interestingly, the internet was expected to be one of the more popular sources of information especially when the mean age of the sample was rather young. It was however among the few resources mentioned the least by the respondents.
Figure 9.2.8

Information Sources by Item reported by respondents in the Household Survey (Total Responses per Item = 587)
Figure 9.2.9

Information Sources Most Frequently Mentioned by Respondents (Total Respondents = 587)

*Note.* Multiple responses recorded. Percentages represent proportions of responses obtained.
9.2.3 Descriptive Presentation of the Attitude Towards Psychology and Mental Health

The second part of the questionnaire covered issues relating to people’s attitudes towards psychology and mental health problems. A total of 587 respondents completed this section of the questionnaire.

This part of the questionnaire consists of 10 items. On 8 out of the 10 items, the number of respondents who agree or strongly agree to the statement was about equal to the number of respondents who disagree or strongly disagree to the statement. As shown in Table 9.2.3, the difference between the number of respondents from the two categories (agree/strongly agree and disagree/strongly disagree) was less than 10% in most cases. However, notably, close to 77% (n=449) of the respondents disagreed or strongly disagreed that anyone could suffer from mental health problems, 63.2% (n=371) of the respondents felt difficulty when talking to people who have mental health problems, and 62.5% (n=366) of the respondents indicated that they would not want people to know if they are suffering from mental health problems.

More than half of the respondents (n=351, 59.8%) from the sample disagreed that individuals with mental health should be given the same rights, and the sufferers are largely to be blamed for their own condition (n=358, 61%), hence, it is not surprising that more than half of the sample did not think that people are sympathetic towards individuals with mental health problems (n=266, 54.7%). Approximately half the sample (n=303, 51.6%) believed that people with mental health problems are
violent and dangerous, and 51.0% of the respondents (n=299) believed that people with mental health problems would recover.

Two items in the attitude scale were related to attitudes toward psychology. These two items examined whether the general public believes that psychology is simply common sense, and the stigma associated with the profession. On these items, half of the participants from the sample believed that psychology is simply common sense (n=290, 50.4%), while slightly more than half of the sample believed that a person who has visited a psychologist’s office is a person with a mental disorder (n=309, 52.6%). Table 9.2.4 summarizes the choice of response by 587 respondents on attitude towards psychology and mental health issues.
<table>
<thead>
<tr>
<th></th>
<th>Attitude towards psychology and mental health issues – percentage breakdown by choice of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Psychology is simply common sense</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>If I suffer from mental health problems, I wouldn’t want people to know</td>
</tr>
<tr>
<td>3.</td>
<td>A person who has visited a psychologist’s office is a person with mental disorder</td>
</tr>
<tr>
<td>4.</td>
<td>Anyone can suffer from mental health problems</td>
</tr>
<tr>
<td>5.</td>
<td>I would find it hard to talk to someone with mental health problems</td>
</tr>
<tr>
<td>6.</td>
<td>People are generally caring and sympathetic to people with mental health problems</td>
</tr>
<tr>
<td>7.</td>
<td>People with mental health problems are often dangerous/violent</td>
</tr>
<tr>
<td>8.</td>
<td>The majority of people with mental health problems recover</td>
</tr>
<tr>
<td>9.</td>
<td>People with mental health problems should have the same rights as anyone else</td>
</tr>
<tr>
<td>10.</td>
<td>People with mental health problems are largely to blame for their own condition</td>
</tr>
</tbody>
</table>

Note. Item 1, 2, 3, 5, 7, 10 were scored with 4 points for strong disagreement, through to 1 point for strong agreement. Item 4, 6, 8, 9 were scored in the reverse.
The series of statements was used in an aggregate analysis to develop a classification of overall views on mental health problems. A scoring system was used to reflect the positive/negative balance of each attitude statement – those in italics in Table 9.2.4 were scored with four points for strong disagreement, through to only one point for strong agreement (e.g. “If I suffer from mental health problems, I wouldn’t want people to know” and “People with mental health problems are often dangerous/violent”). The four remaining statements were scored in the reverse (e.g. “The majority of people with mental health problems recover”). The overall scores therefore varied from a theoretical minimum of 10 points (least tolerant) to a maximum of 40 points (most tolerant). In the survey, the lowest score was 10 and the highest was 32 – a clear majority of people scored between 20 and 28 points on the scale. Table 9.2.4 and Figure 9.2.10 show the score distribution for the attitude scale based on 587 responses. Figure 9.2.11 and 9.2.12 show score distribution on attitude towards mental health and psychology respectively.
Table 9.2.4

Score Distribution for the Attitude Score Obtained by Respondents in the Household Survey (N=587)

<table>
<thead>
<tr>
<th>Total Score</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>1.0</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>3.4</td>
</tr>
<tr>
<td>20</td>
<td>42</td>
<td>7.2</td>
</tr>
<tr>
<td>21</td>
<td>31</td>
<td>5.3</td>
</tr>
<tr>
<td>22</td>
<td>56</td>
<td>9.5</td>
</tr>
<tr>
<td>23</td>
<td>100</td>
<td>17.0</td>
</tr>
<tr>
<td>24</td>
<td>95</td>
<td>16.2</td>
</tr>
<tr>
<td>25</td>
<td>91</td>
<td>15.5</td>
</tr>
<tr>
<td>26</td>
<td>68</td>
<td>11.6</td>
</tr>
<tr>
<td>27</td>
<td>30</td>
<td>5.1</td>
</tr>
<tr>
<td>28</td>
<td>13</td>
<td>2.2</td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>1.4</td>
</tr>
<tr>
<td>30</td>
<td>5</td>
<td>0.9</td>
</tr>
<tr>
<td>31</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>587</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Figure 9.2.10

Score Distribution for the Overall Attitude Scale for the Household Survey (N=587)
Figure 9.2.11

Score Distribution for Attitude Towards Mental Health Issues for the Household Survey (N=587)
Figure 9.2.12

Score Distribution for Attitude Towards Mental Health Issues for the Household Survey (N=587)
9.2.4 Descriptive Presentation of the Responses on Tendency to Seek Help

The final part of the questionnaire consists of an item exploring respondents’ tendency to seek help from mental health professionals when necessary. Respondents were asked if they would consider seeking help, and if not, what are the barriers that could be stopping them from doing so.

Among the 587 respondents who have responded to this item, 427 (72.7%) of the respondents have indicated that they would seek help when necessary. When the 160 (27.3%) respondents were asked to elaborate on the reasons for not seeking help, 114 (19.4%) respondents expressed that they did not know where to seek help; 118 (20.1%) respondents did not want other people to know of their condition. Other factors include financial issue and religious beliefs. Multiple responses were recorded. Notably, among the 427 respondents who indicated that they would seek help, 25 respondents (6%) have also mentioned financial issue as one of their concerns. They would prefer not to let other people know (n=13, 3%) and wish to receive more information on where to seek help (n=25, 6%).
9.2.5 Testing the Hypotheses

In general, respondents scored significantly better on items related to mental health ($M=32.6\%, SD=18.52$) than items related to psychology ($M=26.4\%, SD=18.55$), $t(1172)=5.746$, $p<0.001$. The following section analyses the effect of the independent (predictor) variables on the dependent (criterion) variable attitude towards psychology and mental health. Independent (predictor) variables include sex, age, ethnicity, religious beliefs, and education level. Respondents’ prior exposure to psychology and mental health issues are explored, and the hypotheses are also tested.

*Demographic Characteristics with Knowledge and Attitude Score*

*Sex with Knowledge And Attitude*

No significant difference was found between the sexes in their knowledge level as well as in their attitude towards psychology ($t(585)=0.631$, $p=0.528$) and mental health ($t(585)=0.612$, $p=0.541$) (Table 9.2.5).
Table 9.2.5

Relationship Between Sex With Knowledge Level and Attitude (N=587)

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Mean (SD)</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Total Score</td>
<td>Male</td>
<td>5.44 (2.83)</td>
<td>0.631</td>
<td>585</td>
<td>0.528</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5.29 (2.87)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Male</td>
<td>2.15 (1.47)</td>
<td>0.665</td>
<td>585</td>
<td>0.506</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>2.07 (1.51)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Male</td>
<td>3.29 (1.84)</td>
<td>0.438</td>
<td>585</td>
<td>0.662</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.22 (1.87)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Total Score</td>
<td>Male</td>
<td>23.39 (3.06)</td>
<td>0.612</td>
<td>585</td>
<td>0.541</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23.54 (2.77)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Male</td>
<td>4.92 (1.00)</td>
<td>0.077</td>
<td>585</td>
<td>0.939</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.93 (1.03)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Male</td>
<td>18.47 (2.54)</td>
<td>0.704</td>
<td>585</td>
<td>0.482</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>18.61 (2.31)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Age with Knowledge and Attitude Score

Among the 587 respondents, the respondents between 18 and 25 years of age attained the highest scores in overall mean knowledge score (Table 9.2.6). However, when the knowledge score was broken down to knowledge score in psychology, knowledge score in mental health, the 18 - 25 age group was ranked the top only for knowledge in psychology. Respondents between 26 and 45 seemed to have better knowledge in mental health. Table 9.2.6 summarizes the mean scores and standard deviations for the knowledge scales by age group.
### Table 9.2.6

Mean Scores and Standard Deviations for the Knowledge Scales by Age Group (N=587)

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Total Score (Mean, SD)</th>
<th>Psychology (Mean, SD)</th>
<th>Mental Health (Mean, SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>197</td>
<td>5.51 (2.90)</td>
<td>2.36 (1.49)</td>
<td>3.15 (1.85)</td>
</tr>
<tr>
<td>26 – 35</td>
<td>158</td>
<td>5.41 (2.84)</td>
<td>2.15 (1.52)</td>
<td>3.25 (1.83)</td>
</tr>
<tr>
<td>36 – 45</td>
<td>122</td>
<td>5.24 (2.88)</td>
<td>1.99 (1.57)</td>
<td>3.25 (1.84)</td>
</tr>
<tr>
<td>46 – 55</td>
<td>82</td>
<td>5.55 (2.71)</td>
<td>1.79 (1.73)</td>
<td>3.15 (1.93)</td>
</tr>
<tr>
<td>56 and above</td>
<td>28</td>
<td>4.32 (2.78)</td>
<td>1.61 (1.42)</td>
<td>2.71 (1.85)</td>
</tr>
</tbody>
</table>

A One-Way ANOVA was performed to determine if there is any difference in the level of knowledge among respondents of different age groups. Results showed that the scores of each group were not significantly different for the overall knowledge level ($F(4, 582) = 1.226, p=0.30$) (Table 9.2.7). Differences within subscales were also examined. Results showed that the age groups were not different in the mental health knowledge level ($F(4, 582) = 2.265, p = 0.061$), but were different in the knowledge level in psychology ($F(4, 582) = 3.42, p=0.009$). Post-hoc tests were conducted to further explore the differences among the age groups on knowledge in relation to psychology. Respondents below 25 years old scored significantly higher than respondents aged between 46 and 55 ($p=0.037$).
Table 9.2.7

One-Way ANOVA of The Knowledge Scales by Age Groups (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>39.734</td>
<td>4</td>
<td>9.934</td>
<td>1.226</td>
<td>.299</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4715.813</td>
<td>582</td>
<td>8.103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4755.547</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>29.668</td>
<td>4</td>
<td>7.417</td>
<td>3.423</td>
<td>.009</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1260.912</td>
<td>582</td>
<td>2.167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1290.579</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>30.834</td>
<td>4</td>
<td>7.708</td>
<td>2.265</td>
<td>.061</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1980.764</td>
<td>582</td>
<td>3.403</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2011.598</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In terms of Attitude, a One-way ANOVA was performed to determine if there were any differences in attitudes among the age groups. As shown in Table 9.2.9, no significant differences between the various groups were found in their total attitude score ($F (4, 582) = 1.96, p = 0.10$) and attitude towards mental health ($F (4, 582) = 1.30, p = 0.271$), but in attitude towards psychology ($F (4, 582) = 2.93, p = 0.020$). Post-hoc comparisons indicated that respondents aged below 25 had a more positive attitude than respondents aged between 36 and 45 ($p=0.032$). Respondents of the 36 – 45 years old group had the lowest mean score on the total attitude score as well as the psychology subscale in comparison with others (Table 9.2.8). The other age groups did not seem to have differed from each other in terms of attitude towards psychology.
Table 9.2.8
Mean Scores and Standard Deviations for the Attitude Scales by Age Group (N=587)

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Total Score</th>
<th>Psychology</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤25</td>
<td>197</td>
<td>23.88 (2.94)</td>
<td>5.07 (1.05)</td>
<td>18.82 (2.49)</td>
</tr>
<tr>
<td>26 – 35</td>
<td>158</td>
<td>23.32 (3.10)</td>
<td>4.92 (0.97)</td>
<td>18.40 (2.55)</td>
</tr>
<tr>
<td>36 – 45</td>
<td>122</td>
<td>22.99 (2.62)</td>
<td>4.69 (0.94)</td>
<td>18.30 (2.22)</td>
</tr>
<tr>
<td>46 – 55</td>
<td>82</td>
<td>23.49 (2.67)</td>
<td>4.88 (0.94)</td>
<td>18.61 (2.28)</td>
</tr>
<tr>
<td>56 and above</td>
<td>28</td>
<td>23.21 (2.93)</td>
<td>5.11 (1.29)</td>
<td>18.11 (2.78)</td>
</tr>
</tbody>
</table>

Table 9.2.9
One–way ANOVA of the Attitude Scales by Age Groups (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td>Between Groups</td>
<td>66.763</td>
<td>4</td>
<td>16.691</td>
<td>1.957</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>4963.047</td>
<td>582</td>
<td>8.528</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5029.809</td>
<td>586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Between Groups</td>
<td>11.848</td>
<td>4</td>
<td>2.962</td>
<td>2.928</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>588.854</td>
<td>582</td>
<td>1.012</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>600.702</td>
<td>586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Between Groups</td>
<td>30.764</td>
<td>4</td>
<td>7.691</td>
<td>1.295</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3455.271</td>
<td>582</td>
<td>5.937</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3486.034</td>
<td>586</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ethnic Background with Knowledge and Attitude Score

A one-way ANOVA was carried out to compare the knowledge level in psychology and mental health among various ethnic groups (Table 9.2.11). This factor is thought to be important for a multi-cultural country like Malaysia, as people from different ethnic backgrounds may understand psychology and mental health
differently. There was a significant difference among the ethnic groups in terms of knowledge score \( F (3, 583) = 7.41, p<0.001 \). Further analysis also indicated significant differences among different ethnic groups on psychological knowledge \( F (3, 583) = 4.28, p=0.005 \) and mental health knowledge \( F (3, 583) = 6.31, p<0.001 \).

Mean scores for the knowledge scales by ethnic group are shown in Table 9.2.10 and Figure 9.2.13.

Table 9.2.10

Mean scores and Standard Deviations for the Knowledge Scales by Ethnicity (N=587)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Total Score Mean (SD)</th>
<th>Psychology Mean (SD)</th>
<th>Mental Health Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malay</td>
<td>416</td>
<td>5.11 (2.62)</td>
<td>2.00 (1.44)</td>
<td>3.11 (1.68)</td>
</tr>
<tr>
<td>Chinese</td>
<td>118</td>
<td>6.45 (3.28)</td>
<td>2.54 (1.63)</td>
<td>3.91 (2.10)</td>
</tr>
<tr>
<td>Indian</td>
<td>51</td>
<td>5.04 (3.02)</td>
<td>2.02 (1.32)</td>
<td>3.02 (2.24)</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>6.50 (3.54)</td>
<td>6.50 (3.54)</td>
<td>2.50 (2.12)</td>
</tr>
</tbody>
</table>

Note. The “Others” group consists of only 2 respondents.
Figure 9.2.13

Mean Score for the Knowledge Overall and Subscales by Ethnicity (N=587)
Table 9.2.11

One–way ANOVA of the Knowledge Scales by Ethnicity (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>174.584</td>
<td>3</td>
<td>58.195</td>
<td>7.406</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4580.963</td>
<td>583</td>
<td>7.858</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4755.547</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>27.811</td>
<td>3</td>
<td>9.270</td>
<td>4.280</td>
<td>.005</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1262.769</td>
<td>583</td>
<td>2.166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1290.579</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>63.297</td>
<td>3</td>
<td>21.099</td>
<td>6.314</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1948.301</td>
<td>583</td>
<td>3.342</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2011.598</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-hoc comparisons based on Scheffe’s test revealed significant differences between Malay and Chinese ($p=0.001$) on total knowledge score, knowledge level in psychology ($p=0.006$) and knowledge in mental health ($p=0.040$). The Chinese also scored significantly higher than Indians on the mental health scale ($p=0.030$), but there was no significant difference between Malays and Indians. The Chinese had the highest mean knowledge score among the 3 ethnic groups (not including the ‘others’ group), reflecting better knowledge level in psychology and mental health.

A one-way ANOVA compared the various ethnic groups and their attitudes towards psychology and mental health. As shown in Table 9.2.13, significant differences emerged between the various ethnic groups with respect to their attitude scores ($F(3,383)= 8.87$, $p<0.001$). Post-hoc comparisons were performed to further examine differences within the subscales among the various ethnic groups. Results based on Scheffe’s Test indicated significant differences between Malays and Chinese.
(\(p=0.012\)) and Indians (\(p<0.001\)) on the overall scores. The Malays also held more positive attitudes than the Indians on mental health issues (\(p=0.005\)). The Malays had the highest mean attitudinal scores (Table 9.2.12) reflecting that the Malays displayed more positive attitude in general, particularly towards mental health. Figure 9.2.14 shows the mean score of the attitude overall, and subscales by ethnicity.

Table 9.2.12

Mean Scores and Standard Deviations for the Attitude Scales by Ethnicity (N=587)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Total Score (Mean SD)</th>
<th>Psychology (Mean SD)</th>
<th>Mental Health (Mean SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malay</td>
<td>416</td>
<td>23.82 (2.74)</td>
<td>4.97 (0.97)</td>
<td>18.85 (2.29)</td>
</tr>
<tr>
<td>Chinese</td>
<td>118</td>
<td>22.83 (2.77)</td>
<td>4.99 (0.92)</td>
<td>17.84 (2.42)</td>
</tr>
<tr>
<td>Indian</td>
<td>51</td>
<td>21.94 (3.89)</td>
<td>4.37 (1.34)</td>
<td>17.57 (2.99)</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>24.00 (7.07)</td>
<td>6.00 (1.41)</td>
<td>18.00 (5.66)</td>
</tr>
</tbody>
</table>
Figure 9.2.14

Mean Score of the Attitude Overall and Subscales by Ethnicity (N=587)
Table 9.2.13

One–way ANOVA of the Attitude Scales by Ethnicity (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>219.539</td>
<td>3</td>
<td>73.180</td>
<td>8.869</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4810.270</td>
<td>583</td>
<td>8.251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5029.809</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>19.195</td>
<td>3</td>
<td>6.398</td>
<td>6.415</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>581.507</td>
<td>583</td>
<td>.997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>600.702</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>147.528</td>
<td>3</td>
<td>49.176</td>
<td>8.588</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3338.506</td>
<td>583</td>
<td>5.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3486.034</td>
<td>586</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The “Others” group only consist of two respondents.

Religion with Knowledge and Attitude Score

One-way ANOVA was performed to compare the various types of religious affiliation of the respondents and their knowledge in psychology and mental health. As shown in Table 9.2.15, there were significant differences between the various types of religion with respect to knowledge level \((F(4, 582)=6.97, p<0.001)\), including knowledge in psychology \((F(4, 582)=3.96, p=0.004)\) and mental health \((F(4, 582)=5.97, p<0.001)\). Post-hoc comparisons based on Scheffe’s Test showed Buddhists scored significantly higher than Muslims \((p<0.001)\) and Hindus \((p=0.004)\) overall, and \(p=0.029\) and \(p=0.030\) respectively on items related to psychology. Similarly, Buddhists also had significantly better knowledge on items related to mental health than Muslims \((p=0.001)\) and Hindus \((p=0.009)\). As shown in Table 9.2.14 and Figure 9.2.15, Buddhists had the highest mean scores on all items, in other
words, had better knowledge of psychology and mental health, followed by Christians, Muslims and Hindus.

Table 9.2.14

Mean scores and Standard Deviations for the Knowledge Scales by Religion (N=587)

<table>
<thead>
<tr>
<th>Religion</th>
<th>N</th>
<th>Total Score</th>
<th>Psychology</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islam</td>
<td>418</td>
<td>5.12 (2.62)</td>
<td>2.01 (1.44)</td>
<td>3.11 (1.68)</td>
</tr>
<tr>
<td>Buddhism</td>
<td>53</td>
<td>6.96 (2.93)</td>
<td>2.72 (1.60)</td>
<td>4.25 (1.81)</td>
</tr>
<tr>
<td>Hindu</td>
<td>43</td>
<td>4.70 (3.07)</td>
<td>1.84 (1.31)</td>
<td>2.86 (2.36)</td>
</tr>
<tr>
<td>Christianity</td>
<td>65</td>
<td>6.06 (3.46)</td>
<td>2.42 (1.65)</td>
<td>3.65 (2.23)</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>6.25 (2.76)</td>
<td>2.50 (1.20)</td>
<td>3.75 (2.12)</td>
</tr>
</tbody>
</table>
Figure 9.2.15

Mean Score of the Knowledge Overall and Subscales by Religion (N=587)
As noted in Table 9.2.17, One-Way ANOVA was performed to determine if there is any difference in the attitude level among respondents who practice different religions. Results shown that the scores of each group were significantly different for the overall attitude level ($F(4, 582) = 10.61, p<0.001$) as well as the subscales, i.e. attitude towards psychology ($F(4, 582) = 7.47, p<0.001$) and attitude towards mental health issues ($F(4, 582) = 10.86, p<0.001$). Post-hoc testing was conducted to further explore the differences among the religious groups. Results based on Scheffe’s Test indicated that the Muslims held more positive attitudes, particularly towards mental health, compared to Buddhists ($p<0.001$) and Hindus ($p=0.004$). So did the Christians compared to Buddhists ($p=0.003$) and Hindus ($p=0.042$). Table 9.2.16 and Figure 9.2.16 shows the mean scores and the standard deviations of the attitude scores by religion.
Table 9.2.16

Mean scores and Standard Deviations for the Attitude Scales by Religion (N=587)

<table>
<thead>
<tr>
<th>Religion</th>
<th>N</th>
<th>Total Score</th>
<th>Psychology</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islam</td>
<td>418</td>
<td>23.82 (2.75)</td>
<td>4.98 (0.98)</td>
<td>18.84 (2.30)</td>
</tr>
<tr>
<td>Buddhism</td>
<td>53</td>
<td>21.94 (3.05)</td>
<td>5.04 (1.07)</td>
<td>16.91 (2.65)</td>
</tr>
<tr>
<td>Hindu</td>
<td>43</td>
<td>21.53 (3.87)</td>
<td>4.19 (1.26)</td>
<td>17.35 (3.08)</td>
</tr>
<tr>
<td>Christianity</td>
<td>65</td>
<td>23.54 (2.40)</td>
<td>4.89 (0.81)</td>
<td>18.65 (1.92)</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>24.25 (2.76)</td>
<td>5.63 (0.744)</td>
<td>18.63 (2.56)</td>
</tr>
</tbody>
</table>

Table 9.2.17

One–way ANOVA of the Attitude Scales by Religion (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td>Between Groups</td>
<td>341.728</td>
<td>4</td>
<td>85.432</td>
<td>10.606</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>4688.081</td>
<td>582</td>
<td>8.055</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5029.809</td>
<td>586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Between Groups</td>
<td>29.338</td>
<td>4</td>
<td>7.335</td>
<td>7.471</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>571.364</td>
<td>582</td>
<td>.982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>600.702</td>
<td>586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Between Groups</td>
<td>242.109</td>
<td>4</td>
<td>60.527</td>
<td>10.859</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3243.925</td>
<td>582</td>
<td>5.574</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3486.034</td>
<td>586</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 9.2.16

Mean Score of the Attitude Overall and Subscales by Religion (N=587)
Table 9.2.18 and Figure 9.2.17 show that respondents with the highest education level had the highest means scores on knowledge about psychology and mental health. Results from a One-Way ANOVA indicated that the knowledge scores of each group were significantly different \( F(2, 578)=39.18, p<0.001 \) as were the subscales, i.e. attitude towards psychology \( F(2, 578)= 47.34, p<0.001 \) and attitude towards mental health issues \( F(2, 578) = 16.12, p<0.001 \) (Table 9.2.19). Post-hoc comparisons also indicated that respondents who had the highest education level had significantly better knowledge in knowledge about psychology compared to respondents who had only a primary level of education \( p<0.001 \) and secondary education level \( p<0.001 \). This can be explained by the fact that psychology is only offered in the tertiary level of education in Malaysia, so it is understandable that respondents with the highest education background may have had some exposure to psychology.

Further analysis was performed to examine if respondents with prior training in psychology (at the tertiary level) would have better knowledge of psychology compared to the other respondents. Twenty four respondents claimed that they had prior training in psychology (i.e. have taken psychology courses). Respondents who had prior training obtained significantly higher score in the knowledge scale \( F(1,564) =6.28, p=0.01 \), especially in the psychology subscale \( F(1,564)=6.19, p=0.01 \). However, these respondents did not differ from other respondents in terms of attitude towards psychology and mental health.
Table 9.2.18

Mean Scores and Standard Deviations for the Knowledge Scales by Education Level (N=587)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>N</th>
<th>Total Score Mean (SD)</th>
<th>Psychology Mean (SD)</th>
<th>Mental Health Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>81</td>
<td>3.95 (2.65)</td>
<td>1.27 (1.10)</td>
<td>2.68 (1.91)</td>
</tr>
<tr>
<td>Secondary</td>
<td>339</td>
<td>5.04 (2.67)</td>
<td>1.92 (1.38)</td>
<td>3.11 (1.82)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>161</td>
<td>6.86 (1.48)</td>
<td>2.94 (1.48)</td>
<td>3.92 (1.70)</td>
</tr>
</tbody>
</table>

*Note. Primary = Standard 1 – 6 (7 years old – 12 years old), Secondary = Form 1 to Form 5 (13 years old – 17 years old), Tertiary = Pre-University program, undergraduate through postgraduate studies*

Table 9.2.19

One–way ANOVA of the Knowledge Scales by Education Level (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares df Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>556.998 2</td>
<td>278.499</td>
<td>39.175</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4109.092 578</td>
<td>7.109</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4666.090 580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>179.093 2</td>
<td>89.547</td>
<td>47.336</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1093.409 578</td>
<td>1.892</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1272.503 580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>104.593 2</td>
<td>52.296</td>
<td>16.118</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1875.345 578</td>
<td>3.245</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1979.938 580</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 9.2.17

Mean Score of the Knowledge Overall and Subscales by Education Level (N=587)
Interestingly, although respondents with tertiary education background had better knowledge overall, this education level group attained only the second highest means score on attitude in general as well as attitude towards mental health (Table 9.2.20 and Figure 9.2.18). Respondents who had received only a primary level of education attained the highest means score on attitude in general although the differences among the three groups were not significant. On the whole, the overall scores suggest that the higher the education level of the respondents, the higher the knowledge level, however, these individuals may not necessary possess a more positive attitude. The relationship between knowledge and attitude will be examined in the later part of this section.

Table 9.2.20
Mean Scores and Standard Deviations for the Attitude Scales by Education Level (N=587)

<table>
<thead>
<tr>
<th>Education level</th>
<th>N</th>
<th>Total Score (SD)</th>
<th>Psychology (SD)</th>
<th>Mental Health (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>81</td>
<td>23.89 (2.45)</td>
<td>4.96 (0.85)</td>
<td>19.20 (2.05)</td>
</tr>
<tr>
<td>Secondary</td>
<td>339</td>
<td>23.28 (3.20)</td>
<td>4.88 (1.02)</td>
<td>18.40 (2.63)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>161</td>
<td>23.60 (2.51)</td>
<td>5.16 (1.01)</td>
<td>18.44 (2.13)</td>
</tr>
</tbody>
</table>

Note. Primary = Standard 1 – 6 (7 years old – 12 years old), Secondary = Form 1 to Form 5 (13 years old – 17 years old), Tertiary = Pre-University program, undergraduate through postgraduate studies
Table 9.2.21

One–way ANOVA of the Attitude Scales by Education Level (N=587)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>29.454</td>
<td>2</td>
<td>14.727</td>
<td>1.722</td>
<td>.180</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4942.494</td>
<td>578</td>
<td>8.551</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4971.948</td>
<td>580</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>14.225</td>
<td>2</td>
<td>7.113</td>
<td>7.139</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>575.882</td>
<td>578</td>
<td>.996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>590.107</td>
<td>580</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>42.968</td>
<td>2</td>
<td>21.484</td>
<td>3.650</td>
<td>.027</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3401.968</td>
<td>578</td>
<td>5.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3444.936</td>
<td>580</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Less than 10% of the respondents (n=29) indicated that they had some form of exposure to psychology and mental health. Some mentioned that they were once diagnosed having mental health problems, others claimed that they knew someone who had sought psychological services in the past. When these respondents were compared to others, who had no such exposure, they seemed to hold a more positive attitude, \( t(585)=2.834, \ p=0.005 \), especially towards mental health issues , \( t(585)=3.429, \ p=0.001 \).
Figure 9.2.18

Mean Score of the Attitude Overall and Subscales by Education Level (N=587)
One final demographic characteristic, residential location (urban vs. rural), was found to have a statistically significant relationship with both knowledge level and attitude towards psychology and mental health, \( t(1, 585) = 3.661, p<0.001 \), and \( t(585) = 3.181, p=0.002 \) respectively (Table 9.2.22). These results are in accordance with the literature review.

### Table 9.2.22

Residential Location (Urban vs. Rural) with Knowledge and Attitude Score (N=587)

<table>
<thead>
<tr>
<th></th>
<th>Urban (N=389)</th>
<th>Rural (N=198)</th>
<th>( t )</th>
<th>( df )</th>
<th>( p )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>5.68 (2.94)</td>
<td>4.78 (2.56)</td>
<td>13.40</td>
<td>585</td>
<td>0.001</td>
</tr>
<tr>
<td>Psychology</td>
<td>2.21 (1.48)</td>
<td>1.91 (1.47)</td>
<td>5.37</td>
<td>585</td>
<td>0.035</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3.47 (1.98)</td>
<td>2.86 (1.50)</td>
<td>14.15</td>
<td>585</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

### Table 9.2.22 Continued

<table>
<thead>
<tr>
<th></th>
<th>Urban (N=389)</th>
<th>Rural (N=198)</th>
<th>( t )</th>
<th>( df )</th>
<th>( p )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>23.19 (2.91)</td>
<td>23.99 (2.90)</td>
<td>10.12</td>
<td>585</td>
<td>0.002</td>
</tr>
<tr>
<td>Psychology</td>
<td>4.96 (0.98)</td>
<td>4.86 (1.07)</td>
<td>1.29</td>
<td>585</td>
<td>0.257</td>
</tr>
<tr>
<td>Mental Health</td>
<td>18.23 (2.38)</td>
<td>19.14 (2.45)</td>
<td>18.72</td>
<td>585</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Interestingly, although respondents residing in the rural areas have lower knowledge scores compared to respondents residing in the urban areas, they have more positive attitudes towards mental health.
**Relationship between Knowledge and Attitude Scores**

Statistical analyses were undertaken to determine whether there were any relationships between knowledge scores and attitude scores. For these analyses, Pearson’s correlation test was performed. As shown in Table 9.2.23, Pearson’s correlation test did not show any significant relationship between knowledge and attitude scores in general ($r=-0.047, p=0.257$), however, when further analyses were conducted on the subscales, results showed that knowledge in psychology is statistically related to attitude towards psychology ($r=0.136, p=0.01$). Although the relationship was weak, it indicated that the more people know about psychology, the attitude towards psychology become more positive. Conversely, attitude towards mental health was found to be negatively related to mental health knowledge ($r=-0.110, p=0.08$), reflecting that the public’s attitude towards mental health issues seems to decrease when they know more about mental health issues. However, this must be interpreted with cautious as the effect size for the relationships were weak ($r^2=0.018$) and ($r^2=0.012$) for attitude towards psychology and mental health respectively.
Table 9.2.23

Relationships between Knowledge and Attitude Scores

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>1. Total knowledge score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total attitude score</td>
<td>-.047</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. Knowledge in psychology</td>
<td>.814</td>
<td>-.008</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4. Attitude towards psychology</td>
<td>.120</td>
<td>.617</td>
<td>.136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Mental health knowledge</td>
<td>.885</td>
<td>-.065</td>
<td>.451</td>
<td>.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Attitude towards mental health</td>
<td>-.106</td>
<td>.945</td>
<td>-.067</td>
<td>.326</td>
<td>-.110</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Mental Health Knowledge, Attitude towards Mental Health and Help Seeking Tendency/ Behaviour

Factors Predictive of Knowledge on Mental Health Issues

In an attempt to identify the factors that might predict respondents’ probability of having good mental health knowledge, multinomial logistic regression analysis was undertaken. For the multinomial logistic regression analysis, knowledge score (of the mental health subscale) was recoded into categories, i.e. ‘High knowledge score’ group for respondents with knowledge score ≥ 5 and ‘Low knowledge score’ group for respondents with knowledge score below 5, from a maximum total of 10. Similarly, attitude score (of the mental health subscale) was recoded ‘High attitude score’ group (≥15) and ‘Low attitude score’ group (score below 15), from a maximum score of 32. The predictors for this analysis include variables in relation to the
demographic characteristics and prior exposure to mental health services. Table 9.2.24 shows the multinomial logistic regression analysis of general public’s mental health knowledge.

The results of the multinomial logistic regression indicate that once all explanatory variables had been controlled for, residential location, education background and age of respondents were strongly associated with the mental health knowledge score. The following formula:

$$ p(\text{event}) = \frac{1}{1 + e^{-z}} $$

where $p = \text{probability}$

$e = 2.718$

$z = \beta_0 + \beta_1 + \ldots \text{ (intercepts or regression coefficients)}$

was used to estimate the probability of a respondent from the household survey, who aged between 18 and 55, with at least a primary or a secondary school education level, who resides in the urban area of Klang Valley having good mental health knowledge. The results are summarized in Table 9.2.25.
Table 9.2.24
Multinomial Logistic Regression Analysis of General Public’s Mental Health Knowledge Score (N=578)

<table>
<thead>
<tr>
<th>Reference Group</th>
<th>B</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp (B)</th>
<th>95% Confidence Interval for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Intercept</td>
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<td>1.072</td>
<td>3.568</td>
<td>1</td>
<td>.059</td>
<td>3.079</td>
<td>1.754</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.125</td>
<td>.287</td>
<td>15.329</td>
<td>1</td>
<td>.000</td>
<td>3.079</td>
<td>1.754</td>
</tr>
<tr>
<td>Female</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
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<td>.211</td>
<td>.322</td>
<td>1</td>
<td>.570</td>
<td>.887</td>
<td>.587</td>
</tr>
<tr>
<td>Indian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>.683</td>
<td>1.679</td>
<td>.166</td>
<td>1</td>
<td>.684</td>
<td>1.981</td>
<td>.074</td>
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<td>.750</td>
<td>1.167</td>
<td>1</td>
<td>.280</td>
<td>2.248</td>
<td>.517</td>
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<tr>
<td>Christian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>-.768</td>
<td>1.523</td>
<td>.254</td>
<td>1</td>
<td>.614</td>
<td>.464</td>
<td>.023</td>
</tr>
<tr>
<td>Buddhist</td>
<td>-.116</td>
<td>.410</td>
<td>.080</td>
<td>1</td>
<td>.777</td>
<td>.890</td>
<td>.398</td>
</tr>
<tr>
<td>Hindu</td>
<td>.133</td>
<td>.791</td>
<td>.028</td>
<td>1</td>
<td>.866</td>
<td>1.142</td>
<td>.242</td>
</tr>
<tr>
<td>Tertiary</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
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<td>1</td>
<td>.013</td>
<td>.356</td>
<td>.158</td>
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<tr>
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<td>.235</td>
<td>14.485</td>
<td>1</td>
<td>.000</td>
<td>.410</td>
<td>.259</td>
</tr>
<tr>
<td>Never sought help</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sought help</td>
<td>.272</td>
<td>.463</td>
<td>.344</td>
<td>1</td>
<td>.557</td>
<td>1.312</td>
<td>.530</td>
</tr>
<tr>
<td>56 and above</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - 25</td>
<td>.029</td>
<td>.637</td>
<td>.002</td>
<td>1</td>
<td>.964</td>
<td>1.029</td>
<td>.295</td>
</tr>
<tr>
<td>26 - 36</td>
<td>.285</td>
<td>.630</td>
<td>.205</td>
<td>1</td>
<td>.651</td>
<td>1.330</td>
<td>.387</td>
</tr>
<tr>
<td>36 - 45</td>
<td>.693</td>
<td>.638</td>
<td>1.182</td>
<td>1</td>
<td>.277</td>
<td>2.001</td>
<td>.573</td>
</tr>
<tr>
<td>46 - 55</td>
<td>1.589</td>
<td>.645</td>
<td>6.066</td>
<td>1</td>
<td>.014</td>
<td>4.901</td>
<td>1.383</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mental health</td>
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<td></td>
</tr>
<tr>
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<td>.260</td>
<td>.085</td>
<td>1</td>
<td>.770</td>
<td>1.079</td>
<td>.648</td>
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<td></td>
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</tr>
</tbody>
</table>

Note: The reference category is low mental health knowledge score (<5). The ‘Others’ group for ethnicity and religion were omitted from this analysis as the number of respondents belonged to these 2 groups were less than 10.
Multinomial logistic regression analysis was also conducted to identify the factors that might predict respondents’ probability of having good attitude towards mental health issues. Similarly, attitude score (of the mental health subscale) was recoded ‘High attitude score’ group (≥15) and ‘Low attitude score’ group (score below 15), from a maximum score of 32, for the abovementioned purpose. Knowledge score (of the mental health subscale) was recoded into categories, i.e. ‘High knowledge score’ group for respondents with knowledge ≥5 and ‘Low knowledge score’ group for respondents with knowledge score below 5, from a maximum total of 10. The predictors for this analysis include variables in relation to the demographic characteristics and prior exposure to mental health services. Table 9.2.26 shows the multinomial logistic regression analysis of general public’s attitude towards mental health issues.


Table 9.2.26
Multinomial Logistic Regression Analysis of General Public’s Mental Health Attitude Score (N=578)

<table>
<thead>
<tr>
<th>Reference Group</th>
<th>B</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp (B)</th>
<th>95% Confidence Interval for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>-.631</td>
<td>.305</td>
<td>4.281</td>
<td>1</td>
<td>.039</td>
<td>.532</td>
<td>.292</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-.057</td>
<td>.233</td>
<td>.060</td>
<td>1</td>
<td>.806</td>
<td>.944</td>
<td>.598</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>.414</td>
<td>2.057</td>
<td>.040</td>
<td>1</td>
<td>.841</td>
<td>1.513</td>
<td>.027</td>
</tr>
<tr>
<td>Chinese</td>
<td>.150</td>
<td>.769</td>
<td>.038</td>
<td>1</td>
<td>.846</td>
<td>1.162</td>
<td>.257</td>
</tr>
<tr>
<td>Christian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>.027</td>
<td>1.930</td>
<td>.000</td>
<td>1</td>
<td>.989</td>
<td>1.027</td>
<td>.023</td>
</tr>
<tr>
<td>Buddhist</td>
<td>-.1076</td>
<td>.438</td>
<td>6.025</td>
<td>1</td>
<td>.014</td>
<td>.341</td>
<td>.145</td>
</tr>
<tr>
<td>Hindu</td>
<td>-.1045</td>
<td>.799</td>
<td>1.713</td>
<td>1</td>
<td>.191</td>
<td>.352</td>
<td>.073</td>
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<tr>
<td>Tertiary</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1.264</td>
<td>.556</td>
<td>5.168</td>
<td>1</td>
<td>.023</td>
<td>3.539</td>
<td>1.190</td>
</tr>
<tr>
<td>Secondary</td>
<td>-.387</td>
<td>.273</td>
<td>2.006</td>
<td>1</td>
<td>.157</td>
<td>.679</td>
<td>.397</td>
</tr>
<tr>
<td>Never sought help</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sought help</td>
<td>.674</td>
<td>.429</td>
<td>2.466</td>
<td>1</td>
<td>.116</td>
<td>1.963</td>
<td>.846</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - 25</td>
<td>1.361</td>
<td>.592</td>
<td>5.279</td>
<td>1</td>
<td>.022</td>
<td>3.901</td>
<td>1.222</td>
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<td>26 - 36</td>
<td>1.002</td>
<td>.582</td>
<td>2.965</td>
<td>1</td>
<td>.085</td>
<td>2.723</td>
<td>.871</td>
</tr>
<tr>
<td>36 - 45</td>
<td>.952</td>
<td>.601</td>
<td>2.512</td>
<td>1</td>
<td>.113</td>
<td>2.592</td>
<td>.798</td>
</tr>
<tr>
<td>46 - 55</td>
<td>.629</td>
<td>.621</td>
<td>1.023</td>
<td>1</td>
<td>.312</td>
<td>1.875</td>
<td>.555</td>
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</tr>
<tr>
<td>High mental health score</td>
<td>.055</td>
<td>.259</td>
<td>.044</td>
<td>1</td>
<td>.833</td>
<td>1.056</td>
<td>.636</td>
</tr>
</tbody>
</table>

Note. The reference category is low mental health attitude score (<15). The 'Others' group for ethnicity and religion were omitted from this analysis as the number of respondents belonged to these 2 groups were less than 10.
The results of the multinomial logistic regression indicate that once all explanatory variables had been controlled for, residential location, religion, education background and age were strongly associated with respondents’ attitudes toward mental health. The same formula was used to estimate the probability of a respondent from the household survey, aged between 18 and 55, who practices either Buddhism, Hinduism, or Christianity, with at least a primary or a secondary school education level, who resides in the urban area of Klang Valley would have a good attitude towards mental health issues. The results are summarized in Table 9.2.27.

Table 9.2.27
Multinomial Logistic Regression Results Predicting the Probability that a member of the General Public Resides in the Urban Area of Klang Valley having High Attitude Score (≥15): Background Demographic Characteristics (N=587)

<table>
<thead>
<tr>
<th>Religion (Reference: Christian)</th>
<th>Age (Reference: 56+)</th>
<th>Education background (Reference: Tertiary education)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Muslim</td>
<td>&lt; 25</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>26 – 35</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>36 – 45</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>46 – 55</td>
<td>0.82</td>
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<tr>
<td>Buddhist</td>
<td>&lt; 25</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>26 – 35</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>36 – 45</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>46 – 55</td>
<td>0.61</td>
</tr>
<tr>
<td>Hindu</td>
<td>&lt; 25</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>26 – 35</td>
<td>0.70</td>
</tr>
<tr>
<td></td>
<td>36 – 45</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>46 – 55</td>
<td>0.62</td>
</tr>
</tbody>
</table>
Help Seeking Tendency/ Behaviour

In an attempt to identify the factors that might predict a respondent’s tendency to seek help for mental health issues when necessary, logistic regression analysis was undertaken. This statistical technique is used primarily in situations when the dependent variable is not a continuous or quantitative variable, in this case, respondents were asked to respond only ‘yes’ or ‘no. For the logistic regression analysis, respondents who responded ‘Yes’ to the item examining help seeking tendency were coded as ‘1’ while respondent who responded ‘No’ were coded as ‘0’. The predictors for this analysis include variables in relation to the demographic characteristics, prior training in psychology, prior exposure to mental health services, knowledge and attitude.

Results indicated that the overall percent correctly predicted seems moderately good at 79.6%. Odds ratio (OR) was reported as a way of comparing whether the probability of a certain event is the same for the groups. From Table 9.2.28, among the independent variables, ‘age’, ‘ethnicity’, and attitudes are the variables found to have a significant influence on respondents’ help-seeking tendency. While respondents’ ethnic background influenced their decisions (OR = 0.569, \( p=0.032 \)), younger respondents (OR = 0.811, \( p=0.038 \)) and respondents with a more positive attitude towards psychology (OR = 1.680, \( p<0.001 \)) and mental health (OR = 1.200, \( p<0.001 \)) were more willing to seek help.
Table 9.2.28
Logistic Regression on the Analysis of the Relationship of the Independent Variables to Help Seeking Tendency/behaviour (N=587)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>B</th>
<th>SEB</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
<th>Exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential location</td>
<td>-.347</td>
<td>.257</td>
<td>1.813</td>
<td>1</td>
<td>.178</td>
<td>.707</td>
<td>.427 – 1.171</td>
</tr>
<tr>
<td>Age</td>
<td>-.210</td>
<td>.101</td>
<td>4.302</td>
<td>1</td>
<td>.038</td>
<td>.811</td>
<td>.665 – .989</td>
</tr>
<tr>
<td>Sex</td>
<td>-.102</td>
<td>.213</td>
<td>.229</td>
<td>1</td>
<td>.632</td>
<td>.903</td>
<td>.595 – 1.370</td>
</tr>
<tr>
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<td>.263</td>
<td>4.600</td>
<td>1</td>
<td>.032</td>
<td>.569</td>
<td>.340 – .953</td>
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<td>Religion</td>
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<td>.171</td>
<td>.615</td>
<td>1</td>
<td>.433</td>
<td>1.144</td>
<td>.818 – 1.599</td>
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<td>.829</td>
<td>1</td>
<td>.362</td>
<td>1.205</td>
<td>.807 – 1.799</td>
</tr>
<tr>
<td>Prior exposure to mental health services</td>
<td>-.639</td>
<td>.454</td>
<td>1.980</td>
<td>1</td>
<td>.159</td>
<td>.528</td>
<td>.217 – 1.285</td>
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<td></td>
</tr>
<tr>
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<td>.033</td>
<td>.086</td>
<td>.146</td>
<td>1</td>
<td>.702</td>
<td>1.033</td>
<td>.873 – 1.223</td>
</tr>
<tr>
<td>Mental health</td>
<td>.102</td>
<td>.065</td>
<td>2.482</td>
<td>1</td>
<td>.115</td>
<td>1.107</td>
<td>.975 – 1.257</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>.519</td>
<td>.119</td>
<td>19.069</td>
<td>1</td>
<td>.000</td>
<td>1.680</td>
<td>1.331 – 2.120</td>
</tr>
<tr>
<td>Mental health</td>
<td>.182</td>
<td>.048</td>
<td>14.332</td>
<td>1</td>
<td>.000</td>
<td>1.200</td>
<td>1.092 – 1.318</td>
</tr>
</tbody>
</table>

Note. Sex (Male=1, Female=2), Age (1=<25 and below, 2=26 – 35, 3= 36 – 45, 4= 46 – 55, 5= 56 or above), Ethnicity (1=Malay, 2=Chinese, 3=Indian, 4=others), Religious beliefs (1=Islam, 2=Buddhism, 3=Hinduism, 4=Christianity, 5=others), Education level (1=Primary, 2=Secondary, 3=Tertiary), Prior training in psychology (0= No, 1=Yes), Experience with mental services (0=No, 1=Yes)
9.2.6 Summary

Demographic information reported by the respondents showed that the study respondents were relatively older (Mean=33.9 years, $SD=12.13$) than the population mean age of 26.6 years old. A large proportion of the sample consists of Malays; hence, Islam was the most commonly mentioned religion. A majority of the respondents have completed secondary school. Less than 2% of the respondents have sought or know someone who has sought psychological services. Over half the sample reported that they were familiar with the role of a psychologist; however, 47.5% of the respondents do not know what qualifies a psychologist.

As indicated in the results, the knowledge level of psychology and mental health among the general public was rather low, with less than 10% of the respondents achieving a score of 50%. In other words, the general public either possess high misconceptions in both psychology and mental health (incorrect responses), or do not have good understanding in both (responded “Don’t Know”). It seems that media (including television programmes, movies and radio broadcast) and reading materials (books, newspapers, magazines) are the primary source for information on psychology and mental health issues.

The results from the attitude scale show that respondents who agree (and strongly agree) and disagree (and strongly disagree) were approximately the same. The mean score for the attitude scale was 23.5 (SD=2.93) indicating that the attitude towards psychology and mental health issues was only slightly skewed to the positive side. Nevertheless, when the scores were broken down by item, over two-third of the
respondents believed that mental health problems do not affect everyone, people
generally find it difficult to talk to individuals with mental health problems, and if
they have mental health problems, they would not like other people to know.

An analysis was conducted to determine if demographic characteristics affect
or predict respondents’ attitudes and knowledge levels of psychology and mental
health. Respondents’ knowledge level of psychology and mental health was found to
be influenced by their age, education level and residential location. Respondents with
prior training in psychology were also found to have better knowledge of mental
health. Understandably, these could be the individuals who have an interest in
psychology, and hence possess more accurate knowledge about psychology. In terms
of attitude, respondents’ attitude towards psychology was related to their education
level and their knowledge level in psychology. However, education level was not a
predictor for attitude towards mental health. Respondents’ with prior exposure to
mental health services were found to have a more positive attitude towards mental
health. Ethnicity and religion were also found to be significantly related to their
attitude.

Regression analyses showed that age, ethnicity, and attitude towards
psychology and mental health predicted the respondents’ tendency to seek
psychological services when necessary. Knowledge, however, did not predict help-
seeking behaviour.

Although knowledge level in general does not predict attitude, at least in this
sample, it is necessary to interpret these results cautiously. The population knowledge
level in both psychology and mental health is rather low, a majority of the respondents do not have a clear picture of what psychology is all about and possess misunderstandings about mental health, let alone voicing their perceptions about the profession and acknowledging the need for help seeking.
9.3 Students’ Perception and Attitude towards Psychology and Mental Health

In total, 246 students enrolled in the Introductory Psychology/General Psychology course from 4 universities in Klang Valley completed the questionnaire during the first day of class. The survey was administered in class, 270 questionnaires were distributed with the assistance of the course instructors from respective institutions, 246 completed questionnaires were returned achieving a 91.1% completion rate.

9.3.1 Sample Profile

Sex and Age

Among the 246 students, 57 (23.2%) were males and 189 were females (76.8%) (Table 9.3.1). The mean age of the participants was 20.2 years old (SD=1.83).

Table 9.3.1
Sex of the Student Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>57</td>
<td>23.2</td>
</tr>
<tr>
<td>Female</td>
<td>189</td>
<td>76.8</td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Among the 246 students enrolled in the introductory psychology course, 101 (41.1%) were psychology major students; all students had not received formal training in psychology. Twenty-five students had not declared a major. Figure 9.3.1 summarized students’ declared major.

---

**Figure 9.3.1**

Students’ Declared Major (Psychology and Non-Psychology major) (N=246)

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§§§ Institutions that follow the American Degree curriculum do not require students to declare a major during their first semester of study.
Ethnic Background and Religion

Similarly, as the past literature had shown for the general public, it was thought that religious beliefs and ethnic background would have a bearing on people’s values and attitude. As shown in table 9.14, 50.4% of the respondents were Malays, 73 (29.7%) Chinese and 29 (11.8%) Indians. Accordingly, 55.8% of the respondents were Muslims, 45 (18.4%) Buddhist. Eighteen respondents (7.4%) claimed to have a belief in Hinduism, and 46 (18.9%) were Christians. Two participants expressed that they did not hold any specific religious beliefs.

Figure 9.3.2

Ethnic Background of the Student Participants (N=246)
Figure 9.3.3

Religion Practiced by the Student Participants (N=246)

Note. “Others” represents the 2 respondents who claimed that they did not have any specific beliefs.

Prior Exposure to Mental Health Services or Individual with Mental Health Issues

When asked about respondents’ prior exposure to mental health services or mentally ill individuals, 51 (20.7%) indicated that they know someone who has/had mental health problems although the majority of the respondents did not want to reveal their relationships with the sufferers.

When asked if they or anyone they know of have ever sought help from mental health professionals, 44 (18%) indicated that they had sought help in the past. Among the 44 students, 16 (36%) have sought help from psychiatrists, 15 (34%) have sought help from psychologists. Two students have indicated that they have seen a
doctor (5%), while 11 (25%) mentioned that they have consulted counsellors from schools. Figure 9.3.5 shows the reasons for seeking help from mental health professionals reported by the student participants.

Figure 9.3.5

Reasons for Seeking Help from Mental Health Professionals reported by the Student Participants (N=246)
The remaining 195 students had not sought help nor did they know of anyone who had ever sought help for mental health issues. These students were asked to elaborate on the reasons why they have not considered seeking help, or barriers that stopped individuals to seek help. Approximately 79% (n=157) of the respondents indicated that their conditions were manageable; therefore, did not see the need to seek help from mental health professionals. Figure 9.3.5 shows reasons for not seeking help or perceived barriers for seeking help.

Figure 9.3.5

Reasons for Not Seeking Help from Mental Health Professionals Disclosed by the Student Participants (N=246)
Familiarity with the Role of a Psychologist

When asked about how familiar they are with the role of a psychologist, 12 (4.9%) indicated that they were not at all familiar with the profession; 96 (39.0%) indicated that they were not very familiar; 129 (52.4%) indicated that they were somewhat familiar; and very few, 9 (3.7%) mentioned that they were very familiar (Figure 9.3.6).

Figure 9.3.6
Students’ Perceived Familiarity with the Role of a Psychologist (N=246)
Respondents were also asked if they understand how a psychologist is trained. When asked about the minimum academic qualification they believed a psychologist has, 13 (5.3%) indicated that by taking a few psychology courses will qualify someone as a psychologist, 70 (28.5%) indicated that an undergraduate degree in psychology is required. Seventy (28.5%) mentioned a Masters degree in psychology, 19 (7.7%) believed that a psychologist holds a medical degree, 28 (11.4%) believed that a psychologist would have a Doctorate in psychology, and 46 (18.7%) expressed that they do not know what qualifies a psychologist (Table 9.3.7).
9.3.2 Descriptive Presentation of the Level of knowledge on Psychology and Mental Health

Respondents were presented with 36 items related to psychology and mental health. Respondents were requested to answer “yes”, “no” or “I don’t know” when the questions were asked. The mean of the correct responses from participants was 13.60 items, ranging from 1.0 – 24.0 items (SD=4.25), in which 83.3% of the respondents scored less than 50% of the total score.

Further analysis was performed to examine how respondents respond to each individual item. On 12 of the 36 items, there were over 50% correct responses. Table 9.3.2 shows responses to each item.
Table 9.3.2

Responses to the 36 items in the Psychology and Mental Health Questionnaire (PMHQ-II) (N=246)

<table>
<thead>
<tr>
<th>Item</th>
<th>T</th>
<th>F</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychology is a science.</td>
<td>13</td>
<td>198</td>
<td>13</td>
</tr>
<tr>
<td>2. The titles “psychologist” and “Psychiatrist” refer to the same profession.</td>
<td>35</td>
<td>140</td>
<td>49</td>
</tr>
<tr>
<td>3. All psychologists work in mental hospital.</td>
<td>7</td>
<td>207</td>
<td>10</td>
</tr>
<tr>
<td>4. A person with schizophrenia is a person with “split personality”.</td>
<td>61</td>
<td>54</td>
<td>106</td>
</tr>
<tr>
<td>5. Only a small minority of people with psychological problems seek help from mental health professionals today.</td>
<td>30</td>
<td>155</td>
<td>39</td>
</tr>
<tr>
<td>6. Psychologists read people’s mind.</td>
<td>49</td>
<td>153</td>
<td>22</td>
</tr>
<tr>
<td>7. Psychologists can help an organization in modifying the work environment to maximize productivity and morale of staff.</td>
<td>5</td>
<td>189</td>
<td>30</td>
</tr>
<tr>
<td>8. When we sleep, the brain sleeps as well.</td>
<td>23</td>
<td>163</td>
<td>38</td>
</tr>
<tr>
<td>9. In an emergency, you are more likely to receive help if a lot of people are present.</td>
<td>100</td>
<td>70</td>
<td>54</td>
</tr>
<tr>
<td>10. Psychologists study behaviour and the mind, but not biology.</td>
<td>57</td>
<td>135</td>
<td>32</td>
</tr>
<tr>
<td>11. Most people use only 10% of their brains.</td>
<td>65</td>
<td>71</td>
<td>88</td>
</tr>
<tr>
<td>12. If a person cannot recall something, there is no way that the person could still remember it.</td>
<td>15</td>
<td>178</td>
<td>31</td>
</tr>
<tr>
<td>13. Some people never dream.</td>
<td>19</td>
<td>135</td>
<td>70</td>
</tr>
<tr>
<td>14. Hypnosis does not work on everyone.</td>
<td>41</td>
<td>64</td>
<td>119</td>
</tr>
<tr>
<td>15. Hypnosis is useful for retrieving memories of forgotten events.</td>
<td>120</td>
<td>5</td>
<td>99</td>
</tr>
<tr>
<td>16. Pictures are easier to recall than words.</td>
<td>10</td>
<td>205</td>
<td>9</td>
</tr>
<tr>
<td>17. Eyewitness testimony is the most reliable means of identifying criminals.</td>
<td>97</td>
<td>62</td>
<td>65</td>
</tr>
<tr>
<td>18. Psychology is simply common sense.</td>
<td>43</td>
<td>109</td>
<td>72</td>
</tr>
<tr>
<td>19. Mentally ill people never recover.</td>
<td>16</td>
<td>151</td>
<td>57</td>
</tr>
<tr>
<td>20. Psychiatrists primarily use psychoanalysis as a basis of therapy.</td>
<td>63</td>
<td>14</td>
<td>147</td>
</tr>
</tbody>
</table>

*Note.* The values represent the number of response for T(True), F (False) and DK (Don’t Know) of each item. Correct answers were highlighted in Bold.
Table 9.3.2  Continued

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>T</th>
<th>F</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. A person’s intelligence is determined by the brain size.</td>
<td></td>
<td>14</td>
<td>164</td>
<td>46</td>
</tr>
<tr>
<td>22. All psychologists work with people with mental illness.</td>
<td></td>
<td>8</td>
<td>190</td>
<td>26</td>
</tr>
<tr>
<td>23. People with mental illness are usually dangerous and violent.</td>
<td></td>
<td>51</td>
<td>139</td>
<td>34</td>
</tr>
<tr>
<td>24. What we call colours, sounds, tastes, smells, and textures exist only in our brains, not in the outside world.</td>
<td></td>
<td>99</td>
<td>36</td>
<td>89</td>
</tr>
<tr>
<td>25. Right-brained people are more creative; left-brained people are more analytic.</td>
<td></td>
<td>27</td>
<td>126</td>
<td>70</td>
</tr>
<tr>
<td>26. Watching violence on television can increase the likelihood that a person becomes aggressive.</td>
<td></td>
<td>30</td>
<td>164</td>
<td>30</td>
</tr>
<tr>
<td>27. Mental health is defined as the absence of mental disorders.</td>
<td></td>
<td>81</td>
<td>28</td>
<td>114</td>
</tr>
<tr>
<td>28. We experience stress even when good things happen to us.</td>
<td></td>
<td>66</td>
<td>108</td>
<td>47</td>
</tr>
<tr>
<td>29. People usually fall in love with someone different from themselves; in other words, opposites attract.</td>
<td></td>
<td>119</td>
<td>56</td>
<td>49</td>
</tr>
<tr>
<td>30. Psychological disorders like depression and anxiety disorders do not affect children.</td>
<td></td>
<td>15</td>
<td>154</td>
<td>55</td>
</tr>
<tr>
<td>31. Psychiatric disorders are not true medical illnesses like heart disease and diabetes.</td>
<td></td>
<td>62</td>
<td>62</td>
<td>100</td>
</tr>
<tr>
<td>32. Eating disorders (e.g. anorexia nervosa, bulimia nervosa) are psychological disorders.</td>
<td></td>
<td>11</td>
<td>163</td>
<td>50</td>
</tr>
<tr>
<td>33. During psychotherapy, clients usually lie on a couch and talk about whatever comes to mind.</td>
<td></td>
<td>86</td>
<td>33</td>
<td>104</td>
</tr>
<tr>
<td>34. Women tend to be more emotional than men.</td>
<td></td>
<td>198</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>35. Stress can lead to illness, e.g. cancer, hypertension, mental disorders.</td>
<td></td>
<td>15</td>
<td>175</td>
<td>34</td>
</tr>
<tr>
<td>36. All psychology students study hypnosis in class.</td>
<td></td>
<td>31</td>
<td>81</td>
<td>112</td>
</tr>
</tbody>
</table>

Note. The values represent the number of response for T(True), F(False) and DK (Don’t Know) of each item. Correct answers were highlighted in Bold.
Figure 9.3.8 presents a list of information sources from which respondents learned about psychology and mental health. Respondents were requested to indicate as best as they could remember the where they learned the information from for each of the item presented in the questionnaire. As predicted, majority of the respondents could not specify or not able to remember the actual source of information. Moreover, as many respondents have responded “don’t know” to many of the items, these respondents were not requested to indicate the source of information. The most commonly reported sources of information by respondents who have answered “True” or “False” were therefore reported in this section.

Similar to the findings from the household survey, internet was surprisingly not one of the primary sources where respondents obtained information about psychology and mental health from. Among students, who are believed to be heavy users of the internet for research purposes, internet was somehow mentioned the least when asked about sources of information. Figure 9.3.9 shows information sources by item reported by the respondents.
Figure 9.3.8

Information Sources Most Frequently Mentioned by Student Participants

*Note.* Multiple responses recorded. Percentages represent proportions of responses obtained.
Figure 9.3.9

Information Sources by Item In PMHO-II
9.3.2 Relationship between independent variables and knowledge

This section analyses the effect of the independent (predictor) variables on the dependent (criterion) variable attitude towards psychology and mental health. Independent (predictor) variables include sex, age, ethnicity, religious beliefs, and education level. Respondents’ prior exposure to psychology and mental health issues are also explored.

Sex of Respondents

No significant difference was found between the sexes in their knowledge level in psychology ($t(244)=-0.706, p=0.481$) and mental health ($t(244)=0.923, p=0.357$) (Table 9.3.3).

Table 9.3.3
Relationship Between Sex With Knowledge Level (N=246)

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Mean (SD)</th>
<th>$t$</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Total Score</td>
<td>Male</td>
<td>13.56 (4.29)</td>
<td>-0.073</td>
<td>244</td>
<td>0.942</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>13.61 (4.25)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Male</td>
<td>9.75 (2.65)</td>
<td>-0.706</td>
<td>244</td>
<td>0.481</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>10.06 (2.97)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Male</td>
<td>3.81 (2.01)</td>
<td>0.923</td>
<td>244</td>
<td>0.357</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.54 (1.84)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A one-way ANOVA was carried out to compare students’ knowledge level in psychology and mental health among various ethnic groups (Table 9.2.11). Similar to the general population, this factor is thought to be important for a multi-cultural country like Malaysia, as people from different ethnic background may understand psychology and mental health differently. There was a significant difference among the ethnic groups in total knowledge score \( (F(3, 242)=2.759, p=0.043) \). The results also indicated that students of various ethnic background displayed significant differences in knowledge in relation to psychology \( (F(3, 242) = 3.21, p=0.024) \). The Indian students were most knowledgeable in psychology followed by the Malays, Chinese and students of other ethnic backgrounds. However, no significant differences were shown in mental health knowledge \( (F(3, 242) = 2.14, p=0.096) \).

Mean scores for the knowledge scales by ethnic group are shown in Table 9.3.4 and Figure 9.3.10.

Table 9.3.4

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Mean (SD)</th>
<th>Total Score</th>
<th>Psychology</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malay</td>
<td>124</td>
<td>13.82 (4.17)</td>
<td>10.31 (2.90)</td>
<td>3.52 (1.74)</td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>73</td>
<td>13.14 (4.36)</td>
<td>9.62 (2.95)</td>
<td>3.52 (2.00)</td>
<td></td>
</tr>
<tr>
<td>Indian</td>
<td>29</td>
<td>15.03 (3.26)</td>
<td>10.62 (2.06)</td>
<td>4.41 (1.72)</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>20</td>
<td>11.80 (5.00)</td>
<td>8.50 (3.20)</td>
<td>3.30 (2.27)</td>
<td></td>
</tr>
</tbody>
</table>
Overall Psychology Mental Health Knowledge Scale

Figure 9.3.10

Knowledge Score of Student Participants by Ethnicity (N=246)
Table 9.3.4 shows that Indians obtained the highest score on items of both the psychology and mental health components. Post-hoc comparisons based on Scheffe’s test also revealed that Indian students scored significantly higher than students who classified themselves in the ‘others’ group while Malay students also scored significantly higher than these students on items in relation to psychology (Table 9.3.5).
Religion

While it is important to examine the relationship between ethnic background and the knowledge level among the respondents, religion was also thought to be an important factor. A one-way ANOVA was performed to compare the various types of the participants’ religious affiliations and their knowledge in psychology and mental health. As shown in Table 9.3.7, no significant differences were found between the various types of religion with respect to knowledge level (F(4, 241)=0.713, p=0.584), including the knowledge in psychology (F(4, 241)=0.850, p=0.495) and mental health (F(4, 241)=0.999, p=0.409). As shown in Table 9.3.6 and Figure 9.3.11, Hindus had the highest mean scores on all items, followed by Christians, Muslims and Buddhists.

Table 9.3.6

Mean scores and Standard Deviations for the Knowledge Scales by Religion (N=246)

<table>
<thead>
<tr>
<th>Religion</th>
<th>N</th>
<th>Total Score Mean (SD)</th>
<th>Psychology Mean (SD)</th>
<th>Mental Health Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islam</td>
<td>135</td>
<td>13.73 (4.40)</td>
<td>10.22 (3.05)</td>
<td>3.50 (1.82)</td>
</tr>
<tr>
<td>Buddhism</td>
<td>45</td>
<td>12.71 (3.95)</td>
<td>9.33 (2.95)</td>
<td>3.38 (1.80)</td>
</tr>
<tr>
<td>Hindu</td>
<td>18</td>
<td>14.44 (3.67)</td>
<td>10.22 (2.13)</td>
<td>4.22 (1.90)</td>
</tr>
<tr>
<td>Christianity</td>
<td>46</td>
<td>13.76 (4.37)</td>
<td>9.89 (2.68)</td>
<td>3.87 (2.12)</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>13.50 (0.71)</td>
<td>9.50 (0.71)</td>
<td>4.00 (1.41)</td>
</tr>
</tbody>
</table>
Figure 9.3.11

Knowledge Score of Student Participants by Religion (N=246)
Table 9.3.7

One–way ANOVA of the Knowledge Scales by Religion (N=246)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>51.741</td>
<td>4</td>
<td>12.935</td>
<td>0.713</td>
<td>0.584</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4371.418</td>
<td>241</td>
<td>18.139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4423.159</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>28.583</td>
<td>4</td>
<td>7.146</td>
<td>0.850</td>
<td>0.495</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2025.401</td>
<td>241</td>
<td>8.404</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2053.984</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>14.098</td>
<td>4</td>
<td>3.524</td>
<td>0.999</td>
<td>0.409</td>
</tr>
<tr>
<td>Within Groups</td>
<td>850.654</td>
<td>241</td>
<td>3.530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>864.752</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Declared Major

Table 9.3.8 shows that students who have declared a major in psychology scored significantly higher than students who are not majoring in psychology on items related to mental health issues, $F (1,244) =5.89, p=0.016$, however, they do not differ from others on items related to psychology, $F (1,244) =3.541, p=0.061$. This may be explained by the fact that all students have no prior training in psychology, hence, their level of knowledge may not differ from each other significantly.
Table 9.3.8

Relationship between Declared Major with Knowledge Level (N=246)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Major</th>
<th>Mean (SD)</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score</td>
<td>Psychology</td>
<td>14.36 (4.22)</td>
<td>2.360</td>
<td>244</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>Non-Psychology</td>
<td>13.07 (4.20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Psychology</td>
<td>10.41 (2.81)</td>
<td>1.882</td>
<td>244</td>
<td>0.061</td>
</tr>
<tr>
<td></td>
<td>Non-Psychology</td>
<td>9.70 (2.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Psychology</td>
<td>3.95 (1.88)</td>
<td>2.426</td>
<td>244</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>Non-Psychology</td>
<td>3.37 (1.84)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prior Exposure to Mental Health Issues or Services

Among the 246 students, 44 have indicated that they themselves or they knew someone they know sought psychological services in the past. An analysis was conducted to examine if this prior exposure to mental health issues and services is related to their understanding of psychology and mental health. The results revealed that prior exposure does have a relationship with the level of knowledge in both psychology, $F(1,244)=7.939$, $p=0.005$ and mental health, $F(1,244)=10.165$, $p=0.002$. 
Table 9.3.9

Relationship between Prior Exposures with Knowledge Level (N=246)

<table>
<thead>
<tr>
<th>Prior exposure</th>
<th>Mean (SD)</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>Yes</td>
<td>15.50 (3.80)</td>
<td>3.345</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>13.18 (4.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>Yes</td>
<td>11.09 (2.77)</td>
<td>2.818</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>9.75 (2.87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>Yes</td>
<td>4.41 (1.59)</td>
<td>3.188</td>
<td>244</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3.43 (1.90)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Familiarity With the Role of a Psychologist

Previous studies reported that psychology major students possess inaccurate understanding about the role of a psychologist. For this reason, students were asked to rate their familiarity with the role of a psychologist during the first day of their introductory psychology class. As indicated earlier, students who had declared a major in psychology did not seem to be different from their non-psychology major counterparts with regards to their knowledge level in psychology, although it was obvious that more psychology students claimed that they were familiar with the profession. A 2x2 factorial ANOVA examined if the knowledge level of psychology and non-psychology major students was affected by their familiarity with the role of a psychologist. In table 9.3.15, it can be seen that students’ ratings on their familiarity with the role of a psychologist showed no differential effect on the knowledge level of psychology and non-psychology major students ($p=0.726$).
Table 9.3.10

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>59.808(a)</td>
<td>5</td>
<td>11.962</td>
<td>.777</td>
<td>.569</td>
</tr>
<tr>
<td>Intercept</td>
<td>3388.359</td>
<td>1</td>
<td>3388.359</td>
<td>220.058</td>
<td>.000</td>
</tr>
<tr>
<td>MAJOR</td>
<td>14.389</td>
<td>1</td>
<td>14.389</td>
<td>.934</td>
<td>.337</td>
</tr>
<tr>
<td>FAMILIAR</td>
<td>31.321</td>
<td>3</td>
<td>10.440</td>
<td>.678</td>
<td>.568</td>
</tr>
<tr>
<td>MAJOR * FAMILIAR</td>
<td>1.904</td>
<td>1</td>
<td>1.904</td>
<td>.124</td>
<td>.726</td>
</tr>
<tr>
<td>Error</td>
<td>1185.614</td>
<td>77</td>
<td>15.398</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16090.000</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1245.422</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a  R Squared = .048 (Adjusted R Squared = -.014)

In summary, among the demographic variables examined, ethnic background, prior exposure to mental health issues and services are the only two that are significantly related to the level of knowledge of the respondents.
9.3.4 The Longitudinal Study

Among the 246 students who have completed the survey at pretest, 83 agreed to participate in a post-test upon completion of the introductory psychology course. Among the 163 students who took part in the pre-test, many decided not to enrol to the course (during the “add and drop” period, where some colleges and universities would allow students to withdraw from a course without penalty within the first two weeks of classes), the remaining students were absent from class when the post-test was conducted. Among the 83 participants who completed the posttest, 20 (24.10%) were male and 63 (75.90%) were female. Over 30% of the respondents were Malay, 38.6% were Chinese, and 20.5% were Indians. Majority of the participants (36%) were Muslims, followed by Christians (28%), Buddhist (25%) and Hindu (10%). Among the 83 participants, 36 (43%) were Psychology major students. Table 9.3.13 summarizes the demographic characteristics of the respondents.

The questionnaires were distributed to these students again on the last day of the introductory psychology class to examine if the knowledge score have improved after attending the course (post-test). Paired-sample t-test was performed to analyze the change. Results shown that these students have scored significantly higher than the score obtained on the first day of class (t(82) =17.19, p<0.001). Figure 9.3.12 and Figure 9.3.13 presents the total responses by subscale respectively based on 83 respondents for each item before and after the course.
The 83 respondents scored significantly better (at $p < 0.05$) on items 1, 2, 4, 5, 7, 8, 13, 14, 15, 16, 20, 21, 25, 26, 28, 32, 35, 36, conversely, significant lower on one item, namely item 24. Among the 18 items with significant improvement, 12 items belong to the psychology subscale, while the other 6 belong to the mental health subscale.

Table 9.3.11

Demographic Characteristics of Respondents Who Took Part in Longitudinal Study

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>24.1</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>75.9</td>
</tr>
<tr>
<td>Ethnic Background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>26</td>
<td>31.3</td>
</tr>
<tr>
<td>Chinese</td>
<td>32</td>
<td>38.6</td>
</tr>
<tr>
<td>Indian</td>
<td>17</td>
<td>20.5</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>9.6</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>30</td>
<td>36.1</td>
</tr>
<tr>
<td>Buddhist</td>
<td>21</td>
<td>25.3</td>
</tr>
<tr>
<td>Hindu</td>
<td>8</td>
<td>9.6</td>
</tr>
<tr>
<td>Christian</td>
<td>23</td>
<td>27.7</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Declared major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>36</td>
<td>43.4</td>
</tr>
<tr>
<td>Non-Psychology</td>
<td>47</td>
<td>56.6</td>
</tr>
</tbody>
</table>
Figure 9.3.12

Number of Correct Responses by Percentage of Items in relation to Psychology Before and After the Introductory Course (N=83)
Figure 9.3.13

Number of Correct Responses by Percentage of Items in relation to Mental Health Before and After the Introductory Course (N=83)
A split-plot ANOVA was conducted to examine how male and female students (sex) differ in their knowledge level before and after taking the introductory psychology course (time).

Table 9.3.12

Split Plot ANOVA with Time and Sex as Factors

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>2332.567</td>
<td>1</td>
<td>2332.567</td>
<td>229.626</td>
<td>0.000</td>
</tr>
<tr>
<td>Sex</td>
<td>4.648</td>
<td>1</td>
<td>4.648</td>
<td>0.191</td>
<td>0.663</td>
</tr>
<tr>
<td>Time * Sex</td>
<td>0.037</td>
<td>1</td>
<td>0.037</td>
<td>0.004</td>
<td>0.952</td>
</tr>
</tbody>
</table>

The results show that there was a significant main effect for time (F (1, 81)=229.63, \( p<0.001 \)), indicating that knowledge scores changed significantly from pre-test to post-test. However, the main effect for sex was not significant (F (1, 81)=0.191, \( p=0.663 \)) and therefore males and females did not differ from each other. The interaction effect was also not significant (F (1, 81)=0.004, \( p=0.952 \)) (Table 9.3.12).

Additional separate split-plot ANOVAs were also conducted to examine how ethnic background and religious affiliation affect students’ knowledge level before and after taking the introductory psychology course (time). Similarly, table 9.3.15 shows that there was a significant main effect for time (F (1, 79)=261.64, \( p<0.001 \)), indicating that knowledge scores changed significantly from pre-test to post-test. The main effect for ethnic background was also significant (F (3, 79)=3.151, \( p=0.029 \)) and therefore indicated that respondents of different ethnic backgrounds differed from
each other in their knowledge level. This was followed up with post-hoc test which suggested that Indian students scored better than the Malay students ($p=0.037$). Despite the main effects reported earlier, the interaction effect was not significant for time and ethnic background ($F(3, 79)=1.087$, $p=0.952$), suggesting that students of different ethnic groups improved equally well over time.

Table 9.3.13

Split Plot ANOVA with Time and Ethnic Background as Factors

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>2617.180</td>
<td>1</td>
<td>2617.180</td>
<td>261.642</td>
<td>0.000</td>
</tr>
<tr>
<td>Ethnic background</td>
<td>210.696</td>
<td>3</td>
<td>70.232</td>
<td>3.151</td>
<td>0.029</td>
</tr>
<tr>
<td>Time * Ethnic background</td>
<td>32.613</td>
<td>3</td>
<td>10.871</td>
<td>1.087</td>
<td>0.952</td>
</tr>
</tbody>
</table>

Regarding the relationship between time and religion, table 9.3.14 shows that the main effect for time was significant ($F(1, 78)= 91.04$, $p<0.001$), indicating that knowledge scores changed significantly from pre-test to post-test. The main effect for religion was not significant ($F(4, 78)=21.90$, $p=0.907$) and indicating that respondents of different religions did not differ from each other in their increase in knowledge level. The interaction effect was also not significant for time and religion ($F(4,78)=0.811$, $p=0.522$), suggesting that students of different religious background improved equally well over time.
Table 9.3.14

Split Plot ANOVA with Time and Religion as Factors

<table>
<thead>
<tr>
<th>Type III</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>922.107</td>
<td>1</td>
<td>922.107</td>
<td>91.043</td>
<td>0.000</td>
</tr>
<tr>
<td>Religion</td>
<td>87.597</td>
<td>4</td>
<td>21.899</td>
<td>.907</td>
<td>0.464</td>
</tr>
<tr>
<td>Time * Religion</td>
<td>32.839</td>
<td>4</td>
<td>8.210</td>
<td>.811</td>
<td>0.522</td>
</tr>
</tbody>
</table>

Students’ declared major was thought to be an important factor affecting students’ knowledge level and change over time, thus another split-plot ANOVA was also conducted. However, besides the main effect for time which was found to be significant (F (1, 81)= 305.76, \(p<0.001\)), the main effect for declared major was not significant (F (1, 78)= 1.20, \(p=0.277\)), similarly for the interaction effect (F (1, 78)= 0.191, \(p=0.663\)). Students’ knowledge level was similar regardless of their major (Table 9.3.15). They all also improved equally well over time.

Table 9.3.15

Split Plot ANOVA with Time and Declared Major as Factors

<table>
<thead>
<tr>
<th>Type III</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>3098.807</td>
<td>1</td>
<td>3098.807</td>
<td>305.764</td>
<td>0.000</td>
</tr>
<tr>
<td>Declared major</td>
<td>28.716</td>
<td>1</td>
<td>28.716</td>
<td>1.197</td>
<td>0.277</td>
</tr>
<tr>
<td>Time * Declared major</td>
<td>1.939</td>
<td>1</td>
<td>1.939</td>
<td>0.191</td>
<td>0.663</td>
</tr>
</tbody>
</table>
It is also important to note that calculating the score difference between pretest and posttest may not be sufficient, as the analysis did not account for individual differences in initial knowledge. Gain score analysis was performed, in which individual gain score was computed. A series of t-test and ANOVA was performed to examine the relationship between sex, ethnic background, religious affiliation, students’ major and the change in score at posttest. Results suggested that, sex \((t(81)=0.081, \ p=0.936)\), ethnic background \((F(3,79)=1.139, \ p=0.329)\), religious affiliation \((F(4, \ 78)=0.880, \ p=0.480)\), and major \((t(81)=0.385, \ p=0.701)\) were not significantly related to the improvement.

9.3.5 Summary

Two hundred and forty six students from four universities/colleges completed the survey. All students were enrolled in the Introductory Psychology course for the first time, 101 have declared a major in psychology, while the remaining non-psychology major students were taking the course to fulfil their academic requirements. Demographic data shows that half the respondents are Malays, followed by Chinese and Indians. Approximately 20% of the respondents had sought or knew someone who had sought psychological services. Over half the respondents reported that they were familiar with the role of a psychologist.

As indicated in the results, the knowledge level of psychology and mental health among the students was rather low, with less than 20% of the respondents achieving a score of 50%. This finding, however, is similar to other published studies of American students (e.g. McCutcheon, 1991; McKeachie, 1960; Taylor &
Kowalski, 2004). It seems that reading materials provided the primary source for information on psychology and mental health issues, followed by classroom knowledge, personal experience and media. The internet, which was predicted to be the most popular, was however ranked the lowest among all other information sources.

Ethnicity and prior exposure to mental health issues were found to be significantly related to the level of knowledge of the respondents. Although it was expected that students who are majoring in psychology would have a higher knowledge level, the hypothesis was not supported, at least with the current surveyed sample. This could be due to the fact that both psychology and non psychology major students had no prior training in psychology, therefore, their knowledge level did not differ from each other.

Eighty-three students agreed to take part in a longitudinal study. These students improved significantly on 18 items (out of 36), with the mean score improved from 6.48 (SD=2.40) to 11.78 (SD=2.60).

9.4 General Population vs. Student Population

As stated earlier in chapter 7, it is part of the aim of this study to examine if individuals with prior training in psychology or mental health, in this case, students who are enrolled in the introductory psychology course at colleges/ universities, share a similar knowledge level with the general population sample. Although students who took part in the study indicated that they had no prior training in psychology when the
questionnaires were distributed, these students, especially those who had declared major in psychology, have displayed interests in the area of psychology. In order to ensure that students who took part in the study had some prior knowledge in psychology, students were requested to indicate the reasons for selecting psychology as their major in the attached personal information sheet. Majority of the students have expressed interests in understanding human behaviour, others having specified a future career goal, i.e. to become a child psychologist, clinical psychologist, or counsellor. One student mentioned that she has adopted the interest from her father; another expressed interest in hypnosis. Table 9.4.1 summarized the reasons why students decided to major in psychology.

Table 9.4.1
Summary of Reasons for Majoring in Psychology Reported by Students (N=81)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>To understand human behaviour, attitudes, mental processes.</td>
<td>29</td>
</tr>
<tr>
<td>Interests, curiosity.</td>
<td>21</td>
</tr>
<tr>
<td>To learn about individual differences, incl. personality.</td>
<td>6</td>
</tr>
<tr>
<td>To help people with mental disorders.</td>
<td>6</td>
</tr>
<tr>
<td>To become a clinical psychologist/ child psychologist.</td>
<td>5</td>
</tr>
<tr>
<td>Psychologists are in demand in the country.</td>
<td>5</td>
</tr>
<tr>
<td>To understand self and be a better person.</td>
<td>3</td>
</tr>
<tr>
<td>To be a better communicator.</td>
<td>2</td>
</tr>
<tr>
<td>To become a counsellor.</td>
<td>2</td>
</tr>
<tr>
<td>To understand human development.</td>
<td>2</td>
</tr>
</tbody>
</table>
It was hypothesized that students who are currently enrolled in the introductory psychology course would score better than the general population. The students’ scores on the 18 items found in the PMHQ-I was matched with the general public’s scores. Results showed that the student groups scored significantly higher than the general public group $t(831)=3.61$, $p<0.001$, especially on items related to psychology. Table 9.4.2 displays the mean differences between the general public and the students group.

Table 9.4.2

Mean Differences between General Public and Students

<table>
<thead>
<tr>
<th></th>
<th>General Public</th>
<th>Students</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>$SD$</td>
<td>Mean</td>
<td>$SD$</td>
</tr>
<tr>
<td>Total Knowledge</td>
<td>5.37</td>
<td>2.85</td>
<td>6.48</td>
<td>2.40</td>
</tr>
<tr>
<td>Psychology</td>
<td>2.11</td>
<td>1.48</td>
<td>3.57</td>
<td>1.40</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3.26</td>
<td>1.85</td>
<td>2.68</td>
<td>1.62</td>
</tr>
</tbody>
</table>

Following that, a comparison was also made to examine if students enrolled in the introductory psychology course were more familiar with the role of a psychologist, or would know better about what qualifies a psychologist, compared to the general public. Figure 9.4.1 and Figure 9.3.2 provide the overview of their different perceptions.
Figure 9.4.1

Self-reported Familiarity with the Role of a Psychologist by the General Public and Students Enrolled in the Introductory Psychology Course
Perceived Academic Qualification Possessed by a Psychologist by the General Public and Students Enrolled in the Introductory Psychology Course

Figure 9.4.2
From Figure 9.4.1, it can be seen that students enrolled in the introductory psychology course were more likely than the general public to believe that at least an undergraduate degree or a master degree in psychology is necessarily in order to become a psychologist. They were also less likely than the general public to respond ‘I don’t know’. Although the findings indicated that students enrolled in the course at the point of this research were better informed about the training of a psychologist, it is interesting to note that there were more students than the general public who believed that a medical degree is required to become a psychologist. During the survey, students were asked to write the word ‘psychologist in their native language other than English. Surprisingly, many students who answered ‘medical degree’ to the earlier questions have wrote “心理医生” (Psycho-Doctor in Chinese language), ‘Doktor Jiwa/ Sakit Jiwa’ (Mental Doctor/ Psychiatrist in Malay language) in the space provided in the questionnaire.

Although the findings could not confirm that the misconception was due to the mistranslation of the English term ‘psychologist’ to Malay and Chinese respectively, it was clear that the term ‘doctor’ entails much confusion. Students who had a psychologist holding a doctorate degree as course instructor may mistake his/her academic qualification as the instructor would also hold a title of ‘doctor’ which originally mean ‘teacher’ or ‘to teach’. This may explain why more students than the general public believed that a psychologist, especially those who work in the academic setting, holds a medical degree.
9.4.1 Summary

Students who have declared major in psychology generally have some ideas about psychology. A majority of the students have indicated clear reasons why they have picked psychology as their major at the undergraduate level. When the same 18 items in the PMHQ-I were given to these students, they performed significantly better than the general public group. In other words, students who are currently enrolled in the introductory psychology course possessed fewer misconceptions in psychology and mental health even before the classes began.
10.1 Introduction

This chapter provides a discussion of the major research findings, including general public and students’ knowledge and attitude towards psychology and mental health, factors affecting the general understanding and attitudes of psychology and mental health, as well as the health seeking tendency. In doing so, better strategies can be developed to promote mental health and enhance public awareness on the role of psychologists.

10.2 Mental Health Knowledge

Results from the household survey suggested that, overall, the knowledge level of mental health of the general public is considerably low. Ten out of the 18 items in the knowledge scale of the PMHQ-I attempted to measure public understanding of mental health. It was found that less than 10% of the sample correctly answered about half of the items. The mean score of the mental health scale was 3.26, ranging from 0 – 8, while the maximum score of the scale was 10.

The current finding is not dissimilar to previous studies looking at knowledge of mental health using different tools and different population groups (e.g. Lauber et al., 2005; Lauber et al., 2003; Jorm et al., 1997; Geoffrey et al., 1996) where the majority of the studies concluded that lay people generally have a poor understanding of mental illness/mental health issues. The members of the general public were
unable to correctly recognize and identify the mental problems, do not understand the underlying causal factors, were fearful of those who are perceived as mentally ill, had incorrect beliefs about the effectiveness of treatment interventions, and were often reluctant to seek help from mental health professionals. In the present study, of the 10 items, one item attempted to measure public understanding of the term ‘mental health’. Although there is no single formal definition of the term ‘mental health’ (WHO, 2001), it generally means the overall mental well-being, and a person’s ability to function comfortably in a society. From the current finding, less than 20% of the respondents (n=90) correctly understand that the term ‘mental health’ is not limited to merely the absence of a mental disorder. A majority of the respondents viewed mental health as freedom from psychiatric symptoms or did not know the meaning of the term. Recognizing the true meaning of the term can be important to reduce stigma and negative attitudes toward the word ‘mental’. The general public should be made aware that a person with mental health problems may be a person who is currently undergoing a lot of stress or losing the capacity to cope efficiently, not necessarily displaying symptoms of psychosis or neurosis.

The choice of term can be useful in reducing stigma. For instance, Hirosawa (2002) reported that an increase in the number of new outpatients resulted with the change of the department name “Department of Psychiatry and Neurology” (in Japanese, Seishin-Shinkei-ka) of one university hospital in Japan to ‘Mental Clinic’. It was believed that the original department name may be associated with feelings of stigma among patients. Patients were more comfortable with the latter name and reported less stigma and negative self-image as patients in a mental clinic and viewed their illnesses as any other systemic illness (Hirosawa, 2002).
The remaining nine items assessed public understanding of psychiatric terms, i.e. schizophrenia (item 17), public perception of the nature and cause of mental health problems (item 7, 10, 14, and 15), treatment methods (item 12 and 18), treatment outcome (item 16) and help seeking tendency (item 5). Current findings show that approximately 70% of the respondents (n=410) recognized that only a small minority of people with mental health problems seek help from mental health professionals. A similar item was found in Furnham et al. (2003), in which 62% of the 342 respondents agreed to the statement. This implies that the problem of help seeking is not confined to certain culture, but appeared globally in the United States (Mojtabai, Olfson, Mechanic, 2002), United Kingdom (Oliver et al., 2005; Furnham et al., 2003), Australia (Wrigley, Jackson, Judd, Komiti, 2004; Jorm, 2000), Canada (Bourget & Chenier, 2007), just to name a few.

The members of the general public who responded to this study appeared to be less knowledgeable on items in relation to mental health problems and psychotherapy. One of these was the item “A person with schizophrenia is a person with a split personality”, one of the most commonly reported misconceptions about mental health, which only less than 7% of the respondents correctly answered ‘False’.

According to DSM-IV (1994) and ICD-10 (1992), schizophrenia is a psychotic disorder in which an individual’s personal, social, and occupational functioning deteriorate as a result of bizarre perceptions, disturbed thought processes, unusual emotions, and motor abnormalities. DSM-IV (1994) and ICD-10 (1992) call for a diagnosis of schizophrenia only after signs of the disorder continue for 6 months or more. The signs and symptoms of schizophrenia can be divided into positive
symptoms and negative symptoms. Positive symptoms include delusions, thought disorders, hallucinations and movement disorders, while negative symptoms include a reduction of speech or speech content, loss of ability to express emotions, reduced energy and social withdrawal. The term “schizophrenia” is commonly misunderstood to mean that affected persons have a “split personality”. Although some people diagnosed with schizophrenia may hear voices and may experience the voices as distinct personalities, or experience progressive personality changes, schizophrenia does not involve a person changing among distinct multiple personalities.

While the word “schizophrenia” does have a Greek origin which was later translated to “split-mind”, it refers to a disruption of the usual balance of emotions and thinking, or the separation of function between personality, thinking, memory, and perception (Kuhn & Cahn, 2004). To avoid ambiguity, in Japan, the Japanese term for schizophrenia was changed from Seishin-Bunretsu-Byo (mind-split-disease) to Tōgō-shitchō-shō (統合失調症, Integration disorder) to reflect the clinical features of the disorder (Sato, 2006).

In the present study, the term “schizophrenia” was used in the English version of the questionnaire, while the term was translated into “skizofrenia” for the Malay version, and “精神分裂症” for the Chinese version of the questionnaire respectively. These terms are used in the Malaysia Ministry of Health (MOH) website, as well as the Malaysian Psychiatric Association website. When close to 93% of the respondents (n=548) did not correctly answer the item “A person with schizophrenia is a person with split personality”, it was found that among the 548
respondents, 72.1% (n=423) of the participants responded “I don’t know”. More than 50% of these respondents (193 of 223 in total) resided in rural areas, could not understand the word “schizophrenia”, or have expressed that they had never encountered the term. While it was thought that “schizophrenia”, “psychotherapy”, and “psychoanalysis” could be jargons, a simple search was conducted using the Yahoo! search engine using the keywords “Malaysia” and “schizophrenia, psychotherapy, psychoanalysis”. All of these keywords appeared in various articles posted on the Malaysian Psychiatric Association (MPA) website, Malaysian Mental Health Association (MMHA) website, Department of Psychiatry & Mental Health, Hospital Kuala Lumpur website and news archive in different languages, with the aim to disseminate information about schizophrenia and mental health to the general public. Several other studies (e.g. Jorm, 2000; Wolff et al., 1996) reported that many members of the public cannot correctly recognize specific mental health problems and do not understand the meanings of psychiatric terms. This can be worrying as although information about schizophrenia and mental health (including treatment options) is widely available, the general public’s knowledge remains low.

One other possible reason for the general public to agree that a person with schizophrenia is a person with a split personality could be due to the inaccurate media portrayal of schizophrenia. In 2000, the movie “Me, Myself & Irene” was criticized for irresponsibly and inaccurately portraying the symptoms of schizophrenia (Byrne, 2000). Several scenes were found to be misleading. First, Jim Carrey’s character in the movie has two personalities: Charlie and Hank. When Charlie, forgets to take his medication for schizophrenia, he turns into the “aggressive and violent” Hank. This has reinforced two common misconceptions about mental illness: 1) “split
personality” is the synonym of “schizophrenia” and 2) people with mental illness are aggressive and violent. Second, after Charlie became ill, his boss sends him on a week’s holiday, but tells a colleague that he will not be coming back to work. This has indirectly sent out the message that a person with schizophrenia will not be able to recover and return to work. Third, Charlie’s “split personality” was misdiagnosed as “schizophrenia” by the doctor. This can easily create mistrust among the general public towards healthcare professionals and indirectly discourage people in need to seek help. Although many would argue that it was just a comedy, from a mental health perspective, “anything that reinforces the stigma of the illness is unhelpful” (Corry, 2000). Nonetheless, credit should be given to movie makers’ efforts in producing movies with positive depictions of mental illness. Examples of these movies include “The beautiful mind”, “As good as it gets”, and “Good will hunting” (Edney, 2004).

The latter explanation must be taken into consideration as media was reported to be the primary source of information for the item “a person with schizophrenia is a person with split personality” (30%) and “during psychotherapy, patients usually lie on a couch and talk about whatever comes to mind” (44%). Inaccurate information in the media, especially in movies and television programmes, can results in misunderstandings and can have considerable practical consequences, in this case, mislabelling a condition and inaccurate portrayal of treatment option/ method.

It was found that respondents in this study harboured one important misconception that psychological disorders like depression and anxiety disorders do not affect children. Approximately 60% of the respondents (n=341) did not think or
were not aware that children are also vulnerable to mental health problems. It is believed that the tragic death of a 12-year-old girl, who hanged herself over her Ujian Pencapaian Sekolah Rendah examination results (UPSR, a national examination taken by all Standard 6 (12-year-old) students in Malaysia) has brought attention to the mental health status of children in Malaysia. According to Toh et al. (1997), in Malaysia, the age group reported to have the most acute mental health problems was the 10 – 12 year-old age group (15.5%), followed by the 13 – 15 year-old age group (13.4%) (as cited in Teoh, 2004). The one with the least reported mental health problems was the 5 – 6 year group (9.7%). Secondary school students reported higher rates of depression, while primary school children reported higher rates of social problems (Teoh & Peng, 2001, as cited in Teoh, 2004). Stress at school (e.g. the examination-oriented education system, peer pressure) and at home (e.g. parents’ high expectations, conflicts), are among the reasons for the increase in mental health problems among children (Mental Health of Kids Important, 2007). Nonetheless, if the understanding of mental health issues remains low among the general public, lay people may not be able to recognize the symptoms of mental health problems and seek professional help. Misconceptions may also encouraged caregivers to overlook the symptoms displayed by their children resulting in many of the symptoms being mislabelled as misbehaviour.

In accordance with many previous studies (e.g. Furnham, 1992, 1993; Furnham et al., 2003), the present study could not reveal any clear consistent predictor of knowledge of mental health. Neither age nor sex was significant predictors. Participants who reside in urban areas seemed to have significantly better knowledge about mental health, but those with prior exposure to mental health issues (e.g. those
who have or know someone who has a mental health problem or sought psychological assistance) did not seem to outperform others. Ethnic background and religion were the other two predictors for better knowledge in mental health. Both the Chinese and Buddhist seemed to have significantly better understanding of mental health in this study. However, the reason was not clear. Further study is recommended to explore the effect of culture on the understanding of mental health.

10.3 Attitude Towards Mental Health

In the present study, respondents’ attitudes did not differ largely by their demographic characteristics, although respondents reside in urban areas and those with prior exposure tend to have a better attitude towards mental health issues. Individuals with prior exposure to mental health issues included individuals who themselves has had mental health problems or know someone who has/had mental health problems, or sought help from mental health professionals. It is not surprising that respondents belonged to this category had a more positive attitude based on a higher mean score for the attitude scale. According to Corrigan (2000), research has shown an inverse relationship between having contact with individuals with mental health problems and endorsing stigma. However, it is not clear whether contact led to diminished stigma, or whether persons with a more positive attitude towards mental health issues are more likely to seek contact. Nevertheless, when the respondents were asked to elaborate on the nature of the mental health problems that they themselves or people whom they know were suffering, a majority of the respondents chose not to discuss this further. This was contradictory to the initial beliefs that people with prior exposure to mental health issues would show a greater acceptance for mental health
problems in general. On the one hand, these respondents showed less negative attitudes, on the other, mental health issues were treated as a taboo subject for discussion.

Public attitude towards mental health was measured using an 8-item stigma scale adopted from the National Programme for Improving Mental Health and Well Being in Scotland (Glendinning et al., 2002). The eight items measured public perception and attitude towards the stereotypical images of mentally ill individuals, their acceptance and perceived community reaction. The mean score of the 8-items was 18.53, with a possible maximum of 32. It is noteworthy that close to 50% of the respondents did not think that people with mental health problems are often dangerous or violent. This is consistent with past research (e.g. Wolff, 1996), but much lower than the results of a poll conducted by a Columbia University researcher who found that 80% of Americans believe that mentally ill individuals are more likely to be violent (Ganguli, 2000). According to Ganguli (2000), a large amount of carefully collected research data has indicated a weak link between mental illness and violent behaviour.

The majority (76.5%) of the respondents did not think that anyone can suffer from mental health problems because mental health problems are seen as a sin of the past life in some cultures (Swami et al., 2008; Mukalel & Jacobs, 2005) whereas others attributed mental illness to traditional beliefs of karma, demons, and spirits (Edman & Koon, 2000) or the punishment for the ancestors’ misdeeds (Pearson, 1995). People often feel shame, weakness, and helpless (McGorry, 2005). This is particularly true with the Chinese population. According to an interview conducted by
Hampton, Yeung and Nguyen (2007) with 40 Chinese immigrants in New England, ‘consequence of misdeeds in one's previous lives’ was expressed as one of the few causes of mental illness. Most respondents, particularly the more elderly respondents would take mental illness as a shame that they would rather hide to avoid being stigmatized by the community. There is a traditional Chinese saying: “家丑不出外传”, which carries the meaning of “things that will bring shame to the family or jeopardize the reputation of the family should not be discussed with outsiders”. This can easily explain why close to 60% of the participants in the present study indicated that if they suffer from mental health problems, they would not want people to know.

In fact, among the 366 respondents, 92 were Chinese (78% of the total Chinese respondents in this study). In addition, approximately 61% of the respondents also believed that people with mental health problems are largely to blame for their own condition. This percentage is comparatively high when compared to only 13% of the respondents in the United Kingdom who thought that people were to blame for being mentally ill, as reported by Wolff (1996). Again, this may due to the perception that mental illness is the result of a misdeed, and explains why over half the participants disagreed that people are generally caring and sympathetic to people with mental health problems.

Corrigan (2000) suggested that the social cognitive model can be used in understanding how mental health stigma can be developed when a person with mental health problems signals the general public about his/her illness. The signal (cues, e.g. label, physical appearance, symptoms) then yields a stereotype about the person’s condition, and leads to reactive behaviour by the observer (e.g. discrimination). The
relationship between stigma signals, stereotypes, and behaviours is summarized and organized into a model shown in Figure 10.1.

![Figure 10.1](image.png)

**Figure 10.1**

**Relationship Between Stigma Signals, Stereotypes, and Behaviours**

Signals are greatly affected by the stereotypes, and some of the common stereotypical images of mental illness include mental illness is untreatable, people with mental illness are violent, dangerous, or unpredictable, just to name a few. These stigmatizing attitudes may lead to discrimination against persons with mental illness.

Based on the social cognitive model described in Corrigan (2000), the general public’s attitudes were further examined to observe if respondents who agreed to the stigma signal also agreed to the stereotypes of mental illness and to discriminative behaviour. Interestingly, in the present study, over 50% of the respondents (n=309) agreed that a person who has visited a psychologist’s office is a person with mental disorder (label), while 56% of these respondents (n=173) also agreed or strongly agreed that people with mental health problems are often dangerous/ violent, and that it was not easy to talk to someone with mental health problems (stereotypes) (66.3%, n=204). In addition, these respondents also did not think people are generally caring and sympathetic to people with mental health problems (60%, n=185), and people
with mental health problems should not have the same rights as anyone else (discriminative behaviour) (67%, n=207).

This is a disappointing finding as respondents in this study subscribed to the common misconceptions about mental health, which then lead to a negative attitude towards persons with mental health problems and to discriminative reactions. However, it shows the value of the social cognitive model for reducing mental health stigma. Namely, the model describes the path from a signalling event to the reacting behaviour. Each of the elements described in the model may serve as targets of anti-stigma and mental health promotion programmes.

10.4 Help Seeking Tendency/ Behaviour

It has been found that, in general, the respondents in this study responded positively when asked if they would seek help from mental health professionals when necessary regardless of their sex, religion, education background, and their residential location, but age and ethnic background, namely respondents of the younger age group. Malay respondents are more likely to seek help Among the 587 respondents, of which majority of them are Malays (62%), 427 (72.7%) have indicated that they would seek help, 160 (27.3%) have displayed hesitancy. When the 160 (27.3%) respondents were asked to elaborate on the reasons for not seeking help, majority of the respondents provided more than one reason. One hundred and fourteen (19.4%) respondents expressed that they did not know where to seek help; 118 (20.1%) respondents did not want other people to know of their condition. Other factors include financial issue and religious beliefs. Notably, among the 427 respondents who
indicated that they would seek help, 25 respondents (6%) have also mentioned financial issue as one of their concerns. They would prefer not to let other people know (n=13, 3%) and wish to receive more information on where to seek help (n=25, 6%).

An informal discussion was held after the completion of the questionnaire. Interviewers were requested to discuss further with the respondents the item exploring help-seeking tendency. Among the 427 respondents who indicated that they would consider seeking help, when they were asked who they would seek help from, approximately 50% of the respondents (n= 211) answered “doctor” (general practitioners) or hospitals. Less than 10% (n=38) of the respondents claimed that they would seek help from psychiatrists. Psychologist was only mentioned three times. Approximately 12% (n=52) of the participants, of which the majority of them were Malays (n=48) mentioned seeking help from traditional healers, e.g. bomoh, sinseh. Approximately 78% (n=332) of the respondents believed that drugs seemed to be the only treatment, and were concerned with the side effects and the long-term used of the drugs. Three respondents expressed their concerns about the safety and the side effects of Electroconvulsive Therapy (ECT), also known as electroshock, a controversial psychiatric treatment in which seizures are electrically induced in anesthetized patients for therapeutic effect.

Approximately 80% (n=471) of the respondents did not know when it was necessary for them to seek assistance from mental health professionals. This includes individuals who indicated that they would seek help if necessary. A majority believed that only people with serious mental health problems, e.g. schizophrenia, insomnia,
depression; or children with developmental disorders, e.g. autism, ADHD, should seek help from health professionals. A majority would not consider help for stress management, phobia, and other mental health problems which were deemed manageable to them.

The above findings were thought to be useful as it implied that the general public was not well informed about the mental health services in Malaysia and showed a lack of the ability to recognize the need for help seeking. One possible reason for the general public’s preference to seek help from general practitioners could be that visiting a GP’s office is less stigmatizing as compared to visiting a psychiatrist’s or a psychologist’s office. Patients generally feel more comfortable with doctors working outside the psychiatric unit (Hirosawa, 2002). Second, general public, particularly those who reside in the rural area and those with lower academic qualification, may not be able to recognize the symptoms of a mental health problem, or lack of the ability to recognize the need for psychological services. Third, members of the general public who believed that a person with mental illness can never recover may also believed that mental health services are either not effective, or long term treatment is required. In Malaysia, all of the private insurers exclude mental health services from their plans (Deva, 2004). People with existing mental health problems seeking insurance for the first time are likely to find that they are refused insurance. Although certain mental health problems may not require long-term therapy, and majority of the government hospitals offered mental health services at reasonable and affordable fee, financing mental health services can still be a burden to many families.
10.5 Relationship Between Knowledge, Attitude and Prior Exposures

In the present study, it was found that attitudes towards mental health are not related to their knowledge level. Although previous studies have found that negative attitudes are associated with a lack of knowledge or understanding in mental health (e.g. Kabir et al., 2004; Jorm et al., 2000; Wolff et al., 1996), much research has also shown that well-trained professionals, including mental health professionals and medical students subscribe to stereotypes about mental illness (Lauber, Nordt, Braunschweig, & Rossler, 2006; Sriram & Jabbarpour, 2005; Chew-Graham et al., 2003). This suggests that knowledge and attitude do not necessarily go together.

Prior experience/exposure to mental health issues was also found to be unrelated to knowledge level, attitude and help-seeking tendency. However, it is important to note that less than 5% of the respondents (n=29) in the present study indicated that they themselves or they knew of someone who had had mental health problems, as compared to Wolff et al. (1996), in which 80% of the respondents knew of someone who had had a mental health problem, and 36% reported in Wrigley et al. (2005). The small number of respondents belong to this group in the present study may not be able to clearly illustrate the relationship.

10.6 Knowledge and Attitude Towards Psychology

When examining public perception of the psychology profession, it is interesting to note that although approximately 66% of the participants believed that psychology is a science, more than 50% of the participants agreed that psychology is
simply common sense. While only less than 15% of the participants were able to discriminate between a psychologist and a psychiatrist, when the participants were asked the minimum academic qualification that a psychologist possesses, only 6% of the participants thought that a psychologist possesses a MBBS degree. In other words, members of the general public may not even know what academic qualification a psychiatrist has. Perhaps, the seeming inconsistency in responses should not be surprising given the diversity of perspectives and activities within the field of psychology. As psychologists continue to make inroads into territory once wholly under medical psychiatric jurisdiction (e.g. drug prescriptions), the public’s task in differentiating psychology from psychiatry should become more difficult, not easier (Murstein & Fontaine, 1993). Moreover, if the general public’s perception of psychology’s focus is limited to only clinical psychology rather than on psychology in general, the majority of respondents perceived only modest or little difference between psychiatry and psychology. That could be the reason why close to 42% of the respondents thought that all psychologists work with people with mental illness. Nonetheless, 40.5% of the respondents (n=238) recognized that psychologists do work outside healthcare settings, where psychologists do help in improving work environment and staff morale.

Although many times psychologists predict a person’s behaviour based on observations and interpretations, psychologists do not tell a person’s future, nor read into a person’s mind. However, due to the mythical image attached to the profession, one of the common misconceptions, “Psychologist reads people mind”, was predicted to be one item which most respondents would answer ‘true’. As predicted, less than 20% (n=100) of the respondents correctly rejected this common misconception.
Approximately 50% of the respondents answered ‘true’, whereas 36% of the respondents did not know the answer to the item.

Turning to public attitude towards mental health, a relationship was found between having previously learned about psychology and perceiving psychologists more favourable. However, the mean score for the attitude scale indicated that the attitude towards psychology issues was only slightly skewed to the positive side. This has indicated that respondents generally subscribe to a more or less neutral attitude towards the profession.

In short, the following hypotheses were only supported partially by the current findings:

Hypothesis #1: Demographic factors (i.e. age, sex, religion, ethnicity, residential location) affect respondents’ attitudes and understanding of psychology and mental health.

Hypothesis #2: There is a relationship between prior exposure to psychology, people with mental health problem(s), mental health professionals and attitude and understanding of psychology and mental health.

Hypothesis #3: Greater knowledge, prior exposure, personal experiences are positively correlated with a more positive attitude towards psychology and mental health.
A greater knowledge level did not seem to predict a more positive attitude toward psychology and mental health. Although much research, e.g. Wolff et al. (1996) found that negative attitudes towards mental health problems are associated with lack of knowledge, as discussed earlier, the findings in this study were not able to confirm any relationship between knowledge and attitude due to the low knowledge level the general public possessed. Certainly, it can also be argued that the knowledge-based questionnaire (Part II of the PMHQ-I) designed for this study has its limitations. Since the study conducted by Vaughn (1977) using the “Test of common beliefs”, until the recently developed “McCutcheon Test of Misconceptions (MTM6)” by McCutcheon (1996), much improvement has been made to omit ambiguous items (Furnham et al., 2003). Different test formats were used, i.e. true-false format (e.g. Vaughn, 1977), multiple-choice testing format (e.g. McCutcheon, 1991), true-false format with an additional option – “don’t know” (e.g. Taylor & Kowalski, 2004), to prevent the participants from guessing for the right answers. Although these tests have been used extensively in research, none of these tests is free from criticism.

The questionnaire used in this study has taken into account many of the suggestions mentioned in previous studies. The ‘don’t know’ option was included to prevent respondents from guessing, jargon was avoided, imprecise terms such as “sometimes”, “few”, or “many” have also been avoided. All items were reviewed by a team of psychology and allied health sciences instructors, psychology students, and non academics. The questionnaire was piloted with 80 respondents aged 18 and above. Kuder-Richardson Formula 20 (KR 20) was used to establish the reliability of the knowledge scale. Results indicated that the knowledge scale has a relatively high internal consistency of 0.736. Cronbach’s alpha was also run on the attitude scale
indicating relatively high internal consistency, $\alpha = 0.723$. Generally, the questionnaire designed for this research is reliable based on the acceptable internal consistency and is valid for the Malaysian population.

Secondly, the face-to-face interview has imposed certain restriction in terms of the number of items that we could include in the questionnaire. For various reasons, e.g. security reason or too busy, many participants found the interview too long, and several participants became impatient and refused to complete the interview. One of the respondents was reluctant to respond to the questionnaire and was curious if she was approached because she has been identified as mentally ill. Although generally all respondents were reluctant to answer questions when the interviewers first approached the household, a majority of the respondents became very friendly and cooperative after the objectives of the survey were explained. The use of a face-to-face interview is believed to have an advantage because it allows greater flexibility. The respondent can obtain clarification when questions are unclear and the trained interviewer can follow up incomplete questionnaires. Researchers could also try to learn from the respondents more about the reasons for the attitudes or opinions that they hold. Furthermore, face-to-face interviews also provide respondents with room to elaborate on certain issues, although the majority of the respondents refused further discussion. Nonetheless, due to the limited time interviewers could spend with each household, a structured questionnaire is highly preferred over a semi-structured questionnaire which might generate more qualitative data.

Nevertheless, several respondents were very eager to share some of their personal experience with the interviewers. For instance, when one of the respondent
was asked if she believed that people are generally caring and sympathetic to people with mental health problems, the respondent began to share her personal experience with a relative and said “Tidak, orang hanya ambil berat pada ahli keluarga sahaja, orang lain, tidak...” [No, people will only care for a family member, not other people]. When asked whether people with mental health problems are often dangerous/ violent, the respondent answered “…hanya bila orang lain kacau, jika tak kacau, tak akan jadi ganas...” [Only when other people provoke, if not, (the person with mental health problems) will not be dangerous/ violent].

One centrally important issue in this study concerns the relationship between knowledge, attitude and a help seeking tendency. Hypothesis #4 predicted that greater knowledge, prior exposure, personal experiences, and positive attitudes are likely to lead to greater levels of willingness to seek help from mental health professionals when necessary. The findings, however, revealed that attitudes were the only variable to have a significant influence on the respondents’ help seeking tendency, along with respondents’ age and ethnic background. As indicated, although a majority of the respondents (72.7%) indicated that they would seek help when necessary, an equally large number of participants expressed that they did not know when it is necessary for them to seek help from mental health professionals. Although this research did not find any relationship between knowledge, prior exposure to mental health issues and help seeking tendency, it is also important to note that public knowledge about psychology and mental health were fairly low. Furthermore, with less than 5% of the respondents having indicated that they themselves have/ had, or they know someone who has or had mental health problems, it is not possible to draw a conclusion based upon current findings. Future research is recommended to include respondents, who...
had themselves or know someone who had sought help from mental health professionals to compare their attitudes toward help seeking and mental health services in Malaysia.

10.7 Students’ Knowledge About Psychology

In the second part of the study, additional items were added to PMHQ-I to form a new questionnaire, PMHQ-II. The purpose of doing that was to examine if students who are currently enrolled in an introductory psychology course would outperform the general public in providing more accurate answers to the items. Further, a pre- and post-course survey was expected to provide indication if students’ misconceptions about psychology and mental health can be dispelled after completing the introductory psychology course. Hence, the additional items were drawn from different topics of major psychology reference texts. The results of this part of the study supported Hypothesis #5 – “Students currently enrolled in a psychology course have better knowledge of psychology and mental health than the general public”. This result is contrary to Furnham et al. (1996) who found no significant difference between the general public and the student group.

The findings also supported Hypothesis #6 – “The introductory psychology course enhances students’ understanding of psychology and mental health”, which was consistent with past research, e.g. Thompson and Zamboanga (2003) and Taylor and Kowalski (2004) which utilized the pretest and posttest design, where introductory psychology students were given a pretest early in the semester followed by a posttest during the last week of the semester, both studies found that students
generally performed better in the post-test, in other words, some of the misconceptions were dispelled. In the present study, a longitudinal study was conducted to observe 83 students’ performance prior to and upon completion of the introductory psychology course. The 83 students who took part in this study performed rather poorly on the pre-test ($M=13.37$, $SD=3.89$, ranging from 5 to 22 correct answers with a maximum total of 36), but their performance improved significantly ($t(82)=17.79$, $p<0.001$) on the same questions during post-test ($M=22.12$, $SD=4.35$, ranging from 10 to 32 correct answers), which suggests strengthened student understanding as the result of the introductory psychology course.

Nevertheless, several important points should be noted. First, it should be noted that of the 246 students who have taken part in the pre-test, only 83 students took part in the post-test. This makes up only about 30% of the original sample. The pre-test was meant to gather students’ understanding of psychology prior to any formal training in psychology; the questionnaire was distributed during the first day of class. However, as most colleges and universities would allow students to withdraw from a course without penalty within the first two weeks of classes, many students who took part in the pretest withdrew from the course. In addition, as it was not possible for the researcher or the instructor to monitor students’ attendance on the last day of class, when the posttest was conducted, many students did not present. This contributed to the low response rate in the posttest. However, it would have been useful if PMHQ-II could be administered to the group of students who had withdrawn from the introductory psychology course. This would provide the opportunity to find out if students who did not attend the introductory psychology course would perform equally, better, or worse than the score obtained at the pretest.
Second, students from four institutions were invited to participate in this study. In Malaysia, all curricula designed and delivered in private higher learning institutions are accredited by the Malaysian Qualifications Agency (MQA, formerly known as the National Accreditation Board). Although all four of the colleges/universities that participated in this study are designated as English speaking institutions, where the medium of instruction is English, the four instructors possessed different academic qualification, adopt different reference text. The instructors might also have varied in terms of their delivery method and teaching style, although students from these four institutions did not differ significantly in terms of their improvement following the completion of their introductory psychology course \(F(3, 79)=1.032, \ p=0.383\). Hence, it was not possible to conclude that the better performance during the posttest was solely due to the introductory course. The achievement could be due to students’ personal interest, active participation in class, or other personal resources. In addition, it could be that students who took part in the longitudinal study may already have a stronger interest in psychology. This can also explain why they were present on the last day of class for the post-test, and other students were not. Nonetheless, when analysis was conducted to compare pretest scores of students who were available for the posttest and of whom were not available for the posttest, no statistically significance was found, \(t(244)=0.589, \ p=0.556\).

Third, the study indicated that students generally gained knowledge about psychology and mental health through reading materials, such as psychology textbooks, newspapers, and many expressed that they knew the information from classroom knowledge. This is very different from the general public, who specified movies, television programmes, and newspapers to be the primary sources for
information on psychology and mental health. Although Hypothesis #7, the source where a person learned a misconception from would affect the likelihood of the misconception being dispelled after attending the introductory psychology course, was not supported, the findings provide a better idea to psychologists on how information about psychology should be disseminated to the general public in order to demystify the profession.

Although the findings may not be able to confirm the success of the introductory psychology course in enhancing students’ understanding in psychology and mental health, the results showed that misconceptions can be dispelled and knowledge about psychology and mental health can be increased. Based upon information gained from this research, a need to investigate effective ways to improve the perceptions of psychology and mental health, including classroom pedagogies, seems to be an important one.

10.8 Implications and Recommendations

1. Public Education About Psychology and Mental Health

To improve public knowledge about psychology and mental health, information should be disseminated through the right medium. The mass media (e.g. TV programmes, movies, newspapers) can bear some responsibility for reducing public misconceptions about mental health by not reporting inaccurate negative images and stereotypes about mental illness. Furthermore, the media is a dominant influence in the modern world – it has been identified as the primary source for
information about mental illness for Americans (Granello, 1994), as well as for the general public who have responded to this study. Some of the recommendations include reporting success stories of individuals who have undergone treatment for mental health problems and individuals who are currently living with mental health problems. The ‘voice’ of those who have been affected by mental health issues must be prominent in order to counteract negative perceptions (Scheffer, 2003). In doing this, the general public would receive the message that people who have/ had mental health problems can live normally just like anyone else, to dispel the misconception that they currently possess that mental health patients do not recover.

Making sense of scientific research findings in relation to mental health has great practical importance as it is always the lay rather than professionals’ conceptions of mental health problems that determine whether professional help is sought by those affected (Haslam, 2003). While mental health professionals can facilitate public awareness by translating research findings into plain language, public education should also be conducted using terms in which people are comfortable with (Bourget & Chener, 2007). Because of the public’s resistance to associate common mental health problems with illness, it has been suggested that educational and awareness campaigns should limit the use of language linking common mental health problems with illness, sickness and disease. Evaluations showed that public campaigns using key messages such as “depression is a severe illness” were found to be ineffective, but “depression is common and likely to affect every family” was more acceptable and successfully increased public awareness (Hickie, 2004).
In Malaysia, attempts to promote mental health awareness among the general public have been launched by the Ministry of Health, as well as some non-profit organizations and for-profit private organizations. In 2000, mental health was selected to be the theme for the annual Healthy Lifestyle campaign. The campaign was targeted at individuals of all age groups and socioeconomic status. Public talks and seminars were also conducted from time to time to increase public awareness (Malaysia Mental Health Association, 2008). Various corporations, e.g. McDonald’s, Amway (Malaysia) Sdn Bhd are highly committed to long-term social responsibility. In 2005, Amway (Malaysia) Sdn Bhd launched a community service campaign entitled ‘One by One’ to focus on promoting positive mental health in children. Children’s camp and workshops were organized to encourage children to make new friends; seminars and workshops were also conducted by clinical and developmental psychologists to educate parents and caregivers on issues impacting children’s mental health. In addition, awareness campaigns and health lifestyle campaigns were also launched by the Malaysian Psychiatric Association and Malaysia Mental health Association in conjunction with the World Mental Health Day annually on October 10.

Help seeking can be influenced by how people define a problem, and what they perceive to be the cause and the anticipated prognosis (Angermeyer & Matschinger, 1999). In order to promote better understanding and the ability to recognize specific mental health problems, common mental health problems, including early signs and symptoms, interventions and resources, fees, outcomes, and coping strategies should be introduced to the general public. Although some 200,000 leaflets covering 13 various topics inclusive of mental health, mental illness, mental
health for children, misunderstanding of mental illness, stigma, etc. were produced and distributed between 1997 and 1998, when members of the general public were asked during the interview if they have ever seen any mental health promotion materials around, close to 95% of the respondents were not aware of the presence of such materials. Nonetheless, it was believed that hospitals and clinics are places where mental health promotion materials should be made available, however, several hospitals and clinics were visited during the time of this research and no posters or pamphlets (particularly those in relation to mental health) could be found. Many of the display racks were empty (Appendix 10.1). Promotional materials should be well organized and replenished as often as possible.

Moreover, the majority of the respondents who responded to this study would not like other people to know that they have mental health problems; this may also explain why people do not obtain or read information about mental health problems. As such, the internet can be a useful source of health information and interactive self-help interventions as it reduces social and attitudinal barriers.

In this study, the internet was not a popular source for information on mental health issues. This, however, does not allow the conclusion that the general public does not obtain information other than mental health problems from the internet. With much promotion, the internet has the potential to play a significant role in improving mental health literacy. At present, the Malaysian Mental Health Association, Malaysian Psychiatry Association, and the MOH have informational websites in different languages to disseminate mental health information to the general public. However, due to the lack of publicity, members of the general public were not aware
of the availability of such information. Quality websites related to mental health should be announced through other media, e.g. newspapers, radio, in between television programmes, to encourage public access.

With regards to the knowledge about psychology and the role of a psychologist, several campaigns introduced in the West can be used as references. In 1999, a weekly radio programme for children and preteens, *KidTalk With Dr. Mary – The Call-In Task Show Just For Kids*, was implemented in California, United States of America. The program not only uses a preemptive intervention strategy by educationally interweaving psychological principles with personal reference, but also introduces general-interest topics or subject matter to families, schools, social, or community life (Lamia, 2006). Young listeners were invited to call in and respond to structured questions. This radio programme has indirectly increased children’s and preteens’ understanding of psychology and of the role of a psychologist. However, as many respondents from the present study did not know what academic qualification a psychologist normally possesses, it is recommended that all psychologists who appear in the mass media should disclose their credentials to the general public. The establishment of a regulatory body for all practicing and academic psychologists is also crucial to monitor psychologists’ activities and promote psychology. At present, the Malaysian Psychological Association (PSIMA) is believed to be the only psychological society in Malaysia, however, PSIMA is not involved in licensure and certification. Registration to PSIMA is not compulsory for all psychologists. Unlike counsellors who are bound by the Counsellors’ Act (580), there is no official statutory regulation of the practice of psychology in Malaysia.
Public education may not be limited to only information dissemination. In Germany, the Nuremberg Alliance Against Depression Campaign sought to inform the public about the causes and treatment of depression using educational materials, and the media and contests. Post-campaign evaluations showed that public awareness of the campaign was fairly high and there were some changes in attitudes (Hegerl et al., 2003). Similarly, contests and quizzes in relation to psychology can also be conducted to promote the general public’s participation in finding out more about the profession. At present, information about psychology is at times presented in the newspaper or magazines by universities and colleges that offer a psychology degree, on the one hand to promote or market their programme; on the other to increase public awareness about the profession. Interactive sessions, e.g. Question and Answer sessions and quizzes are also conducted during certain education and career fairs. The target audiences are mainly prospective high school or pre-university graduates and parents. Such awareness campaign can certainly be extended to increase public awareness about the psychology profession.

2. Formal Training in Psychology

The greatest challenge many psychology instructors face may not be teaching students new information, but teaching them that what they already believe to be true about psychology is often wrong (Chew, 2004). A large body of literature on schema and learning has shown that misconceptions have a great impact on further learning. One’s schema, or belief system can have a major impact on what is noticed, what is learned, what is forgotten, and how memories may become distorted. In class, students bring with them a wide array of misconceptions and misunderstandings that
many, if not most, can be remarkably resistant to change. Although findings in the present study showed that students’ knowledge about psychology and mental health improved upon the completion of the introductory psychology course, the impact of the introductory psychology course was small.

Following a discussion with the introductory psychology course instructors from the four universities and colleges who took part in this study, at present, quizzes (in the form of Multiple-choice-questions or True/False questions) are sometimes administered in-class or assigned as take home exercise after each chapter to strengthen students’ understanding of the topics introduced. The objective of administering the quizzes however does not focus on reducing students’ misconceptions. To reduce the misconceptions, Winer et al. (2002) suggested a process called “activation” to counter misconceptions. Activation involves alerting students to misconception before presenting the relevant accurate information. One method of achieving activation is through the use of examples that are engaging, relevant, and makes clear the shortcomings of any misconceptions. Hence, it is important for the misconceptions to be identified prior to the delivery of new, accurate information. Narloch, Garbin & Turnage (2006) suggested that prelecture quizzes, i.e. quizzes administered prior to lecture, may be useful in improving students’ performance and satisfaction. One hundred and sixty two students were randomly assigned to two quiz groups (matching and fill-in-the-blanks) and a control group (no quiz). Results indicated that both quiz groups outperformed the control group on exam performance. Students also rated the lectures as a better preparation for exams and as more clear and organized. As such, the questionnaire used in this study may be revised and adopted for this purpose.
The use of refutational text was also suggested by researchers, e.g. Hynd & Alvermann (1986) and Palmer (2003). Palmer (2003) conducted a study to identify the type of conceptual change (assimilation or accommodation) that can be induced by a refutational text. Individual interviews were carried out with a stratified sample of eighty-seven grade 9 students. Forty-four percent of them were found to have a misconception about the concept of ecological role—they believed that some living things do not have a role in nature. These 36 students were asked to read either a text that refuted the misconception, or a control text that consisted of a didactic explanation of ecological role. They then participated in an immediate posttest and a delayed posttest. Palmer (2003) found that both texts were able to induce accommodation in a large proportion of the students.

Classroom demonstration may also help introductory psychology students overcome the misconception that psychology is just common sense and lacks scientific foundation. Osberg (1993) used Festinger and Carlsmith’s (1959) classic cognitive dissonance experiment and ask students to guess the outcome of the study. Because the vast majority of the class guessed an intuitive outcome, students were surprised with the counterintuitive findings. This presentation provides a powerful demonstration that psychology is not just common sense – stimulates lively discussion and capture students’ interest.

Of course, one way to prevent early misperception of psychology is to introduce psychology at a very young age. To promote early exposure to basic psychological concepts and the impact of psychology in our daily lives, psychological knowledge can be incorporated into the education curriculum (e.g. classroom
readings, extracurricular activities) beginning from primary school, in which some has already been incorporated in the moral and science subject. Parents may also encourage young readers to read psychology books for children in relation to emotion, coping strategies, friendship, etc. in addition to the classroom readings. Examples of psychology books for children can be found in an online catalogue by Magination Press (http://www.maginationpress.com/).

3. Psychologists as Mental Health Professionals

As discussed, psychologists are engaged in a variety of activities. In response to one of the most frequently asked questions by all prospective psychology students, and even psychology graduates, “What can I do with a bachelor’s degree in psychology”, the simplest answer is that knowledge of psychology can be applied to virtually any career as the field of psychology is essentially the study of people. However, the answer does not help the general public to appreciate what psychologists really do, let alone how psychologists could contribute to the health care.

In a recent review of the psychology’s current training models in Canada, Linden et al. (2005) argued that curriculum review and revision is needed to solidify psychology as a true health care profession. The training in psychology needs to be continuously matched to ongoing changes in the health care delivery system. Besides proper training, government and professional bodies involved need to continuously inform the public about psychology and services provided by psychologists. The word “doctor” should also be discouraged to be used as a professional descriptor for
physicians because it undermines public perception as professionals who have earned their doctorate titles. These suggestions by Linden et al. (2005) can certainly be used for future references for the training of psychologists as mental health professionals in Malaysia.

10.9 Limitations of the Present Study and Future Direction

There are several limitations to the present study which should be taken into consideration for future research.

1. The present study undertakes to explore the public’s understanding and attitude towards the psychology profession and mental health in general. One reason was to identify where general public obtained information about the aforementioned, second was to identify how demographic characteristics affect a person’s beliefs, attitudes and help-seeking decisions. As such, the questionnaires designed for this study consist of questions in relation to psychology and mental health in general. Continued research is suggested to examine public knowledge and attitude towards specific mental health problems (e.g. depression, schizophrenia) and the different subfield in psychology (e.g. educational psychology, consumer psychology).

2. Nevertheless, the household survey focused on public perceptions of psychology (mostly on the role of a psychologist) and the general public’s knowledge about mental health. The main purpose was to determine if the general public understand the term “mental health” as general wellbeing, rather than the absence
of mental illness. Hence, in order not to lead the respondents to believe that the survey was to determine their understanding of mental illness, the questionnaires did not include items requiring respondents to indicate their beliefs about the aetiology of specific mental illness. The current findings seem to suggest that the general public lacks the ability to recognize signs and symptoms of mental health problems. This can be important especially to examine the reasons behind help-seeking decisions. Although only a handful of the respondents have indicated that they would not seek help due to religious beliefs, respondents who answered ‘doctor’ when asked about who they would seek help from may not necessarily refer ‘doctor’ to mental health professionals, or understand the treatment options available. Future study is suggested to look into this matter.

3. In addition to the advantages and disadvantages that a personal interview can entail stated earlier, a social desirability effect should also be taken into consideration. Respondents may try to give ‘desirable’ answers, placing themselves in line with social trends and what is acceptable. Although measures such as reassuring respondents about confidentiality, such effects cannot be avoided entirely. It is hence recommended that a survey be conducted with mental health professionals in Malaysia to explore their experience on how the general public perceives mental health.

4. The household survey was conducted only in the Klang Valley (both urban and rural). The Klang Valley comprises Kuala Lumpur (the capital city of Malaysia) and its suburbs and adjoining cities in the state of Selangor. Malaysia has 13 states and 3 federal territories, in which each state has different demographic
composition. To take the Malay ethnic group for example, Malays contribute to 55% of the population in Klang Valley and Perak (similar to the country population composition), 95% in Terengganu, but only 11.5% in Sabah. With adequate financial support, the study should be conducted in all states, both urban and rural areas, to strengthen the result generalization.

10.10 Conclusion

The present findings indicated that members of the public generally do not have good knowledge about psychology and mental health. In terms of attitude, the majority of the respondents portrayed neither positive nor negative attitudes toward the psychology profession, mental health issues and help-seeking.

Although the present study revealed no clear relationship between knowledge, attitude and help seeking tendency, it is thought to be important that the general public should be empowered to recognize the importance of mental health, the symptoms, treatment for mental health problems, and the need for help seeking. Only when the public is capable of identifying the need for help seeking can more positive attitudes toward help seeking and mental health professionals be promoted. The stigma attached to mental health problems and individuals with mental health problems can also be improved.

The present study also could not reveal any clear consistent predictor of the abovementioned. Nonetheless, respondents who reside in the rural area, with lower academic background seemed to have lower knowledge as compared to their
counterparts residing in the urban area. As no difference was found between respondents from urban and rural area in where they obtained information in relation to psychology and mental health, television, radio, and newspaper are among the few media where information can be disseminated to the general public. While many respondents were not aware of any mental health promotion campaign launched in the country, this may give campaign organizers an important indicator that the publicity of such programs is not aggressive enough and may not reach all members of the public, e.g. those who reside in the rural area. Target audiences should be identified, participants’ ethnic and religious background, education level and prior knowledge should also be taken into consideration when designing the campaign. Campaign evaluation should also be conducted.

It was found that despite some common misconceptions, students who are enrolled in the introductory psychology course generally have a better idea about psychology, but not mental health issues. However, upon completion of the course, the majority of the students who took part in the study improved significantly, indicating that some of the common misconceptions about psychology could be dispelled through formal training. Hence, it is important for instructors to be aware of the misconceptions that students bring with them into the course. This would include preparing students for the right attitude and realistic expectation from the psychology career. In addition, if misconceptions could be corrected through formal training, knowledge in psychology and mental health should be imparted to the general public as early as possible, e.g. to be incorporated into the school curriculum. Compulsory education in Malaysia spans a period of 11 years and comprises both primary and secondary education, while psychology is introduced only at the tertiary level. This
could be the reason why the respondents with a higher education level (i.e. tertiary education) in this study who have had some training in psychology possessed fewer misconceptions about psychology.

This study has implications for the promotion of the understanding of the general well-being, and the importance of help seeking. With better understanding the nature of a psychologist’s role as a mental health professional and the scientific basis of the field, general public may have an additional resource for help seeking besides psychiatrists, counsellors, and other healthcare professionals.
REFERENCES


**Appendix A**

Email discussions summary on public perception of psychology and mental health

**Date:** July 31 – August 12, 2006

**Members:**
- Dr C (Social sciences lecturer)
- Mr R (Psychology lecturer)
- Ms N (Psychology lecturer)
- Mr B (Psychology/Mass Communication lecturer)
- Mr K (Sociology/Mass Communication lecturer)
- Ms PL (Undergraduate psychology student)
- Ms LWY (Undergraduate psychology student)

<table>
<thead>
<tr>
<th>Items (Questions)</th>
<th>Responses (Opinions and Ideas)</th>
</tr>
</thead>
</table>
| 1. Public perception of psychology | - Psychology is simply common sense  
- Psychology is the study of mental illness  
- Not sure what psychology is, but it has to do with behaviour  
- People who study psychology study have a 6th sense  
- People study psychology in medical schools  
- The field is very mysterious  
- Motivation training  
- Playing with people’s mind/persuasion  
- Interesting field but very difficult  
- For ‘Art’ people, not like engineering about ‘facts’ |
| 2. Public perception of psychologist | - They are mental (health) professionals  
- Psychologist reads people mind  
- Psychologists work with people with mental disorders, work in hospitals  
- Some people questioned if it is true that swinging a pocket watch in front of a person can actually ‘hypnotize’ a person and make the person talk  
- No job opportunities for psychology graduates  
- Psychologist is equivalent to a psychiatrist  
- Psychologists are doctors  
- Psychologists work with patients lying on the couch  
- Not sure what a psychologist do  
- Not sure what qualifies a psychologist – most believe psychologist needs a medical degree  
- They assess IQ and personality |
<table>
<thead>
<tr>
<th>Items (Questions)</th>
<th>Responses (Opinions and Ideas)</th>
</tr>
</thead>
</table>
| 3. Public perception mental health/ mental illness | - Mental health is defined as no mental illness  
- Mental illness cannot be cured  
- Psychiatric treatment is very expensive  
- Medication has side effects  
- Psychiatrists make patients talk  
- Once a person started on medication, this person will have to continue taking it  
- Mental illness is hereditary  
- Not many people seek help because of financial issue stigma  
- Similar to those in “Psycho” (movie) |
| 4. How people describe people with mental illness | - They are bizarre, unpredictable (scream)  
- They talk to themselves  
- Difficult to talk to them  
- They walk around, homeless, dirty  
- They injure themselves (head banging)  
- Some are violent (carry knives)  
- Cannot think rationally  
- They have a split personality  
- People with mental illness live in their own world, they do not listen to other people  
- People with mental illness does not admit to their problem  
- They are helpless, cannot take care of themselves |
| 5. Public reactions to people with mental illness | - Stay away from them  
- Ignore them  
- Feel scared  
- Feel sympathy to people around the person with mental illness  
- Children may run away or feel scared |
| 6. Public perception of the cause of mental illness | - Hereditary  
- Stress  
- Hormone imbalance  
- Trauma/ head injury  
- Ancestor’s misdeed, punishment from God  
- Family/ relationship problems |
| 7. Where do general public receive information about psychology | - Not sure, not too many people know what is psychology  
- Education fair/ magazine – have seen the word ‘psychology’ but not sure what it is all about, always mistaken as ‘psychiatry’  
- Media – Movies/ TV series/ newspaper/ internet |
| 8. Where do general public receive information about mental health/ mental illness | - Learned about eating disorders, suicide and depression from newspaper  
- Learned about psychiatric treatment and hypnosis from movies  
- Learned about ‘split personalities’ from movies  
- Health magazine (mostly about stress) |
Appendix B

Appendix B1. Psychology and Mental Health Questionnaire – I (English version)
Appendix B2. Psychology and Mental Health Questionnaire – I (Malay version)
Appendix B3. Psychology and Mental Health Questionnaire – I (Chinese version)
Appendix B4. Psychology and Mental Health Questionnaire – II
### Appendix B1: Psychology and Mental Health Questionnaire  
(English version)

#### PART I: Personal Information

1. **Age**:  
   - Office use

2. **Sex**:  
   - 1 Male  
   - 2 Female

3. **Race**:  
   - 1 Malay  
   - 2 Chinese  
   - 3 Indian  
   - 4 Others: ________________

4. **Religion**:  
   - 1 Islam  
   - 2 Buddhism  
   - 3 Hinduism  
   - 4 Christianity  
   - 5 Others: ________________

5. **Are you currently working?**  
   - If **Yes**, please specify occupation: ________________
   - If **NO**, please select:  
     - 1 Not working  
     - 2 Housewife  
     - 3 Student

6. **What is your highest obtained education level?**  
   - 1 Postgraduate (Masters/ PhD)  
   - 2 Undergraduate  
   - 3 Diploma  
   - 4 Pre-University  
   - 5 Secondary (To Question 8)  
   - 6 Primary (To Question 8)  
   - 7 Others: ________________

7. **Have you ever attended a psychology course in college/university?**  
   - 1 Yes  
   - 2 No

8. **Have you/ anyone you know ever been told by a health professionals (e.g. doctor, psychiatrist) that you/ they had mental health problem(s)?**  
   - 1 Yes (To Question 9)  
   - 2 No (To Question 10)

9. **If **Yes**, please specify what problem**: ________________

10. **Have you/ anyone you know ever seek psychological services?**  
    - 1 Yes (To Question 11)  
    - 2 No (To Question 14)

11. **If **Yes**, please specify**:  
    - 1 Psychologist  
    - 2 Psychiatrist  
    - 3 Others: ________________

12. **Reason**: ________________

13. **When**: ________________

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14 If No, which of the following explain(s) your decision? (You may check more than one)

- No reason to seek psychological services
- Do not know where to seek psychological services
- Do not want other people to know
- Fee/ No insurance coverage
- Not serious – I can handle
- Religions belief
- Too busy
- Others:

15 How familiar are you with the work psychologists do?

- Very unfamiliar
- Unfamiliar
- Familiar
- Very familiar

16 What is the minimal qualification necessary to become a psychologist?

- Some undergraduate courses in psychology
- Bachelors in psychology
- Masters in psychology
- Medical Doctor degree
- Doctorate in psychology
- I don't know

PART II: For each item, kindly indicate true/ false and how/ where you learned the information (SOURCE)

<table>
<thead>
<tr>
<th>M</th>
<th>Media (TV Programme, Movie)</th>
<th>C</th>
<th>Classroom knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Reading materials (Books, Newspaper, Magazine)</td>
<td>H</td>
<td>Health professionals (Doctor, Psychiatrist, Psychologist)</td>
</tr>
<tr>
<td>P</td>
<td>Personal experience</td>
<td>D</td>
<td>Cannot remember the source</td>
</tr>
<tr>
<td>I</td>
<td>Internet</td>
<td>O</td>
<td>Other (Source)</td>
</tr>
</tbody>
</table>

1 Psychology is a science.

- True
- False
- I don’t know

2 All psychology students study hypnosis in class.

- True
- False
- I don’t know

3 Hypnosis does not work on everyone.

- True
- False
- I don’t know

4 Psychologists study behaviour and the mind, but not biology.

- True
- False
- I don’t know
5 Only a small minority of people with psychological problems seek help from mental health professionals today.

   ① True          ② False          ③ I don’t know
   Source of this information

6 The titles “psychologist” and “Psychiatrist” refer to the same profession.

   ① True          ② False          ③ I don’t know
   Source of this information

7 Eating disorders (e.g. anorexia nervosa, bulimia nervosa) are psychological disorders.

   ① True          ② False          ③ I don’t know
   Source of this information

8 All psychologists work with people with mental illness.

   ① True          ② False          ③ I don’t know
   Source of this information

9 Psychologists can help an organization in modifying the work environment to maximize productivity and morale of staff.

   ① True          ② False          ③ I don’t know
   Source of this information

10 Psychiatric disorders are true medical illnesses like heart disease and diabetes.

   ① True          ② False          ③ I don’t know
   Source of this information

11 Mental health is defined as the absence of mental disorders.

   ① True          ② False          ③ I don’t know
   Source of this information

12 During psychotherapy, patients usually lie on a couch and talk about whatever comes to mind.

   ① True          ② False          ③ I don’t know
   Source of this information

13 Psychologists read people’s mind.

   ① True          ② False          ③ I don’t know
   Source of this information

14 Psychological disorders like depression and anxiety disorders do not affect children.

   ① True          ② False          ③ I don’t know
   Source of this information

15 Stress can lead to illness, e.g. cancer, hypertension, mental disorders.

   ① True          ② False          ③ I don’t know
   Source of this information
16  A person who has recovered from mental illness will not be able to return to work

① True  ② False  ③ I don’t know
Source of this information ______________________

17  A person with schizophrenia is a person with “split personality”.

① True  ② False  ③ I don’t know
Source of this information ______________________

18  Psychiatrists primarily use psychoanalysis as a basis of therapy

① True  ② False  ③ I don’t know
Source of this information ______________________

PART III: Please rate how much you agree or disagree with each of these statements.

1  Psychology is simply common sense

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

2  If I suffer from mental health problems, I wouldn’t want people to know.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

3  A person who has visited a psychologist’s office is a person with mental disorder.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

4  Anyone can suffer from mental health problems.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

5  I would find it hard to talk to someone with mental health problems.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

6  People are generally caring and sympathetic to people with mental health problems.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree

7  People with mental health problems are often dangerous/violent.

① Strongly Agree  ② Agree  ③ Disagree  ④ Strongly Disagree
8 The majority of people with mental health problems recover.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

9 People with mental health problems should have the same rights as anyone else.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

10 People with mental health problems are largely to blame for their own condition.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Will you seek help from mental health professionals if you know you have mental health problem?

- Yes
- No

If No, which of the following explain(s) your decision? (You may check more than one)

- Do not know where to seek psychological services
- Do not want other people to know
- Fee/ No insurance coverage
- Religions belief
- Others:  

Thank you for your participation
Appendix B2: Psychology and Mental Health Questionnaire  
(Malay version)

**PART I: Maklumat Peribadi**

1. Umur  
2. Jantina  
   ① Lelaki  
   ② Perempuan  
3. Bangsa  
   ① Melayu  
   ② Cina  
   ③ India  
   ④ Lain-lain:  
4. Agama  
   ① Islam  
   ② Buddha  
   ③ Hindu  
   ④ Kristian  
   ⑤ Lain-lain:  

5. Adakah anda bekerja?  
   Jika **Ya**, sila nyatakan Pekerjaan:  
   Jika **Tidak**, sila pilih:  
   ① Tidak bekerja  
   ② Suri ruman tangga  
   ③ Masih belajar  

6. Apakah tahap pendidikan tertinggi yang telah anda capai?  
   ① Lepasan pasca Ijazah  
   ② Ijazah Sarjana Muda  
   ③ Diploma  
   ④ Pra Universiti  
   ⑤ Tamat sekolah Menengah (Ke soalan 8)  
   ⑥ Tamat sekolah Rendah (Ke soalan 8)  
   ⑦ Lain-lain:  

7. Pernahkah anda mengambil sesuatu kursus psikologi di kolej/universiti?  
   ① Ya  
   ② Tidak  

8. Pernahkah anda/ sesiapa yang anda kenali diberitahu oleh pakar kesihatan (contoh: doktor, doctor penyakit jiwa) bahawa anda/ mereka mempunyai masalah kesihatan mental?  
   ① Ya (Ke soalan 9)  
   ② Tidak (Ke soalan 10)  

9. Jika **Ya**, sila nyatakan apakah masalah tersebut:  

10. Pernahkah anda/ sesiapa yang anda kenali pergi mendapatkan perkhidmatan psikologi?  
    ① Ya (Ke soalan 11)  
    ② Tidak (Ke soalan 14)  

11. Jika **Ya**, sila nyatakan:  
    ① Ahli psikologi  
    ② Pakar sakit jiwa  
    ③ Lain-lain:  

12. Sebab:  

13. Bila:  

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14 Jika **Tidak**, manakah antara berikut menerangkan jawapan anda?(Boleh buat lebih dari satu pilihan)

- ① Tiada sebab untuk mendapatkan perkhidmatan psikologikal
- ② Tidak tahu di mana hendak mendapatkan perkhidmatan psikologikal
- ③ Tidak mahu orang lain tahu
- ④ Yuran/ Tiada perlindungan insuran
- ⑤ Tidak serius – Saya boleh atasi nya
- ⑥ Kepercayaan agama
- ⑦ Terlalu sibuk
- ⑧ Lain-lain: __________________________

15 Sejauhmanakah anda biasa dengan kerja yang dilakukan oleh ahli psikologi?

- ① Sangat tidak biasa
- ② Tidak biasa
- ③ Biasa
- ④ Sangat biasa

16 Apakah kelayakan minima yang diperlukan untuk menjadi seorang ahli psikologi?

- ① Beberapa kursus ijazah sarjana muda dalam psikologi
- ② Ijazah Sarjana Muda dalam psikologi
- ③ Ijazah Sarjana/Master dalam psikologi
- ④ Ijazah Doktor Perubatan
- ⑤ Doktor Falsafah/PhD dalam psikologi
- ⑥ Saya tidak tahu

**PART II:** Bagi setiap soalan, sila jawab benar/salah serta nyatakan bagaimana/ di mana anda mempelajari maklumat tersebut (**SUMBER MAKLUMAT**)  

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<td>Tidak ingat sumbernya</td>
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<td>Internet</td>
<td>O</td>
<td>Lain-lain</td>
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1 Psikologi adalah suatu sains

- ① Benar
- ② Salah
- ③ Tidak tahu

2 Kesemua pelajar psikologi mempelajari hipnosis di dalam kelas

- ① Benar
- ② Salah
- ③ Tidak tahu

3 Hipnosis tidak berkesan kepada sesiapa

- ① Benar
- ② Salah
- ③ Tidak tahu

4 Ahli psikologi hanya mempelajari tingkah laku dan minda, tetapi tidak mempelajari biologi

- ① Benar
- ② Salah
- ③ Tidak tahu
5 Hanya segelintir sahaja orang yang mempunyai masalah psikologi mendapatkan bantuan daripada profesional kesihatan mental pada hari ini

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6 Gelaran "ahli psikologi" dan "doktor penyakit jiwa" merujuk kepada profesyen yang sama

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7 Kecelaran pemakanan (cth: Anorexia Nervosa, Bulimia Nervosa) adalah masalah psikologikal

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8 Kesemua ahli psikologi bekerja dengan pesakit mental

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9 Ahli psikologi boleh membantu sesebuah organisasi dalam mengubahsuai persekitaran kerja ke arah produktiviti dan moral pekerja secara maksimum

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10 Kecelaran-kecelaran psikiatri adalah sama dengan penyakit seperti sakit jantung dan kencing manis

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11 Kesihatan mental ditakrifkan sebagai ketiadaan kecelaran-kecelaran menta

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12 Semasa psikoterapi, pesakit biasanya baring di atas kerusi panjang dan bercakap tentang apa sahaja yang muncul di mindanya

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<th></th>
<th>True</th>
<th>False</th>
<th>I don’t know</th>
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13 Ahli psikologi membaca minda manusia

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14 Kecelaran psikologikal seperti depresi ( kemurungan) dan kebimbangan tidakberlaku pada kanak-kanak/

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15 Tekanan (stres) boleh menyebabkan penyakit, cth. Kanser, tekanan darah tinggi (hipertensi), kecelaran mental

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<td>Sumber maklumat</td>
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</table>
16. Seseorang yang telah pulih daripada penyakit mental tidak boleh kembali bekerja semula
   ① Benar         ② Salah         ③ Tidak tahu
   Sumber maklumat __________________________

17. Seorang skizofrenia adalah seorang yang mempunyai “split personality” (personaliti yang berbahagi)
   ① Benar         ② Salah         ③ Tidak tahu
   Sumber maklumat __________________________

18. Pakar sakit jiwa terutamanya menggunakan psikoanalisisis sebagai asas terapi
   ① Benar         ② Salah         ③ Tidak tahu
   Sumber maklumat __________________________

PART III:  Sila tandakan tahap persetujuan anda terhadap setiap kenyataan di bawah

1. Psikologi adalah pengetahuan am sahaja
   ① Sangat setuju        ② Setuju      ③ Tidak setuju
   ④ Sangat tidak setuju

2. Sekiranya saya ada masalah kesihatan mental, saya tidak akan mahu orang lain tahu
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

3. Seseorang yang pernah mengunjungi ahli psikologi adalah seseorang yang mempunyai kecelaruan mental
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

4. Sesiapa sahaja boleh mempunyai masalah kesihatan mental
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

5. Saya mendapati adalah sukar untuk bercakap dengan orang yang mempunyai masalah kesihatan mental
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

6. Orang ramai biasanya mengambil berat dan simpati terhadap orang yang mempunyai masalah kesihatan mental
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

7. Orang yang mempunyai masalah kesihatan mental selalunya berbahaya/ganas
   ① Sangat setuju        ② Setuju        ③ Tidak setuju
   ④ Sangat tidak setuju

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8  Kebanyakan orang yang mempunyai masalah kesihatan mental sembuh
   • 1) Sangat setuju
   • 2) Setuju
   • 3) Tidak setuju
   • 4) Sangat tidak setuju

9  Orang yang mempunyai masalah kesihatan mental sepatutnya mempunyai hak yang sama seperti orang lain
   • 1) Sangat setuju
   • 2) Setuju
   • 3) Tidak setuju
   • 4) Sangat tidak setuju

10 Orang yang mempunyai masalah kesihatan mental kebanyakannya dipersalahkan atas keadaan mereka sendiri
    • 1) Sangat setuju
    • 2) Setuju
    • 3) Tidak setuju
    • 4) Sangat tidak setuju

Jika anda mempunyai masalah kesihatan mental, adakah anda akan meminta bantuan dari pakar kesihatan mental?
   • 1) Ya
   • 2) Tidak

Jika Tidak, manakah antara berikut menerangkan jawapan anda? (Boleh buat lebih dari satu pilihan)
   • 1) Tidak tahu di mana hendak mendapatkan perkhidmatan psikologikal
   • 2) Tidak mahu orang lain tahu
   • 3) Yuran/ Tiada perlindungan insuran
   • 4) Kepercayaan agama
   • 5) Lain-lain: __________________________

Terima kasih di atas penyertaan anda
Appendix B3: Psychology and Mental Health Questionnaire
(Chinese version)

PART I: Personal Information

1 年龄 _____________________________

2 性别 ① 男 ② 女

3 种族 ① 马来人 ② 华人 ③ 印度人
   ④ 其他: _____________________________

4 宗教 ① 回教 ② 佛教 ③ 兴都教
   ④ 基督教 ⑤ 其他: _____________________________

5 您有工作吗？如果有，请明确说明您的职业：__________________________
   如果没有，请选择：
   ① 没有工作
   ② 家庭主妇
   ③ 学生

6 您的最高学历是：
   ① 大学研究院 (硕士/博士)
   ② 大学 (学士)
   ③ 专业文凭
   ④ 大学先修班
   ⑤ 中学 (To Question 8)
   ⑥ 小学 (To Question 8)
   ⑦ 其他: _____________________________

7 您曾经在大学或学院里进修过任何心理学课程？
   ① 是 ② 否

8 您/任何您所认识的人曾被专业的健康咨询人员（如：医生，精神科医生）诊断出患有精神病/心理问题？
   ① 是 (To Question 9) ② 否 (To Question 10)

9 如果有，请明确说明原因：__________________________________________

10 您/任何您所认识的人曾经寻求心理咨询辅导吗？
   ① 是 (To Question 11) ② 否 (To Question 14)

11 如果有，是：
   ① 心理学家
   ② 精神科医生
   ③ 其他: _____________________________

12 原因：______________________________________________________________

13 什么时候：_________________________________________________________
14 如果没有，下列哪项说明您的决定？（可以选择一个以上的答案）
① 没有理由寻求心理咨询辅导
② 不清楚到哪里寻求心理咨询辅导
③ 不想让其他人知
④ 费用/没有保险资助
⑤ 不严重－我能够应付
⑥ 宗教信仰
⑦ 太忙碌
⑧ 其他：

15 您对心理学家的工作熟悉吗？
① 非常不熟悉
② 不熟悉
③ 熟悉
④ 非常熟悉

16 成为心理学家的基本资格是：
① 教学心理学科目
② 心理学系学士学位
③ 心理学系硕士学位
④ 医学系学士学位（医学院毕业）
⑤ 心理学系博士学位
⑥ 不知道

PART II: 请选择您认为最准确的答案，并注明此资讯来源。

| M | 电视节目，电影 | C | 教室里的知识 |
| R | 阅读刊物 | H | 健康专业咨询人员 |
| P | 个人经验 | D | 不知道/不记得其资讯来源 |
| I | 互联网 | O | 其他 |

1 心理学是一门科学。
① 对
② 错
资料来源：

2 所有心理学系的学生在课堂上都学催眠术。
① 对
② 错
资料来源：

3 催眠不适用于每一个人。
① 对
② 错
资料来源：

4 心理学家研究行为与情绪，但不学生物。
① 对
② 错
资料来源：

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只有小部分心理上有问题的人寻求心理健康专业人员的帮助。

① 对  ② 错  ③ 不知道

资料来源：

“心理学家”与“精神科医生”指的是同一门专业。

① 对  ② 错  ③ 不知道

资料来源：

饮食性疾病（如厌食症，暴食症）都属心理疾病。

① 对  ② 错  ③ 不知道

资料来源：

所有的心理学家处理的都是精神病患者。

① 对  ② 错  ③ 不知道

资料来源：

心理学家可以帮助一个组织或一间公司改善其工作环境以提高生产以及员工的士气。

① 对  ② 错  ③ 不知道

资料来源：

精神病是属于医学疾病（如：心脏病及糖尿病）。

① 对  ② 错  ③ 不知道

资料来源：

心理健康被的定义为缺乏精神病。

① 对  ② 错  ③ 不知道

资料来源：

在心理治疗过程中，受治疗者通常躺在长椅上说出心里所想的一切。

① 对  ② 错  ③ 不知道

资料来源：

心理学家能够读猜测人心

① 对  ② 错  ③ 不知道

资料来源：

心理疾病，如抑郁症及焦虑症，不影响孩童。

① 对  ② 错  ③ 不知道

资料来源：

压力能导致疾病，如癌症，高血压，精神病。

① 对  ② 错  ③ 不知道

资料来源：

PART III: 请评估您有多同意以下各句。

1. 心理学只是普常识
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

2. 如果我有心理问题，我不想让人知道。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

3. 见过心理医生的人都患有精神病。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

4. 任何人都有可能患上心理问题。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

5. 我觉得与患有心理问题的人谈话很困难。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

6. 对有着心理问题的人们，通常都很关心及同情。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意

7. 有着心理问题的人都很危险及有暴力倾向。
   ① 非常同意  ② 同意  ③ 不同意  ④ 非常不同意
8 大多数有心理健康问题的人都能痊愈。
   ① 非常同意   ③ 不同意
   ② 同意       ④ 非常不同意

9 有着心理健康问题的人应该与其他人一样享有同等的权利。
   ① 非常同意   ③ 不同意
   ② 同意       ④ 非常不同意

10 有着心理健康问题的人，他们的情况绝大部分都怪他们自己。
   ① 非常同意   ③ 不同意
   ② 同意       ④ 非常不同意

PART IV:

如果您有精神上的困扰，您是否会寻求专业人员的帮助？
   ① 会   ② 不会

如果不会，下列哪项说明您的决定？（可以选择一个以上的答案）
   ① 不清楚到哪里寻求心理咨询辅导
   ② 不想让其他人知
   ③ 费用/没有保险资助
   ④ 宗教信仰
   ⑤ 其他：

------------------------------------------
谢谢您的参与
------------------------------------------
Appendix B4: Psychology and Mental Health Questionnaire

PART I: Personal Information
Please complete the following questions about you. Any information you provide will be strictly confidential. After completing these questions, please proceed to complete the subsequent pages.

Age _______ years old
Sex ☐ Male ☐ Female
Race ☐ Malay ☐ Chinese ☐ Indian ☐ Others:
Religion ☐ Muslim ☐ Buddhist ☐ Hindu ☐ Christian ☐ Others:

1. What is your major/proposed major?
   ☐ Psychology ☐ Others: __________

2. For what reason you chose/proposed psychology to be your major?

3. How many psychology courses have you completed so far?

4. Have you/anyone you know ever seek psychological services?
   ☐ Yes ☐ No

5. If Yes, please state ☐ Psychologist ☐ Psychiatrist ☐ Others: __________
   Who: __________________________________________
   Reason: _________________________________________
   When: ___________________________________________

If No, why? (Please check one response)
   ☐ No reason to seek psychological services
   ☐ Do not know where to seek psychological services
   ☐ Do not want other people to know
   ☐ Fee/No insurance coverage
   ☐ Not serious—I can handle
   ☐ Religions belief
   ☐ Too busy
   ☐ Others (Please explain): __________________________

6. How familiar are you with the work psychologists do?
   ☐ Very unfamiliar
   ☐ Unfamiliar
   ☐ Familiar
   ☐ Very familiar

7. Please write the word “psychologist” in your native language
   (Other than English, e.g. Malay, Chinese, Tamil, etc.): __________

8. What is the minimal qualification necessary to become a psychologist?
   ☐ Some undergraduate courses in psychology
   ☐ Bachelors in psychology (college/ university degree)
   ☐ Masters in psychology (advanced degree beyond a college/ university degree)
   ☐ Medical Doctor degree (MD) (graduating Medical School)
   ☐ Doctorate in psychology (advanced degree beyond a Masters)
   ☐ I don’t know
PART II: Please respond to the following items to the best of your ability. If you are not certain, please tick “I don’t know”. For each item, kindly indicate how/where you learned the information (SOURCE):  

M = TV programme, Movie  
R = Books, Newspaper, Magazine, Journal Article  
H = Doctor, Psychiatrist, Psychologist  
P = Personal experience (Self/Family/Friends’ experience)  
C = Classroom knowledge (School, College, University)  
I = Internet  
D = Don’t know how I learned it/Cannot remember the source  
O = Other (Source)  

Please be as explicit as possible about how you know about each item. If you think you learned the information from a movie, you should answer Source: M (Movie); if you think you learned the information from the newspaper, you should answer Source: R (Newspaper) 

1. Psychology is a science.  
   □ True □ False □ I don’t know Source: 

2. The titles “psychologist” and “Psychiatrist” refer to the same profession.  
   □ True □ False □ I don’t know Source: 

3. All psychologists work in mental hospital.  
   □ True □ False □ I don’t know Source: 

4. A person with schizophrenia is a person with “split personality”.  
   □ True □ False □ I don’t know Source: 

5. Only a small minority of people with psychological problems seek help from mental health professionals today.  
   □ True □ False □ I don’t know Source: 

6. Psychologists read people’s mind.  
   □ True □ False □ I don’t know Source: 

7. Psychologists can help an organization in modifying the work environment to maximize productivity and morale of staff.  
   □ True □ False □ I don’t know Source: 

8. When we sleep, the brain sleeps as well.  
   □ True □ False □ I don’t know Source: 

9. In an emergency, you are more likely to receive help if a lot of people are present.  
   □ True □ False □ I don’t know Source: 

10. Psychologists study behaviour and the mind, but not biology.  
    □ True □ False □ I don’t know Source: 

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11. Most people use only 10% of their brains.
   □ True  □ False  □ I don’t know  Source: __________

12. If a person cannot recall something, there is no way that the person could still remember it.
   □ True  □ False  □ I don’t know  Source: __________

13. Some people never dream.
   □ True  □ False  □ I don’t know  Source: __________

14. Hypnosis does not work on everyone.
   □ True  □ False  □ I don’t know  Source: __________

15. Hypnosis is useful for retrieving memories of forgotten events.
   □ True  □ False  □ I don’t know  Source: __________

16. Pictures are easier to recall than words.
   □ True  □ False  □ I don’t know  Source: __________

17. Eyewitness testimony is the most reliable means of identifying criminals.
   □ True  □ False  □ I don’t know  Source: __________

18. Psychology is simply common sense.
   □ True  □ False  □ I don’t know  Source: __________

   □ True  □ False  □ I don’t know  Source: __________

20. Psychiatrists primarily use psychoanalysis as a basis of therapy.
   □ True  □ False  □ I don’t know  Source: __________

21. A person’s intelligence is determined by the brain size.
   □ True  □ False  □ I don’t know  Source: __________

22. All psychologists work with people with mental illness.
   □ True  □ False  □ I don’t know  Source: __________

23. People with mental illness are usually dangerous and violent.
   □ True  □ False  □ I don’t know  Source: __________

24. What we call colours, sounds, tastes, smells, and textures exist only in our brains, not in the outside world.
   □ True  □ False  □ I don’t know  Source: __________
25. Right-brained people are more creative; left-brained people are more analytic.
   □ True  □ False  □ I don’t know  Source: ___________  
26. Watching violence on television can increase the likelihood that a person becomes aggressive.
   □ True  □ False  □ I don’t know  Source: ___________  
27. Mental health is defined as the absence of mental disorders.
   □ True  □ False  □ I don’t know  Source: ___________  
28. We experience stress even when good things happen to us.
   □ True  □ False  □ I don’t know  Source: ___________  
29. People usually fall in love with someone different from themselves; in other words, opposites attract.
   □ True  □ False  □ I don’t know  Source: ___________  
30. Psychological disorders like depression and anxiety disorders do not affect children.
   □ True  □ False  □ I don’t know  Source: ___________  
31. Psychiatric disorders are not true medical illnesses like heart disease and diabetes.
   □ True  □ False  □ I don’t know  Source: ___________  
32. Eating disorders (e.g. anorexia nervosa, bulimia nervosa) are psychological disorders.
   □ True  □ False  □ I don’t know  Source: ___________  
33. During psychotherapy, clients usually lie on a couch and talk about whatever comes to mind.
   □ True  □ False  □ I don’t know  Source: ___________  
34. Women tend to be more emotional than men.
   □ True  □ False  □ I don’t know  Source: ___________  
35. Stress can lead to illness, e.g. cancer, hypertension, mental disorders.
   □ True  □ False  □ I don’t know  Source: ___________  
36. All psychology students study hypnosis in class.
   □ True  □ False  □ I don’t know  Source: ___________

Thank you for your participation

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Appendix C

Klang Valley Map Showing Locations where Household Survey was Conducted
KLANG VALLEY MAP

LEGEND
1. Bagan Nakhoda Omar, Sabak Bernam
2. Ladang Sungai Tinggi, Ulu Selangor
3. Tmn. Seri Cahaya, Batang Kali
4. Bagun Sq. Yu, Kuala Selangor
5. Kg. Jaya Setia, Batang Berjuntai
6. Bandar Country Homes, Rawang
7. Jeram, Kuala Selangor
8. Bandar Puncak Alam, Jeram
10. Villa Legenda, Selayang
11. Tmn. Melawati, Ampang
12. Seksyen 2, Wangsa Maju
13. Tmn. Ibukota, Ulu Klang
14. Green View Apartment
15. Tmn. Sri Bintang
16. Setapak, Ulu Klang
17. Jln. Union, Sentul
18. JKR4444, Bukit Aman
19. Ukay Heights, Ampang
21. Kenanga Point Condominium
23. Tmn. Gembira
25. Kg. Pasir Baru, Puchong
26. Kg. Puntal Dalam, Pantai Dalam
27. Seksyen 51A, Petaling Jaya
28. Tmn. Putra Damai, Petaling Jaya
29. Kg. Baru Subang, Subang
30. Kg. Bukit Kapar, Kapar
31. Jln. Nenas, Meru
32. Padang Jawa, Shah Alam
33. Seksyen 17, Shah Alam
34. Seksyen 28, Shah Alam
35. Perumahan Awan DBKL, Cheras
36. Tmn. Satu, Kajang
37. Tmn. Desa Ayer Hila, Dengkil
38. Kuarters Polis, Jln. Tun Abdul Razak
39. Kg. Medan Dalam, Telok Panglima Garang
40. Kg. Seri Cheeding, Banting
41. Tmn. Permuta, Dengkil
42. Kg. Bukit Changgang, Banting
43. Dusun Durian Estate, Banting
44. Labu
45. Sg. Limau Divisien Ladang Sepang
Appendix D

Sample Letter to College/ University to Request Permission to Conduct Research
Date

Dear [name],

RE: Requesting Permission to Conduct Research

Referring to the above, I, Reiko Yeap, a PhD Candidate at Health Research Development Unit (HeRDU), Faculty of Medicine, University of Malaya would like to seek your permission to conduct a research study with your Introductory Psychology students.

The purpose of the study is to explore what college students majoring in psychology think about psychology and mental health (well being and mental illness). The survey will involve answering questions, which will take approximately 20 - 30 minutes of the class time.

The study is longitudinal in nature employing a pre- and post- course design. Students will be approached on the first day of class to participate in the study. The same group of students will be contacted to take part in the second part of the study upon completion of the Introductory Psychology course.

This research has obtained ethical approval from the University of Malaya Medical Ethics Committee. The results of this study will be completely confidential where information from this study will not be made public in any form in which your institution can be identified. Data from this study will be stored electronically, accessible only to the researcher. You may however request for a summary of the results when they become available.

Should you agree to the above request, I would appreciate if you could provide me with the class timetable, number of students and class instructor/ lecturer whom I can liaise with. If you have further questions concerning matters related to this research, please contact me at 016 2600878 or vreikoy@gmail.com.

Thank you very much in advance and looking forward to your favourable reply.

Yours sincerely,

Reiko Yeap

cc. Professor Dr. Sarinah Low Wah Yun, Research Supervisor, Health Research Development Unit, University of Malaya Medical Center
Appendix E

Appendix E1. Instruction for interviewers (English version)

Appendix E2. Instruction for interviewers (Malay version)

Appendix E3. Instruction for interviewers (Chinese version)
Greetings.

My name is __________. I am an interviewer from the University of Malaya. I am now conducting a questionnaire survey to understand the public opinions towards psychology and mental health. I hope that you can spare some of your time to complete this interview. All the information given will be kept confidential.

(Show letter) This is the Consent Letter. Please sign if you agree to take part in this survey. Thank you for your co-operation.

Part I

In this present interview, I would like to interview those who are aged 18 or above. May I know how many members in this household aged 18 and above?

Proceed to Question 1.1 if there is only one member in the household aged 18 and above.

Question 1.1

Sir/ Madam, may I know how old are you?

If the interviewee does not want to reveal his/her actual age, give him/her the following option:

a. 18 – 25  
b. 26 – 35  
c. 36 – 45  
d. 46 – 55  
e. 55+

Proceed and ask Question 2 – 16.

Question 1.2

May I know which of these members (all members aged 18 and above) has recently celebrated his/her birthday?

Once identified the member, proceed to Question 1.1.
Part II

Now I will read you 18 statements. Please indicate whether the statement is “true”, “false”, or answer “I don’t know” if you do not know the answer. Following that, try to remember where you learned the information from, e.g. newspaper, movie.

Read statement 1 – 18.

Part III

Now I would like to know how much you agree or disagree with each of these statements. You may rate the statement by telling me whether you strongly disagree, disagree, agree or strongly agree.

Read statement 1 – 10.

Part IV

Before we end the interview, may I know if you would consider seeking help from professionals if you know you have mental health problem?

If YES, who (which healthcare professional) will you seek help from?

If NO, ask for reason:

□ No reason to seek psychological services
□ Do not know where to seek psychological services
□ Do not want other people to know
□ Fee/ No insurance coverage
□ Religions belief
□ Others (Please explain):

______________________________________________

After the interview

1. Thank the respondent for cooperating.
2. Take a few minutes to look through the questionnaire. Make sure that all the applicable questions were answered and that nothing was left out.
3. Take down any additional remarks in the booklet which may be useful for the interpretation of results.
4. Fill in the Map#, Unit# and Date.
5. For Refusal or No Contact, fill in the Non-Contact Sheet
Nama saya __________. Saya penyelidik dari Universiti Malaya. Saya ingin meminta bantuan tuan/puan dalam satu tinjauan bagi menyelidik pemikiran masyarakat awam terhadap psikologi dan kesiha tan mental. Hasil daripada kajian ini adalah sulit dan maklumat daripada kajian ini juga tidak akan didedahkan dalam apa jua bentuk yang menunjukkan anda dikenalpasti sebagai peserta dalam kajian ini. Anda adalah bebas untuk tidak menjawab soalan-soalan tertentu, dan berhak untuk menarik diri daripada kajian ini pada bila-bila masa.

(Show letter) Sila ambil masa untuk membaca surat persetujuan ini dengan teliti and sila tandatangan sekiranya tuan/puan bersetuju untuk mengambil bahagian dalam tinjauan ini. Terima kasih atas kerjasama tuan/puan.

Part I

Dalam temuduga ini, saya ingin bertemuduga dengan ahli keluarga yang berumur 18 tahun ke atas. Bolehkah saya tahu berapakah ahli keluarga dalam rumah ini berumur 18 tahun ke atas?

Proceed to Question 1.1 if there is only one member in the household aged 18 and above.

Question 1.1

Tuan/ puan, berapakah umur tuan/puan?

If the interviewee does not want to reveal his/her actual age, give him/her the following option:

a. 18 – 25
b. 26 – 35
c. 36 – 45
d. 46 – 55
e. 55+

Proceed and ask Question 2 – 16.
Question 1.2

Boleh saya tahu ahli keluarga (yang berumur 18 tahun ke atas) yang manakah baru sahaja menyambut hari jadi?

Once identified the member, proceed to Question 1.1.

Part II


Read statement 1 – 18.

Part III

Untuk soalan yang berikutnya, sila nyatakan tahap persetujuan anda terhadap setiap kenyataan di bawah, sama ada tuan/puan sangat setuju, setuju, tidak setuju, atau sanagat tidak setuju terhadap kenyataan tersebut.

Read statement 1 – 10.

Part IV

Sebelum temuduga ini tamat, bolehkah saya tahu sama ada tuan/puan akan meminta tolong dari pakar kesihatan jika tuan/puan mengetahui bahawa tuan/puan mempunyai masalah kesihatan mental?

Jika tuan/puan akan meminta tolong dari pakar kesihatan, siapakah yang tuan/puan akan jumpa?

Jika Tidak, manakah antara berikut menerangkan jawapan anda?

☐ Tidak tahu di mana hendak mendapatkan perkhidmatan psikologikal
☐ Tidak mahu orang lain tahu
☐ Yuran/ Tiada perlindungan insuran
☐ Kepercayaan agama
☐ Lain-lain
After the interview

1. Thank the respondent for cooperating.
2. Take a few minutes to look through the questionnaire. Make sure that all the applicable questions were answered and that nothing was left out.
3. Take down any additional remarks in the booklet which may be useful for the interpretation of results.
4. Fill in the Map#, Unit# and Date.
5. For Refusal or No Contact, fill in the Non-Contact Sheet
先生/女士，您好，

我姓 __________，是马来亚大学的一名访问员。我正进行一项问卷调查，探讨大众对于心理学与心理健康的看法，希望您能抽空回答一些问题。我们会对此项研究结果以及您的个人资料绝对保密，请您放心。您有权选择不回答任何一道问题，或是退出这项调查。

(Show letter) 请您仔细阅读这份同意书，并签名若您同意参与。谢谢您的合作。

Part I

这次问卷调查，我希望访问18岁以上的家庭成员的意见。请问您家中有多少位成员年龄为18岁以上？

Proceed to Question 1.1 if there is only one member in the household aged 18 and above.

Question 1.1

先生/女士，请问您今年几岁？

If the interviewee does not want to reveal his/her actual age, give him/her the following option:

a. 18 – 25
b. 26 – 35
c. 36 – 45
d. 46 – 55
e. 55+

Proceed and ask Question 2 – 16.

Question 1.2

请问在这些家庭成员当中（18岁以上），哪一位刚庆祝过生日？

Once identified the member, proceed to Question 1.1.
Part II

我将会读出18个句子。请选择您认为最准确的答案（“对”，“错”，“不知道”），并注明此资讯来源。

Read statement 1 – 18.

Part III

对于下列10个说法，您是否同意？请回答：“非常同意”，“同意”，“不同意”，“或非常不同意”。

Read statement 1 – 10.

Part IV

在访问结束前，请问当您有精神上的困扰时，您是否会寻求专业人员的帮助？

如果您选择会，您会向谁求助？

如果不会，下列哪项说明您的决定？（可以选择一个以上的答案）

- 不清楚到哪里寻求心理咨询辅导
- 不想让其他人知
- 费用/没有保险资助
- 宗教信仰
- 其他

After the interview

1. Thank the respondent for cooperating.
2. Take a few minutes to look through the questionnaire. Make sure that all the applicable questions were answered and that nothing was left out.
3. Take down any additional remarks in the booklet which may be useful for the interpretation of results.
4. Fill in the Map#, Unit# and Date.
5. For Refusal or No Contact, fill in the Non-Contact Sheet
Appendix F

Ethics approval from the University of Malaya Medical Ethics Committee

Yeap Kah Min Reiko
Unit Pembangunan Penyelidikan Kesehatan (HeRDU)

Puan

SURAT KELULUSAN
Common Misconceptions And Attitude Towards Psychology And Mental Health.
MEC Ref. No.: 547.3

Dengan hormatnya saya merujuk kepada perkara di atas.


Sekian, terima kasih.

Yang benar

MARIAM MANSOR
Setiausaha
Jawatankuasa Etika Perubatan
Pusat Perubatan Universiti Malaya
PUSAT PERUBATAN UNIVERSITI MALAYA
ALAMAT: LEMBAH PANTAI, 59100 KUALA LUMPUR, MALAYSIA
TELEFON: 03-79494422, 03-79494422 KEBEL: UniHOS, KUALA LUMPUR
FAX NO: 6-03-79545682

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<td>Medical Ethics Committee, University Malaya Medical Centre</td>
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ADDRESS: LEMBAH PANTAI 59100 KUALA LUMPUR

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<th>Yeap Kah Min Reiko</th>
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<th>KOMTEL:</th>
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The following item [✓] have been received and reviewed in connection with the above study to be conducted by the above investigator.

- Borang Permohonan Penyelidikan
- Study Protocol
- Investigator's Brochure
- Patients Information Sheet
- Consent Form
- Self-Devised Questionnaire (General Public)
- Self-Devised Questionnaire (Academician)
- Self-Devised Questionnaire
- Advertisement/Payment & Compensation to Subjects
- Investigator(s)' CV's (Yeap Kah Min Reiko)

and have been [✓]

- Approved
- Conditionally approved (identify item and specify modification below or in accompanying letter)
- Rejected (identify item and specify reasons below or in accompanying letter)

Comments:

1. Investigator is required to follow instructions, guidelines and requirements of the Medical Ethics Committee.
2. Investigator is required to report any protocol deviations/violations through the Clinical Investigation Centre and provide annual/closure reports to the Medical Ethics Committee.

Date of approval: 20th September 2006

s.k Ketua
Unit Pembangunan Penyelidikan Kesihatan (U-PERDU)

Timbalan Dekan (Penyelidikan)
Fakulti Perubatan, Universiti Malaya

Setiausaha
Jawatankuasa Penyelidikan Pusat Perubatan
Fakulti Perubatan, Universiti Malaya

[Signature]
PROF. LOOI LAI MENG
Chairman
Medical Ethics Committee
Appendix G

Appendix G1. Consent letter for the household survey

Appendix G2. Consent letter for the survey with university/college students
Consent Letter/ Surat Persetujuan/ 同意书

This letter is being sent to ask for your help with a survey designed to explore what the general public thinks about psychology and mental health. This research has obtained ethical approval from the University of Malaya Medical Ethics Committee.

Your participation will involve answering questions, which will take approximately 20 - 30 minutes of your time. The results of this study will be completely confidential and will not be made public in any form in which you personally can be identified as a participant. The questionnaire content may draw your attention to potentially upsetting current or past problems. You are free to not answer specific questions or withdraw from the study at any time without penalty.

Surat ini diberti untuk meminta bantuan anda dalam satu tanyaan yang direkabentuk bagi meneliti pendirian masyarakat awam terhadap psikologi dan kehiduan mental. Kajian ini telah mendapat kelulusan etika daripada Jawatankuasa Etika Perkatanan Universiti Malaya.

Anda akan menjawab soalan yang hanya akan mengambil masa selama 20-30 minit. Hasil daripada kajian ini adalah sulit dan tidak akan diperuntukkan dalam apa jua bentuk yang memuaskan anda diketahui atau disebabkan oleh keadaan anda. Anda adalah bebas untuk tidak menjawab soalan-soalan tertentu, dan berhak untuk menarik diri daripada kajian ini pada bila-bila masa tanpa diketahui sebarang tindakan.

研究结果以及您的个人资料等将绝对保密，并不会被公开。问卷的内容或许会让您想起当前或过去令您烦恼及不快的问题。您有权选择不愿回答任何一道问题，或是退出这项调查。

I have read and understand the purpose of this research, and I agree to take part in the survey on my own free will. I also understand that my response to the questionnaire will be completely confidential and I have the right to withdraw from the study at any time without penalty.

Saya telah membaca dan memahami tujuan penelitian ini, dan bersedia untuk mengambil bahagian dalam tanyaan ini dengan kebenaran saya sendiri. Saya juga mengetahui bahawa jawapan saya kepada soal selidik ini adalah rahsia sepenuhnya dan saya mempunyai hak untuk menarik diri daripada kajian ini pada bila-bila masa tanpa diketahui sebarang tindakan.

本人已明白有关研究调查的用途与过程，并愿意参与此项研究。同时我也了解我所提供的所有答案或资料将被完全保密，而我也有权随时退出这项调查。

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</table>

If you have further questions concerning matters related to this research, please contact:

Investigator/ Peneliti: Ms Reiko Yeap, PhD Candidate

Address/ Alamat: Health Research and Development Unit (HRDU)
Faculty of Medicine, University of Malaysia
50603 Kuala Lumpur

E-mail/ Email: reiko@perdana.um.edu.my
Consent Letter

Research Title: Public Knowledge and Attitudes Toward Psychology and Mental Health

Investigators: Reiko Yap, MSc., PhD Candidate, Faculty of Medicine, University of Malaya

Dear Participant,

This letter is being prepared to ask for your help with a survey designed to explore what university/college students think about psychology and mental health (well being and mental illness) using a self-administered questionnaire. Your participation will involve answering questions, which will take approximately 20 - 30 minutes of your time.

The results of this study will be completely confidential and your name will not be used on any of your responses. Information from this study will not be made public in any form in which you personally can be identified as a participant. Data from this study will be stored electronically, accessible only to the researcher.

Your consent to this letter indicates that you have understood the information regarding participation in the research project and agree to participate. Questionnaire content may draw your attention to potentially upsetting current or past problems. You are free to not answer specific questions. You are free to withdraw from the study at any time without penalty.

I have read and understand the purpose of this research, and I agree to take part in the survey on my own free will. I also understand that my response to the questionnaire will be completely confidential and I have the right to withdraw from the study at any time without penalty.

(Participant's Signature)

Date: ____________

If you have further questions concerning matters related to this research, please contact:

Ms Reiko Yap
PhD Candidate
Faculty of Medicine,
University of Malaya
Kuala Lumpur.
016 2600878
vreiko@perdana.um.edu.my
Appendix H

Sample of a non-contact sheet to be completed by interviewers

Non-contact sheet

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<td>3 Date</td>
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<tr>
<td></td>
<td>□ Non-Malaysian who live/ work in this country temporary</td>
</tr>
</tbody>
</table>
Appendix I

Pictures of empty brochure displaying racks in two hospitals in Klang Valley