MENTAL HEALTH HELP-SEEKING AND ACCESS TO SERVICES AMONG SCHOOLING ADOLESCENTS IN SELANGOR: A MIXED-METHODS STUDY

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ABSTRACT

Introduction: Despite the availability of mental health services, a large number of adolescents are reluctant to seek help for their mental health problems. This study aims to determine help-seeking behaviour, the factors influencing the use of mental health services as well as barriers to help-seeking for mental health problems among late adolescents in Selangor.

Methods: This study employed a sequential explanatory mixed-methods approach. It was divided into quantitative and qualitative phases. In the quantitative phase, the data was collected via a cross-sectional survey using a self-administered questionnaire. The variables used in the questionnaire were identified from Andersen's Behavioural Model of Health Services Utilisation. A total of 758 school-going adolescents aged 18-19 years completed the questionnaire. Complementary to the quantitative analyses, the qualitative phase was conducted via in-depth interviews among 22 adolescents. The study was conducted from February to August 2017. Multiple logistic regression for complex sample analysis was used to analyse quantitative data. Content analysis was applied to analyse the qualitative data.

Results: Findings showed that 53.2% of adolescents had sought help from any of the services in the past 12-months regardless of their current mental health status. Of these, only 3.7% sought help from formal mental health services. Among those who sought help from any of the services, 96% sought help from informal sources. Meanwhile, of those who did not seek help from mental health services, 85.9% sought help from informal sources. Among adolescents with apparent mental health problems, 59.2% sought help from any service in the past 12-months with only 6.9% seeking help from formal mental health services. The majority of adolescents in this study preferred to seek help from family (48%) and friends (38.5%). Findings from the logistic regression analyses

indicated that adolescents who had excellent, very good and good knowledge of the symptoms of depression (OR= 2.10, 95% CI= 1.31, 3.36), experience of depression prior to survey (OR= 1.44, 95% CI= 1.02, 2.02), were aware of the available resources (OR= 1.90, 95% CI= 1.08, 3.36), and perceived need for help (OR=1.61, 95% CI 1.12, 2,29) were more likely to seek help from formal and informal mental health services. The qualitative findings further confirmed that friends and family were the leading support sources for adolescents' mental health problems. According to the participants, concern about being judged or labelled was the most common barrier to seeking professional help. This was followed by logistic barriers, negative experience with healthcare providers, confidentiality and trust issues, and difficulty or unwillingness to express emotion.

Conclusion: The findings suggest the importance of enhancing Malaysian adolescents' knowledge of mental health, increasing awareness of the availability of mental health resources and improving help-seeking behaviour and access to mental health services. Further efforts should be made to address the barriers and provide adolescent-friendly mental health services.

ABSTRAK

Pengenalan: Walaupun terdapat perkhidmatan kesihatan mental, sebahagian besar remaja masih enggan mendapatkan bantuan bagi masalah kesihatan mental mereka. Kajian ini bertujuan untuk mengenalpasti tingkah laku mendapatkan bantuan, faktor-faktor yang mempengaruhi penggunaan perkhidmatan kesihatan mental dan juga halangan-halangan untuk mendapat bantuan dalam kalangan remaja di Selangor.

Metodologi: Kajian ini telah mengguna pakai kaedah kajian gabung berturutan. Ianya dibahagikan kepada dua fasa iaitu kuantitatif dan kualitatif. Di dalam fasa kuantitatif, data telah dikumpulkan dengan menggunakan borang kajian isi sendiri melalui kajian rentas. Pembolehubah-pembolehubah yang digunakan dalam borang kaji selidik ini telah dikenal pasti daripada Model *Andersen Behavioural* bagi Penggunaan Perkhidmatan Kesihatan. Sejumlah 758 orang remaja sekolah berumur 18-19 tahun telah melengkapkan soal selidik kajian. Pelengkap kepada analisa kuantitatif, fasa kualitatif telah dijalankan melalui temuramah yang mendalam dalam kalangan 22 orang remaja. Kajian ini telah dijalankan pada bulan Februari hingga Ogos 2017. Regresi logistik berbilang bagi analisa sampel kompleks telah digunakan untuk menganalisa kuantitatif data. Analisa kandungan telah digunakan untuk menganalisa kualitatif data.

Keputusan: Hasil dapatan menunjukkan bahawa 53.2% remaja telah mendapatkan bantuan daripada mana-mana perkhidmatan dalam tempoh 12 bulan yang lepas tanpa mengira status kesihatan mental semasa. Daripada jumlah ini, hanya 3.7% daripada peserta mendapatkan bantuan daripada perkhidmatan kesihatan mental yang formal. Dalam kalangan mereka yang mendapat bantuan daripada mana-mana perkhidmatan, 96% daripadanya telah mendapatkan bantuan daripada sumber tidak formal. Manakala, mereka yang tidak mendapatkan bantuan daripada perkhidmatan kesihatan mental, 85.9% daripada mereka telah mendapatkan bantuan daripada sumber tidak formal. Dalam

kalangan remaja yang mempunyai masalah kesihatan mental yang ketara, 59.2% telah mendapatkan bantuan daripada mana-mana perkhidmatan dalam tempoh 12 bulan yang lepas dengan hanya 6.9% mendapatkan bantuan daripada perkhidmatan kesihatan mental yang formal. Kebanyakan remaja dalam kajian ini lebih cenderung untuk mendapatkan bantuan daripada keluarga (48%) dan kawan-kawan (38.5%). Dapatan daripada analisa regresi logistik menunjukkan bahawa remaja yang mempunyai pengetahuan yang cemerlang, sangat baik dan baik tentang gejala kemurungan (OR= 2.10, 95% CI= 1.31, 3.36), mempunyai gejala kemurungan sebelum kajian (OR= 1.44, 95% CI= 1.02, 2.02), mengetahui akan sumber-sumber sedia ada (OR= 1.90, 95% CI= 1.08, 3.36) dan memerlukan bantuan (OR= 1.61, 95% CI= 1.12, 2.29) lebih cenderung mendapatkan bantuan daripada perkhidmatan kesihatan mental formal dan tidak formal. Dapatan kualitatif mengesahkan dengan lebih lanjut bahawa kawan dan keluarga ialah sumber utama sekiranya mereka berhadapan dengan masalah kesihatan mental. Menurut para peserta, kebimbangan mengenai dinilai atau dilabel adalah halangan paling utama untuk mendapatkan bantuan professional bagi masalah kesihatan mental. Diikuti dengan halangan logistik, pengalaman yang negatif dengan perkhidmatan penjagaan kesihatan, kerahsiaan dan amanah, dan kesukaran atau keengganan untuk meluahkan emosi.

Kesimpulan: Hasil dapatan menunjukkan kepentingan dalam meningkatkan pengetahuan remaja tentang kesihatan mental, meningkatkan kesedaran mengenai sumber-sumber kesihatan mental sedia ada dan menambahbaik tingkah laku mendapatkan bantuan dan capaian kepada perkhidmatan kesihatan mental. Usaha lanjut perlu dibuat untuk menangani halangan-halangan dan menyediakan perkhidmatan kesihatan mental mesra remaja.

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LIST OF SYMBOLS AND ABBREVIATIONS

ATSPPHS	:	Attitudes Toward Seeking Professional Psychological Help Scale
CFA	:	Confirmatory Factor Analysis
CITC	:	Corrected Item Total Correlation
DASS	:	Depression, Anxiety and Stress Scale
DOSM	:	Department of Statistics Malaysia
GP	:	General Practitioner
IASMHS	:	Inventory of Attitudes Toward Seeking Mental Health Services
ICC	:	Interclass Correlation Coefficient
I-CVI	:	Inter-Content Validation Index
IDI	:	In-Depth Interview
MHSU	:	Mental Health Services Utilization
MOE	:	Ministry of Education
MOH	:	Ministry of Health
MPSS	:	Multidimensional Scale of Perceived Social Support
NGO	:	Non-governmental Organization
NHMS	:	National Health Morbidity Survey
NMRR	:	National Medical Research Registry
PSOSH	:	Perception of Stigmatization by Others for Seeking Help
PTSD	:	Post-Traumatic Stress Disorder
SAMT		Sekolah Agama Menengah Tinggi
SMK	:	Sekolah Menengah Kebangsaan
STPM	:	Sijil Pelajaran Tinggi Malaysia
TPB		Theory of Planned Behavioural
TRA		Theory of Reasoned Action

UMMC : University Malaya Medical Centre

WHO World Health Organization

WPRO Western Pacific Region Office

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter introduces the study by canvassing the research background, articulating the problem statement, detailing the rationale of the study, its objectives, research questions and hypotheses. The chapter concludes with an outline of the thesis structure and its chapters.

1.2 Adolescent's Mental Health

The World Health Organisation (WHO) defined mental health as a state of well-being in which every individual has his or her potential, ability to cope with the normal stresses of life, and the ability to work productively and contribute to the community (World Health Organisation, 2017). Mental health problems occur when there is a disruption in the interaction between the individual, group and the environment (Haniff, 2000). Mental health problems in adolescents are a broad spectrum of problems from a relatively transient response to life's stressors to more severe and persistent disorders that might need to be managed throughout their adulthood (Patel, Flisher, Hetrick, & McGorry, 2007).

Adolescents are a unique population in many aspects and face different types of mental health challenges. These challenges relate to their transition period from childhood to adulthood such as biological, cognitive, social, emotion and interpersonal changes (Offer, Howard, Schonert, & Ostrov, 1991). Although the transitions are part of an adolescent's life, the way an adolescent copes with these challenges can have a significant impact on their adulthood. Stressors, life events and personal problems could potentially influence their mental well-being more than any other age group (Zivin, Eisenberg, Gollust, & Golberstein, 2009). Therefore, they are more vulnerable to developing mental health problems (Kessler et al., 2005).

Several studies explained why adolescents are more susceptible to mental health problems compared to other age groups. A systematic review by Giedd et al. (2008) reported that the emergence of a particular psychopathology is likely related to exaggerations of adolescent maturation process together with psychosocial such as school and relationship, biological, environmental factors, and hormonal changes (Giedd, Keshavan, & Paus, 2008). The fact that an adolescent is less likely to seek help for their mental health problems is also related to the brain maturation process. The prefrontal cortex plays an essential role in decision-making and good judgement when presented with stressful life situations or challenges. In adolescence, the prefrontal cortex is the last region of the brain to reach maturation. This delay in brain maturation could explain why some adolescents are unable to make good judgements when experiencing emotional problems (Arain et al., 2013).

Seeking appropriate help for mental health problems before they become severe is a known protective factor for mental well-being. It helps reduce an adolescent's risk of developing comorbidities later on in adulthood. Other than biological factors like brain maturation, many other factors influence an adolescent's decision to seek help from healthcare providers. These include individual factors such as gender norms, personal belief, the need for help, social support, perceptions of health providers as helpful and trustworthy, self-efficacy, and previous experience with help-seeking. Other contributing factors are availability of services, costs, distance and staff competency. These are known as exogenous factors (Barker, 2007).

Poor help-seeking behaviour and access to mental health services are also related to negative views about mental health care. Such negative behaviours include a refusal to use medication for treatment, admission to psychiatric hospital, and perceptions of professionals which are not helpful and undermine the seriousness of the problems

(Goodwin, Behan, Kelly, McCarthy, & Horgan, 2016; Reavley, Cvetkovski, & Jorm, 2011).

1.3 Problem Statement

1.3.1 Burden of Mental Health Problems

The following subsection addresses the burden of mental health problems among the adolescents globally, regionally and locally.

1.3.1.1 Global state of adolescents' mental health problems

Mental health problems among adolescents is a significant public health concern globally. Approximately 20%, i.e. one in five of adolescents worldwide, experience mental health problems and the most common are depression and anxiety (World Health Organisation, 2017). The prevalence of mental disorders is greater among adolescents aged 16 to 24 years and are often detected later in life during adulthood. In developed countries, the burden of mental disorders in young people aged 12 to 24 years ranges from 8% in the Netherlands to 57% in California, USA (Patel et al., 2007). Collishaw et al. (2010) compared the trend of adolescent emotional problems, i.e. depression and anxiety in two nationally representative English samples of youth 20 years apart in 1986 and 2006. They proved that emotional problems were more prevalent in 2006 (Collishaw et al., 2010). Another survey on lifetime prevalence of mental disorders among U.S adolescents reported that anxiety disorders were the most common condition, comprising 31.9%. The median age of onset for the disorder was earliest for anxiety (6 years), 11 years for behavioural problems, 13 years for mood disorder and 15 years for substance use (Merikangas et al., 2010). This evidence shows that the common mental health disorders in adults often first emerged in childhood and adolescence. In developing countries, the burden is even higher due to the lack of access to care. The average expenditure on mental health is less than 1% of total health spending compared to high-

income countries where the average spending is 5% of total health costs (World Health Organisation, 2011).

Meanwhile, in Malaysia, mental health expenditure was reported to comprise only 0.39% of the total health budget (World Health Organisation, 2011). Global statistics showed that 85% to 90% of adolescents with mental health problems live in low-income countries (Chisholm, 2013; Patel, 2007). The burden of mental health problems among adolescents can be shown through Disability-Adjusted Life Years (DALYs). Globally, mental disorders are among the top five causes of Disability-Adjusted Life Year (DALY) among 10 to 19 year-old adolescents (World Health Organisation, 2015b).

1.3.1.2 Adolescent mental health problems in the Western Pacific Region

Mental health problems among adolescents in the Western Pacific Region (WPRO) are similar to the global situation. The Australian National Survey Mental Health and Well-being reported that at least 14% of adolescents younger than 18 years were diagnosable with a mental health problem and substances use disorder in the last 12 months. The figure rose to 27% in the 18 to 24 years age group. Mental disorders in young people contributed to 60% to 70% of total DALYs (Patel et al., 2007), with depression alone contributing to 5.7% of the regional disease burden (World Health Organisation, 2015c).

Depression and anxiety are the most common mental health problems among adolescents in this region. In the Philippines, over 42% of adolescents showed signs of depression (World Health Organisation, 2015a). Untreated depression due to lack of human resources in many countries in this region leads to undesirable outcomes such as suicide. Suicide is among the top ten causes of death in some countries in WPRO (World Health Organisation, 2015c). In Vietnam for instance, the number of suicidal ideation and self-inflict among adolescents and youths aged 14 to 24 years demonstrates an upward

trend from 2003 to 2008 (World Health Organisation, 2015a). In neighbouring country Singapore, the Mental Health Survey in 2010 showed that the onset of adults' mental health problems is in childhood (Chong et al., 2012). Anxiety and depression in the 15 to 34 years age group was the top healthcare burden in Singapore (Lim, Ong, Chin, & Fung, 2015).

1.3.1.3 Adolescent mental health problems in Malaysia

In Malaysia, the prevalence of mental health problems among individuals aged 16 and above increased approximately threefold from 1996 with 10.7%, to 11.2% in 2006 and 29.2% in 2015 (Institute for Public health (IPH), 2015). The National Health and Morbidity Survey (NHMS) 2015 reported that the prevalence was highest among youth aged 16 to 19 years at 34.7% (95% CI 31.4, 38.0) with an overall prevalence of 29.2% (Institute for Public health (IPH), 2015). Similar to global findings, anxiety and depression are the most common forms of mental health problems among adolescents in Malaysia (Institute for Public health (IPH), 2015). NHMS (2017) that focused on adolescents' health showed that the highest prevalence was anxiety with 39.7% followed by depression 18.3% (Institute for Public Health (IPH), 2017). The prevalence of suicidal ideation was 7.9%, and it was positively associated with depression, anxiety, stress, substance use, bullying, and abuse at home (Ahmad, Cheong, Ibrahim, & Rosman, 2014). Approximately 26.1% of adolescents in secondary schools reported that the primary stressor was academic-related (Yusoff, 2010).

1.3.2 Implication of Mental Health Problems

Mental health problems have a profound and enduring effect on adolescents as they enter adulthood. Poor mental health is a lifelong vulnerability that leads to adverse outcomes in terms of health and development, educational attainment, substance abuse, violence, and reproductive and sexual health (Knopf, Park, & Mulye, 2008; Patel et al.,

2007). In addition, adolescents with a mental disorder experienced lower quality of life (Chen et al., 2006). Poor mental health is also associated with various social ills such as alcohol abuse, substance abuse, teenage pregnancy and delinquent behaviour (World Health Organisation, 2017).

Mental health problems are a substantial burden on mortality in young people (Patel et al., 2007). Untreated mental health problems may lead to life-threatening consequences such as suicide. Suicide accounted for 1.4% of all deaths worldwide and the second leading cause of death among those aged 15 to 29 years (World Health Organisation, 2017). The increasing trend of suicide among adolescents is attributed to increased rates of depression, exposure to alcohol and other drugs (Patel et al., 2007). In Malaysia, 7.9% of children and adolescents have suicidal ideation, a phenomenon associated with depression, anxiety, stress and substance abuse (Ahmad et al., 2014; Low & Binns, 2014). It is important to note that the impacts of mental health illnesses are not restricted to the individual, but they extend to family members, friends and society (Stengard & Appleqvist-Schmidlecgner, 2010).

1.3.3 Mental Health Services in Malaysia

Malaysia's mental health services started as early as 1827 (Chong, Mohamad, & Er, 2013). The services started with custodial care in mental institutions. Patients with mental illness were placed in a cell before being transferred to a mental institution. In 1959, psychiatric services expanded to general hospitals. In the 1970s, mental health services started to move towards community care through integration or decentralisation system as proposed by the World Health Organisation in 1990 (Haniff, 2000; Haque, 2005; Ministry of Health, 2011). This was based on the concept of wellness that targets healthy, at risk and mentally ill populations.

Primary care and public hospitals have integrated mental health services into the general health system. Primary care focuses mainly on the preventive, promotional activities and treatment services. Meanwhile, hospital-based care in district general hospitals, academic hospitals or central hospitals provides psychiatric inpatient wards, psychiatric bed, emergency department, outpatient clinics and specialist services for various age groups such as children, adolescents and older adults (World Health Organisation, 2003). Malaysia's adolescent mental health services have been carried out through outpatient services, inpatient services, ward referrals, hospital-based, collaboration with primary care clinics, schools, welfare department and non-governmental organisations (NGOs) (Ministry of Health, 2011).

The Healthy Mind Service was developed to cultivate healthy minds among the community and target groups. This program has been carried out by encouraging the community to screen their mental health status and risk factors at health clinics. Its service is available at schools, and it is an outcome of collaborations between the Ministry of Education and the Ministry of Health under the name the Healthy Mind Program. It was expanded in 2014 to all secondary schools focusing only Form Four students aged 16 years (Ministry Of Education, 2014). The program is conducted by the school counsellors. In this program, students' mental health status is screened for conditions such as depression, anxiety and stress. Those with severe and extremely severe cases are referred by the school counsellors or medical officers in the primary care clinic for further reassessment and intervention such as relaxation therapy and coping skills (Malaysia. Ministry of Health. Disease Control Division. Mental Health Unit, 2012.). There is also a school health service provided by the school health team, meant for all adolescents in primary and secondary schools. The main focus is physical health. For mental health, observational methods are used to detect mental health problems among adolescents. Students with abnormal behavioural changes will be referred to either the school health

doctor or children and adolescent mental health team (Ministry Of health. Family Health Division. School Health Unit, 2013).

The Kafe@TEEN Adolescent Centre was initiated by *Lembaga Penduduk dan Pembangunan Keluarga Negara* (LPPKN) under the Ministry of Women, Family and Community in 2005. This centre aims to improve the physical and mental health and social well-being of adolescents and young people aged between 13 to 24 years old. It provides health services, counselling services and educational activities. Adolescents with personal issues, emotional problems, peer conflicts and education-related problem can get help from this centre for free. These services are provided by a team of dedicated medical officers, nurses and counselors (Ministry of Women, Family and Community, 2014).

In Selangor, mental health services are accessible through primary healthcare centres, government and private hospitals, private clinics, the welfare department and different NGOs. For school-going adolescents, mental health services such as counseling can be sought from school counsellors and school health services. The primary health care system and school counsellor is the first point of contact and it is appropriate to address mental health problems among adolescents. The state of Selangor has a total of 74 primary healthcare centres, among the top ten states in Malaysia with the highest number of primary healthcare services. More than 50 per cent of primary healthcare centres in this state are equipped with Family Medicine Specialists (FMS) with the expertise to diagnose and manage mental disorders (Malaysian Healthcare Performance Unit 2016). Every high school on the other hand has at least one full-time counsellor (See & Ng 2010). The Malaysian mental health performance report in 2016 showed that the density of clinical workforce in mental health care in Malaysia was higher than the Western Pacific Region average (Malaysian Healthcare Performance Unit 2016).

1.3.4 Service Gaps

Help-seeking and service use behaviour is not solely an individual choice. It is also affected by service availability and accessibility. However, despite having well-established mental health services the number of adolescents who utilise them is disturbingly low compared to the rest of the population (Blanco et al., 2008). Evidence shows that none of Malaysia's school-going adolescents in one district in Selangor seeks help from primary care services (Aida et al., 2010). The disparity between the number of adolescents requiring mental health services and the number of adolescents accessing services is commonly referred to, as the 'service gap' phenomenon (Raviv, Raviv, Vago-Gefen, & Fink, 2009). Hence, 'service gap' may also influenced by individual self-perception about the ability to cope with problems greater than others. The distortions in self-perception influence the adolescent's willingness to seek professional help (Raviv, Raviv, Vago-Gefen, & Fink, 2009).

1.3.5 Rationale of the Study

Despite the availability of mental health services, a significant number of adolescents are reluctant to seek help for their mental health problems (Eisenberg, Golberstein, & Gollust, 2007; Gulliver, Griffiths, & Christensen, 2010; Hom, Stanley, & Joiner, 2015; Rickwood, Deane, & Wilson, 2007). Seeking appropriate help when experiencing emotional distress is a protective factor against mental illness. It has a buffering effect against mental illness, and results in better adjustment and less emotional and behavioural problems (Divin, Harper, Curran, Corry, & Leavey, 2018). However, the number of adolescents who accessed and used mental health services globally is disturbingly low (Blanco et al., 2008; Eisenberg et al., 2007; Eisenberg, Hunt, & Speer, 2012; Gulliver et al., 2010; Hom et al., 2015). A study by Blanco et al. among college students and non-college students showed that approximately 47% met the criteria for mental health

disorder, of whom only one fifth had access to mental health services (Blanco et al., 2008).

Meanwhile, in Malaysia, evidence showed that no school-going adolescents – or perhaps an extremely negligible amount – sought help from formal mental health services for their mental health problems. The majority of adolescents opted to seek help from informal sources such as family and friends (Aida et al., 2010). Given the lack of help-seeking habit in times of psychological distress, there is a need to study help-seeking behaviour among adolescents. It is crucial to look into the reasons as to why adolescents do not seek help from mental health services. The answer to 'why' is can be related to the factors pertaining to the individual, community or health care system. This study focuses on the factors that influence adolescents' help-seeking behaviour at the individual level. It investigates the facilitating factors and barriers in seeking help from Malaysia's formal and informal mental health services. The evidence from this study may help support the development of a comprehensive program tailored to the needs of adolescents as well as improving the accessibility and utilisation of existing services.

These adolescents were selected as study participants because of their vulnerability to mental health problems. As reported in the National Health Morbidity Survey 2015 (Institute for Public health (IPH), 2015), adolescents aged between 16 to 19 years are at the highest risk of having mental health problems compared to other age groups with a ratio of 1:3. Late adolescents are prone to risks of negative health outcome including depression, substances abuse and profound anxieties over body image preference as featured by the media (UNICEF, 2011). Moreover, adolescents aged 18 to 19 years are at greater risk of mental health problems due to the sharp social transition to adulthood. Help-seeking of late adolescents is different compare to young adolescents. They rely more on their peers or partner. In contrast, young adolescents seek help more from their

family (Rickwood et al., 2007). Furthermore, mental health problems are a sensitive issue to the adolescents and their parents, with a lot of stigma attached. Adolescents aged 18 to 19 years are able to bypass parental consent issues regarding help-seeking because have the legal authority to make decisions and are responsible for the consequences of their decisions (Fegert, Hauth, Banaschewski, & Freyberger, 2016). Thus, adolescents in this study were able to give consent to participate in this study.

In many empirical studies, late adolescents aged 18 to 19 years are categorised as adults. Rarely are late adolescents aged 18 to 19 years studied independently. In reality, late adolescents differ from adults in many ways; in terms of emotional and mental health needs and risk of exposure to mental health problems. This age group is mainly present in educational institutions such as secondary school, high school, colleges, pre-university, and matriculation. Their academic performance, education-related stress or parent's expectations may influence their mental well-being. Somehow, the inclusion of adolescents aged 18 to 19 in the adult's age group may result in an inaccurate interpretation or view on their help-seeking behaviour as well as mental health services utilisation. In this study, late adolescents were represented by secondary school students. The school setting provides an opportunity to address the mental health service needs and identify the obstacles that prevent adolescents from seeking help for their mental health problems. Schools are an ideal setting to initiate early mental health education, create awareness of available resources for mental health problems, and promote positive attitudes toward professional help-seeking (Kok & Low, 2017).

Many studies on mental health care service utilisation and help-seeking behaviour are focused on adolescents or adults with underlying mental health disorders such as suicide and major depression (Arria et al., 2011; Chikovani et al., 2015; Hom et al., 2015). However, healthy adolescents need to be evaluated for their health care-seeking

behaviour and mental health status, as there are many under recognised mental health problems among apparently healthy populations, including school-going adolescents. Fleury et al. (2014) studied a general population cohort which included late adolescents and found that participants without mental disorders used mental health services due to social support and income availability. Social support helps in the early detection of mental health problems due to early help-seeking from the respective services. This study attempts to address the needs for mental health assessment as well as mental health services among apparently healthy adolescents.

The motivation for studying the factors that influence the utilisation of formal and informal mental health services is to assist in the formulation of evidence-based programs or activities to improve help-seeking behaviour and accessibility to mental health services. Previous studies in Malaysia focused on the barriers to help-seeking in the context of primary care services (Aida et al., 2010). There is also a need to study the factors that influence adolescents' help-seeking which includes mental health knowledge, attitude toward seeking professional help, social support, and stigma (Chen et al., 2014; Cheung, Dewa, Cairney, Veldhuizen, & Schaffer, 2009; Gulliver et al., 2010; Rickwood et al., 2007).

With a greater understanding of these factors at the individual level, the public health approach to mental health education, promotion and advocacy can be strengthened and tailored to the adolescents' needs. Such needs may differ from an adult population or adolescents in other settings such as the university, welfare institution, juvenile institution, etc. In addition, this study's qualitative approach offers insight and a better understanding of why adolescents do not seek professional help and why they prefer to seek help from informal sources such as family and friends. Our findings serve as an input

to assist policymakers in implementing new policies and programs as well as strengthen existing initiatives.

Most of the published evidence on help-seeking behaviour and mental health services utilisation were derived from studies conducted in English-speaking countries such as the United States, the UK, Australia and Canada (Arria et al., 2011; Eisenberg, Downs, Golberstein, & Zivin, 2009; Eisenberg et al., 2007; Eisenberg, Hunt, Speer, & Zivin, 2011; Goodwin et al., 2016; Mariu, Merry, Robinson, & Watson, 2012). Population in non-western countries, especially the middle and lower-income regions are largely under represented, and little is known about their help-seeking behaviour and mental health service utilization. Existing evidence thus may not be sufficient, given that in middle and low-income regions, there are vast differences in cultural practices and norms, as well as the way health care systems are organized.

Most studies on adolescents' help-seeking behaviour in the context of mental health problems in Malaysia employed a cross-sectional study design. Very few adopted a mixed-methods approach (Aida et al., 2010; Bing et al., 2015; Yeap & Low, 2009). This study applies a different approach by using the sequential explanatory mixed-method study design with an in-depth interview to collect qualitative data. The qualitative component contributes to the evidence on the barriers in seeking help for mental health problems. The study findings will assist in developing programs, improving services, and reducing the barriers in seeking professional help. The combination of quantitative and qualitative methods provides an opportunity to explore and discover in-depth, the help-seeking behaviour of Malaysian adolescents and its barriers. Such data would enrich and strengthen current policies related to mental health for all adolescents, particularly late adolescents. The quantitative component adopted a cross-sectional design due to time constraint and logistics reasons.

The future well-being of a country depends on raising a generation of competent, skilled and healthy adults. Adolescents are at higher risks of not achieving "productive adulthood" as they struggle with issues of substance abuse, teenage pregnancy, mental illness and involvement with juvenile delinquencies. Tragedies involving adolescents with mental health issues are common in Malaysian society. It draws public health attention to introduce preventive measures to ensure the mental well-being of the adolescent population. The investments in activities and programs by various stakeholders to counter these issues have grown significantly over the past decade. This study was also conducted in line with the Western Pacific Regions agenda for implementing the mental health action plan in 2013 to 2020 which focuses on the promotion and prevention of mental health and strengthens the evidence and research for mental health (WHO, 2015c).

Lastly, the experiences of dealing with adolescents' mental health issues while working in healthcare setting as well as handling adolescents' mental health program in public health sector motivate the researcher to conduct this study. The findings are useful to strengthen the current mental health programs in Malaysia.

1.4 Research Questions, Study Objectives and Hypotheses

1.4.1 Research Questions

The research questions guiding this study are:

i. What is the adolescents' help seeking behaviour for their mental health problems?
ii. What are the factors associated with mental health service utilisation among adolescents?
iii. What barriers do adolescents perceive in seeking help for mental health problems?

1.4.2 General Objective

The purpose of this study is to identify the factors that influence the use of mental health services and barriers to seeking help for mental health problems among school-going late adolescents in Selangor, Malaysia.

1.4.3 Specific Objectives

i. To describe the adolescents' help-seeking behaviour for mental health problems.

ii. To identify the predisposing factors such as sociodemographic and belief that are associated with mental health services utilisation among schooling adolescents.

iii. To identify the enabling factors such as household income, awareness of the resources and social support, that are associated with mental health services utilisation among schooling adolescents.

iv. To identify the need factors such as perceived general health, perceived need for help and mental health status, that are associated with mental health services utilisation among schooling adolescents.

v. To explore the perceived barriers to seeking help for mental health problems among schooling adolescents.

1.4.4 Hypotheses

i. Adolescents are more likely to seek help from informal mental health services

ii. There is an association between predisposing factors and the use of mental health services by schooling adolescents.

iii. There is an association between enabling factors and the use of mental health services by schooling adolescents.

iv. There is an association between need factors and the use of mental health services by schooling adolescents.

1.5 Outline of the Thesis

This thesis is divided into six chapters. Chapter one introduces the study by providing a background of the research, and detailing the rationale and objectives of the study. Chapter two reviews the literature on adolescent help-seeking behaviour, mental health services utilisation, factors related to help-seeking and its barriers. It also explains the conceptual framework, and identifies the gaps found in literature. Chapter three presents the study methodology, namely the sequential explanatory mixed-methods design. It is divided into quantitative and qualitative phases. Chapter four documents the results of the study in the quantitative and qualitative sections, followed by the findings of the methodological triangulation. Chapter five contains the discussion and interpretation of the study findings, and their implications. Chapter six concludes the study with a summary of the overall findings. It also provides recommendations based on the study findings for future research. The overview of the thesis is presented graphically in Figure 1.1.

1.6 Conclusion of Chapter One

In summary, the burden of mental health problems among adolescents and its implications are a significant public health concern. Despite the growing prevalence of mental health problems and availability of the mental health services, the number of adolescents who seek help remains low. Therefore, the main objective of this study is to provide a better understanding of the factors that influence the use of mental health services among adolescents and its barriers.

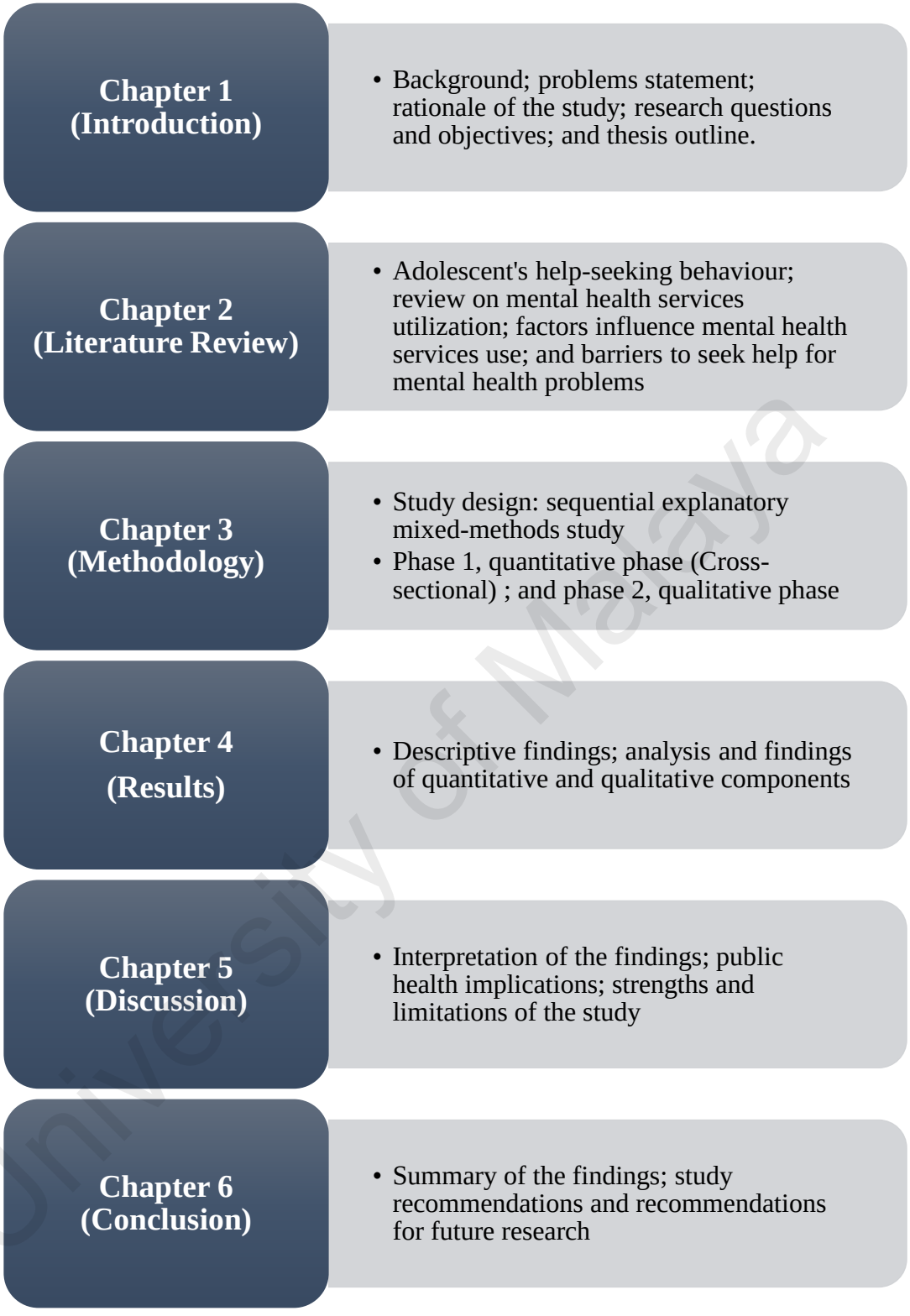

Figure 1.1: Thesis Outline

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on help-seeking behaviour of adolescents, the factors influencing the use of mental health services and its barriers. Based on the review, the study's conceptual framework is then formed and elaborated.

2.2 Searching for the Relevant Literatures

The literature review was conducted by reviewing all relevant studies internationally and locally. The search was conducted for relevant literature dated between the year 2007 and January 2019 using online databases: PubMed, Web of Sciences (WoS), Scopus, EBSCOHost-MEDLINE complete, Science Direct and Google Scholar. Articles were searched using the following keywords: (1) mental health services utilisation, (2) mental health service(s) (2) help-seeking, (3) seeking help, (4) help-seeking behaviour, (4) adolescent(s), (5) teenager(s), and (6) youth (s). Keywords were combined using the Boolean operator. Studies that met the inclusion criteria, (1) published in English, (2) from 2007 until 2018 (3) address or contain information on help-seeking behaviour, and (4) include the studies on facilitating factors and barriers toward mental health service use or help-seeking were included in the review. Quantitative and qualitative studies were included. The references of all the articles retrieved were screened to identify additional potentially relevant studies.

2.2.1 Study Selection

There were 6252 articles found through the search of databases. All articles were evaluated against the inclusion criteria. Articles that did not meet the requirement were excluded from the literature review, resulting in a total of 69 articles that were retrieved and included in the literature review (Figure 2.1).

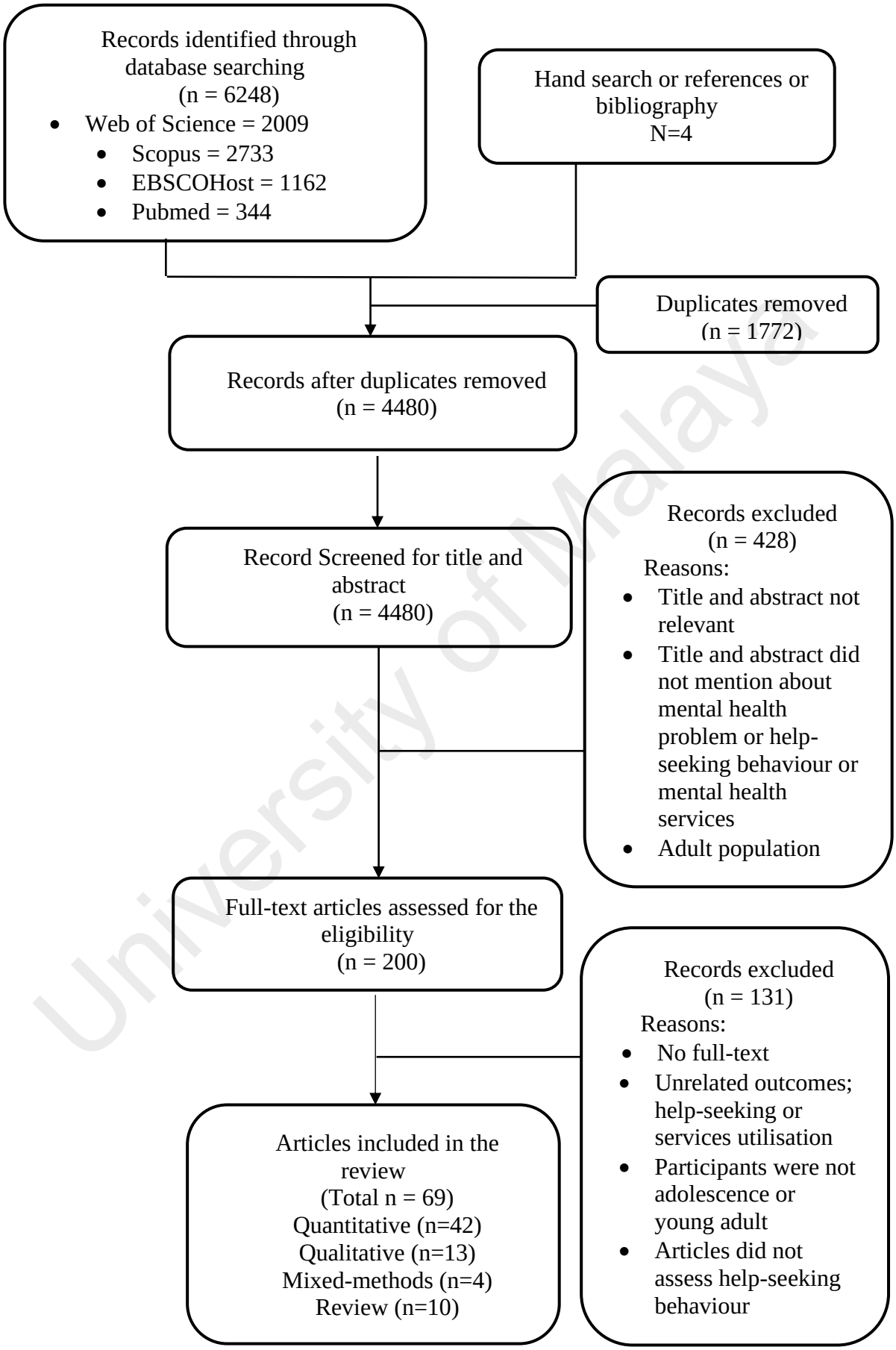

Figure 2.1: Number of Articles Included in the Literature Review

2.3 Adolescent's Help-Seeking

Adolescents' help-seeking is defined as an action carried out by an adolescent who perceives a need for personal, psychological, effective assistance or health or social services with the purpose of meeting his or her need positively. It is also defined as a request for assistance from informal sources or formalised services to resolve emotional, behavioural or health problems (Barker, 2007). There is formal and informal help-seeking. Formal help-seeking refers to the help sought from professionals who have a legitimate role in providing relevant advice, support or treatment. On the other hand, informal help refers to help received from one's social network such as friends, family and kinship networks (Barker, 2007). Nowadays, with advanced technologies, assistance can be delivered online and through computer-mediated processes. A systematic review by Rickwood & Thomas (2012) included 316 quantitative and qualitative studies and showed that many studies had covered various type of help-seeking sources. It reported that most of the studies focused on formal sources rather than informal sources. About 66% of the studies addressed help-seeking from formal sources, 32% addressed both formal and informal sources, and only 2% addressed informal sources (Rickwood & Thomas, 2012).

While the prevalence of poor mental health is increasing in adolescents, mental health help-seeking remains low (Divin et al., 2018). Studies reported that adolescents are less likely to seek help from professional or formal sources. Across the studies, more than 50% of adolescents prefer to seek help from family and friends. (Aida et al., 2010; Boyd et al., 2011; Cakar & Savi, 2014; Chang, 2008; Eisenberg et al., 2011; Goodwin et al., 2016; Lally, Conghaile, Quigley, Bainbridge, & McDonald, 2013; Leavey, Rothi, & Paul, 2011; Seyfi, Poudel, Yasuoka, Otsuka, & Jimba, 2013). This phenomenon is related to their social cognitive perspective, as family is more influential for younger adolescents, while peers and partners become more important in late adolescents (Rickwood et al.,

2007). The informal sources of help become a more popular choice for adolescents because of familiarity and interpersonal relationships that developed prior to the problem (Aida et al., 2010). A qualitative study by Griffiths et al. (2011) offers insights into why most adolescents preferred to seek help from family and friends. More than 80% of the study participants reported more advantages than disadvantages of seeking help from informal sources. The advantages include providing social support such as emotional, informational, companionship and instrumental support. In addition, family and friends have background knowledge of them and their circumstances which gives them an opportunity to offload the burden associated with mental health problems (Griffiths et al., 2011).

Professional help is viewed as helpful when the problem becomes more serious and unable to cope with it (Leavey et al., 2011). Adolescents may also seek help from the school counsellors for their mental health problems due to availability, accessibility, trust and being a free service (Chang, 2008). In contrast, other studies show that school-based professionals were less likely to be rated as the preferred choice (Leavey et al., 2011).

2.4 Mental Health Services

The provision of mental health services differs in every country. Mental health services are 50 times more accessible in wealthy countries than their middle or low-income counterparts meanwhile, developing countries have severely limited access to mental health care (World Health Organisation, 2015b). The WHO has developed a model to optimise mental health services through various sources. This model is named “WHO Services Organisation Pyramid for an Optimal Mix of Services for Mental Health”, and it emphasises the integration of primary mental health care in support by other levels of care. The main principle of this model is that no single service setting can meet all mental health needs. Thus, formal and informal services play an important role in mental health

provision. This mental health service has been explained in a pyramid scheme in Figure 2.2. It provides good use of available resources to optimise the management of individuals with mental health problems. It involves all level of care starting from the bottom of the pyramid which is self-care up to the top which is formal mental health services. Self-care is a leading focus in the model where individuals with support from family and friends are responsible for managing their mental health problems. Self-care can be effective when supported by formal health services. Informal mental health care comprises services in the community that are not part of the formal health and welfare system. It is usually accessible and acceptable to the individual with mental health problems but does not form the core of mental health provision. Furthermore, mental health services at the top of the pyramid are provided by formal primary health care. The model provides an essential guide to a country in transforming their mental health service from the bottom to the top (World Health Organisation, 2009).

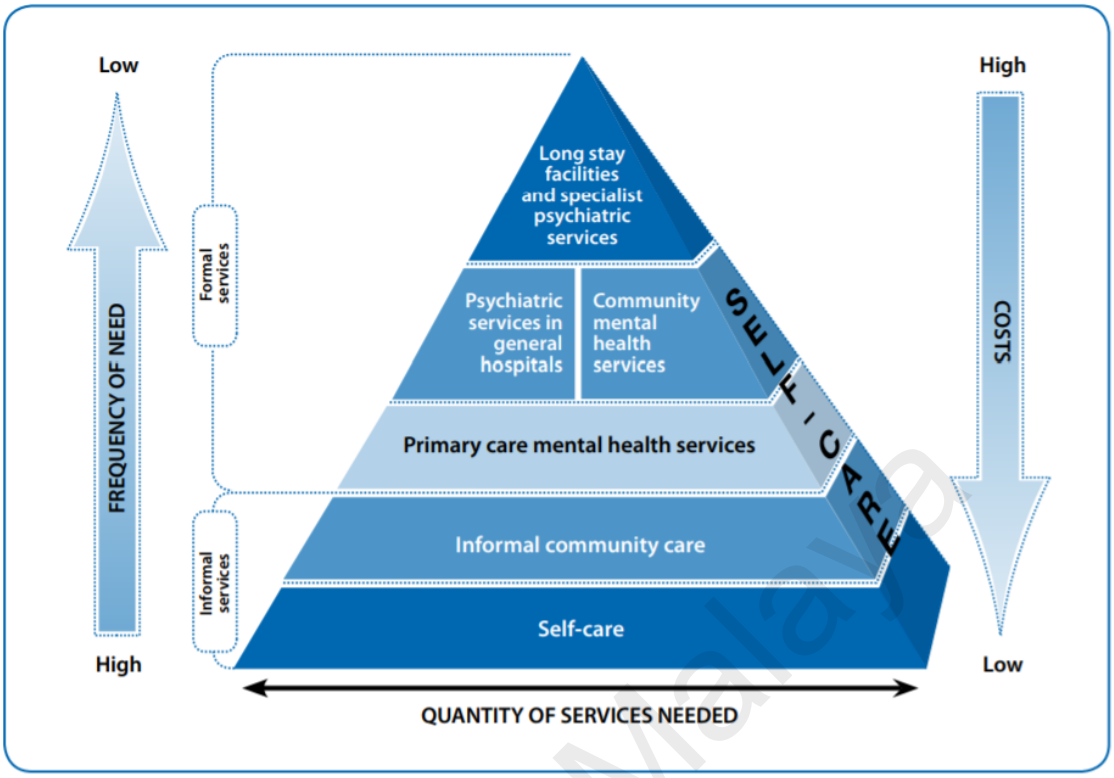

Figure 2.2: WHO Service Organization Pyramid for an Optimal Mix of Services for Mental Health

Source: (World Health Organisation, 2009) Improving health system and services for mental health Retrieved from www.who.int/mental_health/policy/services/mhsytems/en

2.4.1 Mental Health Services Use

Mental health services utilisation is a complex process that involves help-seeking and access to available services. It has been defined broadly as ranging from clinical use to social, behavioural processes. In explaining the use of health service in existing literature, common terms are access, help-seeking and utilisation. Access is used to describe the point of admission to healthcare services or available services. Meanwhile, help-seeking refers to the behavioural or social process through which patients enter the health system, and utilisation is the actual use of health services. In this study, the three terms are used interchangeably in describing health service use (Rew, 2005).

Adolescents are known to be reluctant to seek help from mental health services. Globally, mental health services utilisation rates are disproportionate compared to the trend of mental health problems of adolescents. The World Mental Health Survey (WMHS) analysis of seventeen countries reported that service utilisation in developed countries ranged from 4.3% in Italy to 17.9% in the USA (Wang et al., 2007). The prevalence of adolescents with mental health problems who sought help from mental health services is consistently low with less than 50% in many other studies (Al Riyami, Al Adawi, Al Kharusi, Morsi, & Jaju, 2009; Breland, McCarty, & Richardson, 2014; Eisenberg et al., 2007; Eisenberg et al., 2011; Eisenberg, 2012; Hom et al., 2015; Kim, Lim, Chung, Noh, & Shin, 2014; Nam, Wilcox, Hilimire, & DeVylder, 2018; Prochaska, Le, Baillargeon, & Temple, 2016; Vanheusden et al., 2008; Wu et al., 2012). A systematic review by Rowe et al. (2014) conducted among adolescents in schools reported that only 13% of adolescents sought treatment from formal services for their self-harm. Another review by Eisenberg, Hunt and Speer (2012) showed a similar finding where only 18% of college students received mental health services in the past 12 months.

School-going adolescents differ from non-school attending adolescents or institutionalised adolescents in terms of the environment and mental health risks. School settings are typically interconnected with resources such as school counsellor and school-based mental health service that act as a gatekeeper to mental health services (Wu et al., 2012). Five studies were conducted in school settings with adolescents aged from 14 to 23 years (Al Riyami et al., 2009; Kim et al., 2014; LeCloux, Maramaldi, Thomas, & Wharff, 2016; Prochaska et al., 2016; Wu et al., 2012). Out of these, two measured the mental health services by assessing the use of counselling and school-based services. Both studies show poor rates of mental health services use (LeCloux et al., 2016; Wu et al., 2012). Whereas, the other three studies measured the professional mental health service use, which reported extremely low rates of utilization ranging from 2% to 9.4% (Al

Riyami et al., 2009; Kim et al., 2014; Prochaska et al., 2016). A study also found that no school-going adolescents sought help from mental health services for anxiety (Al Riyami et al., 2009).

On the other hand, 13% of college students aged 18 to 19 years were reported to seek help from counselling services. The rates were slightly higher among adolescents with subclinical symptoms, at 17% (Rosenthal & Wilson, 2016). A recent study demonstrated that 40% college students had used mental health services (Nam et al., 2018). Another survey conducted among college students aged 18 to 24 years reported only 15% receiving mental health services in the past year. Although the majority were screened positive for depression and anxiety disorders, mental health services were still underutilised where less than 40% received the treatment needed (Eisenberg et al., 2007). However, the study addressed a slightly different age group – the young adults.

Some studies on help-seeking and mental health services utilisation were conducted among individuals with underlying mental health problems (Andersson et al., 2013; Breland et al., 2014; Cheung et al., 2009; Gagné, Vasiliadis, & Préville, 2014; Nestor, Cheek, & Liu, 2016; Prokofyeva, Martins, Younès, Surkan, & Melchior, 2013). The proportion rates for those who used or sought help from mental health services are lower than adolescents without or with subclinical symptoms of mental health problems (Nam et al., 2018).

In Malaysia, a study conducted by Aida et al. (2010) among secondary school adolescents aged 16 to 17 years showed that none of the adolescents used mental health service in primary care setting for their mental health problems. Adolescents chose to seek help from friends and family, with a proportion of 77.7% and 60% respectively (Aida et al., 2010). Another study among medical students revealed similar trends. The majority of students preferred to seek help from friends (74.5%), followed by parents (72.4%)

(Aida et al., 2010). Even though the age groups and settings are different, 16-17 years versus 20-25 years and schools versus universities, the patterns of preference for help-seeking remain the same.

The rates of service utilization could have differed due to the variations in the measurement of mental health service use. The majority of studies on mental health services focuses on access, help-seeking and use of the formal services or professional mental health (Al Riyami et al., 2009; Kim et al., 2014; Nam et al., 2018; Prochaska et al., 2016). Treatment or medication use and therapy are sometimes also considered as services utilisation (Eisenberg et al., 2007; Golberstein, Eisenberg, & Gollust, 2008, 2009; Prokofyeva et al., 2013). In addition, a study conducted among Chinese high school adolescents who had access to school-based and non-school-based mental health services reported that both services had poor utilisation rates (Wu et al., 2012). In view of the availability of counselling services in schools and colleges, some studies in turn, measured the use of counselling services for mental health problems. They showed that adolescents were less likely to use this service, a similar trend to the formal mental health service use (D'Amico, Mechling, Kemppainen, Ahern, & Lee, 2016; LeCloux et al., 2016; Rosenthal & Wilson, 2016). A recent study among Mexican adolescents assessed the use of healthcare and non-healthcare services such as religious advisers and complementary alternative services including traditional healers. It was reported that less than one-third of adolescents sought help from such services (Benjet et al., 2016). Table 2.1 summarises the evidence on help-seeking behaviour and mental health services

Table 2.1: Evidence of Help-Seeking Behaviour for Mental Health Problems

Author, year	Objective	Study design	Participants and setting	Outcomes	Findings
1-Eisenberg et al. 2007	To quantify mental health services utilisation and factors associated with help-seeking and access	Cross-sectional Web-based survey	N=2785 University students aged 18 years and above Country: US	Mental health services utilisation	MHSU -30% perceived need for help -15% received whether therapy or counselling for the past 12 months -79% did any visit to healthcare professional -without depression or anxiety, 12% used mental health service -services used was higher among depression and anxiety
2-Chang 2008	To examine informal and formal use	Cross-sectional	N=995 College students age 17 to 44 years old Private university Country: China	Help-seeking behaviour; formal and informal	<u>Help-seeking behaviour</u> 1- 10.4% had sought mental health services 2- Friends 79.2% 3- Mother 32.1% and father 19.8% 4- Siblings 26.9% 5- Teacher 11.8% 6- Counsellor 3.3% 7- Doctor 0.5%
3-Golberstein, Eisenberg & Gollust 2008	To investigate the association between perceived public stigma and mental health care seeking	Cross-sectional	N=2782 Undergraduate and graduate students aged 18 years and above University Country: US	Mental health services utilisation	<u>Help-seeking</u> 52% utilised mental health service in the past 12 months Participants with higher score of depression were significantly more likely to use services Perceived stigma did not associate with mental health services utilisation
4-Vanheusden et al. 2008	To examine the barriers-to-care	Cross-sectional	N= 2268 Young adults aged 19 to 30 years old General population Country: Netherlands	Mental health services utilisation	With internalising or externalising problems (n=364) • 34.5% use mental health services

Table 2.1; continued

Author, year	Objective	Study design	Participants and setting	Outcomes	Findings
5- Al Riyami et al. 2009	To explore health services utilisation and barriers	Cross-sectional	N=1682 Adolescents and youths aged 14 to 23 years old Secondary school Country: Oman	Health services utilisation	<u>Health services utilisation</u> -None of the participants with anxiety disorder use the service -3.6% of the participants with mood disorders and 4.8% with Major Depression Disorder (MDD) used services for the past 12 months
6- Aida et al., 2010	Barriers to primary health care	Cross-sectional	N=175 Adolescents aged 15-17 years old Secondary schools Country: Malaysia	Help-seeking behaviour	<u>Help-seeking behaviour</u> 1- Friends 77.7% 2- Parents 60% 3- Siblings 45.1% 4- Relatives 2.9% 5- Internet chat friends 9.7% 6- Religious people 16% 7-Counsellor 11.9% 8- Mental health professional 7.4% 9- Teacher 9.7% 10- Primary health care provider 3.4%
7- Eisenberg et al. 2011	To study service utilisation and help-seeking behaviour for mental health problems	Cross-sectional	N=14175 Adolescents and adults aged 18 years and above (majority 18 to 22 years) Schools Country: US	Mental health services utilisation	-Any visit to healthcare provider 80.1% -With mental health problems: 35.6% received mental health services -Received counselling or therapy form campus provider 48.6% -80% got counselling or support from non-professional • Friends 70.5% • Family members 52.5% -15.8% did not seek any help
8- Mariu et al. 2012	To study help-seeking for mental health problems	Cross-sectional	N=9366 Adolescents aged 12 to 18 years Secondary schools Country: New Zealand	Help-seeking form GP for mental health problems	-15.4% aged 17 years old and above had sought help from GP

Table 2.1; continued

Author, Year	Objective	Study design	Participants and setting	Outcomes	Findings
9- Wu et al. 2012	To examine rates of mental health service use and its associated factors	Cross-sectional	N=1891 Adolescents aged 15 to 18 years old High schools Country: China	Mental health services use	Rates of mental health services use -5% had used school-based services -4% had used non-school based mental health services (e.g. psychiatrist)
10- Lally et al. 2013	To ascertain perceived public mental illness stigma and help-seeking intention	Cross-sectional	N= 735 University students aged 17 years and above Universities Country: UK	Help-seeking intentions	Help-seeking preference 1-Doctor 30.6% 2-Family member 22.2% 3-Counsellor 17.6% 4-Friend 12.9%
11- Sefyi et al. 2013	To examine association between attitude and intention to seek help	Cross-sectional	N=456 Undergraduate university students age 18 to 25 years University Country: Turkey	Intention to seek professional psychological help	-20% of students had never consulted a mental health professional for psychological problems -Most of students turned to family and friends -Half were not aware of available services in campus
12- Breland et al. 2014	To evaluate the determinants of mental health service utilisation among depressed adolescents	Cross-sectional	N=444 Adolescents aged 13 to 17 years old with positive depression screening in Group Health facilities Country: US	Mental health service utilisation (treatment use)	-18% who screened positive depression used mental health service -Among those with self-reported depression, 53% received mental health service

Table 2.1; continued

Author, year	Objective	Study design	Participants and settings	Outcomes	Findings
13- Cakar & Savi 2014	To explore help-seeking sources of adolescents	Cross-sectional	N=252 Adolescents aged 15 to 18 years old High schools Country: Turkey	Help-seeking	Help-seeking preferences -Higher proportion received help from friends and family -Males were less likely to seek help
14- Kim et al. 2014	To investigate sociodemographic and emotional behaviour factors associated with use of mental health service	Cross-sectional	N=1857 Adolescents aged 14 to 16 years Schools Country: Korea	Mental health services utilisation	-2.1% received mental health services -3.3% of the adolescents who perceived need used the mental health services -None of sociodemographic factors associated with services use
15- Goodwin et al. 2016	To examine help-seeking intentions	Cross-sectional	N=258 First year university students aged 18 and above (90% 18-24years) University Country: Ireland	Help-seeking behaviour	<u>Sources of professional help</u> -27.9% sought help from professional help for mental health problems -Counsellors were widely use professional source -Psychologist and psychiatrist among the commonest professional sources -Informal sources: • Friends • Parents • Internet and chatroom (12.2%) -Majority used social media, blogs, forums and chatrooms
16- Prochaska et al. 2016	To study the odds of receiving professional mental health treatment	Cross sectional	N=733 Adolescents aged 17 to 19 High schools Country: US	Utilisation of professional mental health services	-Overall, 9.4% received mental health treatment -With anxiety=11.3%, depression-13.4% -Increase number of mental health problems increased rate of mental health services used

Table 2.1; continued

Author, year	Objective	Study design	Participants and setting	Outcomes	Findings
17- Nam et al. 2018	To identify correlates of services utilisation and perceived need for care	Cross-sectional	N=190 College students with suicidal ideation Country: US	Services utilisation	40% has use mental health professional services
18- Leavey et al., 2011	Help-seeking preferences and attitudes	Mixed-methods: Cross-sectional survey and focus groups	Adolescents aged 14-15 years old at schools Country: UK	<u>Quantitative results</u> Help-seeking preferences for anxiety and depression: 1-Friends (66-68%), 2-Mother (45%), 3-Father (30%), 4-Family doctor (9-10%) 5-Teachers and counsellor (12-16% 6-Telephone helpline (6%)	
19-Boyd et al., 2011	To investigate help-seeking preference and intention, it's predictors	Mixed-methods: cross-sectional and open-ended survey	N=201 Adolescents aged 11 to 18 years at rural schools without mental health problem Country: Australia	<u>Quantitative results:</u> • Seeking professional help 1- Professional 55.7% 2- School counsellor 54.5% 3- Local GP 42% 4- Psychologist 38.7% 5- Friends 57.3% 6- Family 43.8% <u>Qualitative results</u> • Help-seeking sources 1- School counsellor 29% 2- Local GP 27% 3- Psychologist 13%	

2.5 Factors Influencing Help-seeking and Use of Mental Health Services

Help-seeking is not merely a process of identifying the needs, deciding to seek help and carrying out the decision. It is much more complicated than that for the adolescent, as at each stage, these decisions are influenced by many factors. In this study, the factors were discussed based on Andersen's Behavioural Model of HealthCare Service Utilisation (Andersen, 1995).

2.5.1 Predisposing factors

Predisposing factors refer to the individual characteristics that influence adolescents' help-seeking behaviour and decision. These factors are present before the onset of mental health problems, and are not directly responsible for healthcare service use (Andersen, 1995). Several predisposing factors pertinent to the current study are elaborated in the following paragraphs. There were 31 articles addressed the predisposing factors in this study. Table 2.2 presents some evidence of these factors.

Service utilisation varies across sociodemographic variables such as age, gender and family history of mental disorder. Adolescents are least likely to seek healthcare and do not receive appropriate treatment needs (Eisenberg et al., 2012; Hom et al., 2015; Rickwood et al., 2007). In a sample of young people living in Sub-Saharan South Africa, it was found that younger participants aged 18 to 29 years were less likely to report having sought help from any healthcare staff for their mental health problems than their older counterparts (OR=0.45, CI 95% 0.28, 0.82, p-value 0.008) (Andersson et al., 2013). A study by Jorm, Wright and Morgan (2007) among Australian youths reported that those aged 18-25 years would seek more help from GPs or medical doctors than those aged 12 to 17 years (OR=1.16, p-value <0.001). A study conducted among secondary school students in Malaysia found no difference among different adolescent age groups concerning their help-seeking behaviour from mental health professionals (Bing et al.,

2015). Researchers suggested that the absence of age difference may be due to other factors such as cost, lack of knowledge about mental health system and availability of mental health services (Bing et al., 2015). Differences in help-seeking may also be attributed to their social cognitive skills. Older adolescents often possess better decision-making and social skills than younger adolescents, and this leads to a greater propensity to seek help (Bates, 2010, Rickwood et al., 2012). Other studies reported that younger adolescents exhibit more positive attitudes towards help-seeking than older adolescents (Ciarrochi, Wilson, Deane, & Rickwood, 2003; Farrand et al., 2007).

Gender also plays a role in mental health service use. Associations were frequently reported between gender and service utilisation. Females were more likely to seek help from mental health services compared to males (Al Riyami et al., 2009; Benjet et al., 2016; Cakar & Savi, 2014; Chang, 2008; Cheung et al., 2009; Eisenberg et al., 2007; Jorm et al., 2007; Yap, Reavley, & Jorm, 2013). In Omani secondary schools, female students were 13 times more likely to seek professional mental health services for their mental health problems compared to males (OR=13.5, CI 95% 2.0, 91.8) (Al Riyami et al., 2009). Similarly, among high school students in Turkey, males were less likely to seek and receive help from mental health professionals compared to females (p-value <0.05). In other studies, sex (female) was a significant predictor for seeking mental health services; the odds ratio ranged from 1.31 to 2.84 (Benjet et al., 2016; Chang, 2008; Cheung et al., 2009; Eisenberg et al., 2007; Jorm et al., 2007; Yap et al., 2013). This was further corroborated by a Malaysian study among adolescents in secondary schools which showed that male students were less willing to seek psychological help than female students (Bing et al., 2015). This gender gap can be explained by social norms where males are typically seen as masculine and expected to exhibit independence, emotional silence, self-reliance and rejection of personal weakness. These social norms are conflicting with the idea of getting professional help for mental health problems (Wendt

& Shafer, 2016). A systematic review by Seidler (2016) reported that traditional masculine norm has a threefold effect on their expression of symptoms, attitudes, intention and actual help-seeking behaviour and their symptom management. A qualitative study among college adolescents aged 17 to 18 years in the UK revealed that females were more able to express themselves emotionally, leading to help-seeking. On the contrary males viewed expressing one's emotions and seeking support as 'weak' and going against their masculine roles (Seamark & Gabriel, 2016).

Studies have also reported differences in help-seeking behaviour across ethnic groups. Most of these studies however, were conducted in Western countries (Magaard, Seeralan, Schulz, & Brütt, 2017; Lisa Michelmore & Peter Hindley, 2012). A study among adolescents in Columbia showed that non-Hispanic Blacks and Native Americans were less likely than Caucasians to seek help from professional mental health services (Nestor et al., 2016). In contrast, another study among college students in the US reported that there was no significant association between ethnicity and services utilisation for mental health problems (Nam et al., 2018). In Malaysia, studies about ethnicity and mental health service use are scarce. Chinese high school and college students reported a positive attitude toward seeking professional help (Goh et al., 2007). Similarly, a study among adolescents in local secondary schools reported that Chinese students displayed the highest willingness to seek professional help, while Malays and Indians showed a negative attitude toward professional help-seeking (Bing et al., 2015). However, this study was conducted in the Ipoh and Penang, two cities demographically dominated by the Chinese. Hence, it does not represent the ethnic makeup of Malaysia.

Associations between family structure and mental health services utilisation have also been documented (Jorm et al., 2007; Mariu et al., 2012; Ryan, Toumbourou, & Jorm, 2014; Vu, Biswas, Khanam, & Rahman, 2018). For instance, studies in secondary schools

in New Zealand reported that adolescents who were living with a single parent were more likely to seek help from the GP for their mental health problems (Mariu et al., 2012; Ryan et al., 2014; Vu et al., 2018). Among Australian adolescents, it was reported that living with parents increased the intentions to seek help from mental health specialists (OR=1.49) (Jorm et al., 2007). Number of siblings had no association with access or use of mental health services (Ryan et al., 2014). However, larger family size (number of siblings) is relatively high level of social support or access to more support networks that indirectly influenced their mental health well-being and needs (Mannion, 2013).

Parental background such as parental educational level (Benjet et al., 2016; Prochaska et al., 2016; Vu et al., 2018), occupational status and marital status (Ryan et al., 2014) have influence on adolescents' mental health service utilisation. A recent study reported that adolescents whose parents had a higher educational level (beyond high school) had higher odds of seeking help from professional mental health services in the past 12 months (OR= 2.69, 95% CI 1.06-6.81) (Prochaska et al., 2016). One possible explanation is that parents with higher education have more information about mental health and available services and sources of help. Thus, they are more able to identify the need for medical attention for their adolescent children (Benjet et al., 2016).

Several studies found an association between family history of mental illness and health service utilisation (Breland et al., 2014; Jorm et al., 2007; Prokofyeva et al., 2013; Villatoro & Aneshensel, 2014). Prokofyeva et al. (2013) found that adolescents with a family history of mental disorder were two times more likely to access medical care compared to adolescents with no family history of mental disorder (OR=2.37, 95% CI=1.67, 2.53). In addition, the odds of accessing mental health services in the US was higher among adolescents whose parents had a history of depression and anxiety (OR=4.12, 95% CI= 1.36, 12.48). A possible explanation is that family history may

facilitate the use of mental health services through the awareness of mental health problems and knowledge about help-seeking. Adolescents who have a family history of mental disorder may also seek help as prevention even in the absence of mental health problems (Prokofyeva et al., 2013; Villatoro & Aneshensel, 2014). They often get special attention from health professionals in terms of screening and early detection (Nierenberg et al., 2007). In addition, adolescents with mental health problems were more likely to report a parental history of the same problems due to greater sensitivity to the issue (Prokofyeva et al., 2013).

Health belief is a particularly important predisposing factor. According to Andersen (1995), belief refers to the attitudes, values, and knowledge that an individual has about health services. This belief might influence the perception of need and use of health services (Andersen, 1995). Four reviews reported that a positive attitude toward help-seeking or mental health services was a facilitating factor for mental health services utilisation (Gulliver et al., 2010; Hom et al., 2015; Jackson et al., 2007; Li, Dorstyn, & Denson, 2014). A cross-temporal meta-analysis of help-seeking attitudes found that attitudes toward seeking mental health service have become increasingly negative over 40 years (Mackenzie, Erickson, Deane, & Wright, 2014). It explains why young adults have lower rates of mental health service utilisation. However, younger adults in this study were defined from 25 to 64 which may or may not reflect actual adolescents' attitudes. The association between positive attitudes toward help-seeking and mental health service has been reported in several studies. Adolescents with positive attitudes were more likely to seek help from mental health professionals (Mojtabai, Evans-Lacko, Schomerus, & Thornicroft, 2016; Reynders, Kerkhof, Molenberghs, & Van Audenhove, 2014; Seyfi et al., 2013). Positive attitudes reflect a stronger intention and willingness to seek help (Mojtabai, Evans-Lacko, Schomerus, & Thornicroft, 2016). It may also be influenced by other factors such as higher level of family support, awareness on available

help sources and adequate knowledge on mental health (Mojtabai, Evans-Lacko, Schomerus, & Thornicroft, 2016; Seyfi et al., 2013). A negative attitude has been reported in qualitative studies as one of the reasons for not seeking help for mental health problems (Flink, Beirens, Butte, & Raat, 2014; Lynch, Long, & Moorhead, 2018).

The association between stigma and mental health service utilisation has also been documented in several other studies (Eisenberg et al., 2009; Golberstein et al., 2008, 2009; Lally et al., 2013; Reynders et al., 2014). A systematic review reported that stigma related to mental health services and illness was directly associated with less help-seeking for mental health problems. Higher self-stigma showed less active help-seeking but the result was not statistically significant, OR= 0.88, 95%CI 0.76-1.03 (Schnyder, Panczak, Groth, & Schultze-Lutter, 2017). Also, perceived stigma resulted in less willingness to seek help from mental health services (Reynders et al., 2014). However, no specific study has been done in Malaysia concerning stigma and adolescents' help-seeking or service use. Only one study mentioned adolescents' negative perceptions towards primary care services for mental health problems. Approximately 76% of adolescents were worried that people would know if they sought help from primary care for mental health illness (Aida et al., 2010).

Mental health literacy has important implications for appropriate help-seeking. Early recognition of mental health problems gives an individual the opportunity to achieve better long-term outcomes of mental well-being. In Singapore, Picco et al. (2017) found that those who were able to recognise mental disorders did not prefer to seek help from informal sources such as family and friends. It increased the likelihood of seeking help from professional helpers such as psychiatrists for dementia, depression and schizophrenia (Picco et al., 2017). Another study in Japanese schools reported that the ability to recognise mental illness in general significantly increased help-seeking from

friends (OR=1.29, 95% CI=1.17,1.41). In contrast to those who were able to correctly label illness, they were significantly more likely to get help from professionals (Yamasaki et al., 2016). Another study among pre-university college students aged 15-19 years reported that the percentage of mental health literacy among the participants was highly deficient (Ogorchukwu, Sekaran, Nair, & Ashok, 2016). In Malaysia, adolescents reported having very low percentages of problem recognition. Forty-nine percent perceived that their problem was not serious. Meanwhile, 14.9% perceived that they did not have any problem (Aida et al., 2010). A study on mental health literacy on depression conducted among adolescents in college and university showed moderate levels of mental health knowledge. Only 3.2% of adolescents failed to recognise the symptoms of depression. This awareness differed between genders as females were more aware of the symptoms than males (Khan, Sulaiman, & Hassali, 2010).

Table 2.2: Evidence of Predisposing Factors of Mental Health Services Utilisation

Authors	Objectives	Study design	Participants and setting	Outcomes	Findings
1)Jorm, Wright & Morgan 2007	To determine the intentions to seek help for mental health problems	Cross-sectional	N= 3746 Adolescents and young adults aged 12 to 25 years old In the general population Country: Australia	Help-seeking intentions	From GP/doctor/medical 1- Gender: being females were (OR 1.40) From mental health specialist 2- Living with parents (OR 1.49)
2)Al Riyami et al. 2009	To explore health services utilisation	Cross-sectional	N=1682 Adolescents and youths aged 14 to 23 years old in secondary schools Country: Oman	Health services utilisation	Gender: being females (OR 13.5)
3)Reavley, Cvetkovski & Jorm 2011	To examine factos associated with professional help-seeking	Cross-sectional	N= 8841 General population aged 18 years and above Country: Australia	Services use	Having a family history (OR 1.75)
4)Mariu et al. 2012	To study help-seeking for mental health problems	Cross-sectional	N=9366 Adolescents aged 12 to 18 years in secondary schools Country: New Zealand	Help-seeking from GP	Living with single parent (OR 1.88)
5)Sefyi et al. 2013	To examine association between attitude and intention to seek help	Cross-sectional	N=456 Undergraduate university students age 18 to 25 years Country: Turkey	Intention to seek professional psychological help	High level of positive attitudes (β=0.61)
6)Prochaska et al. 2016	To study the odds of receiving professional mental health treatment	Cross-sectional	N=733 Adolescents aged 17 to 19 in high schools Country: US	Utilisation of professional mental health services	Higher parental education (OR 2.6)
7)Yamasaki et al. 2016	To identify the adolescents' intention to seek help in faced with mental illness	Cross-sectional	N=9484 Adolescents aged 15 to 18 years old in schools Country: Japan	Hel-seeking intention	Recognised the mental illness (OR 1.58)

2.5.2 Enabling Factors

Enabling factors are defined as conditions which permit an individual to act to satisfy a need regarding health service use. Enabling conditions can be measured by family resources such as income and support (Andersen & Newman, 1973; Andersen, 1995; Babitsch, Gohl, & von Lengerke, 2012). There were 10 articles addressed the enabling factors in this study. Table 2.3 presents some evidence of these factors.

Household income reflects the social and economic status of the family as well as the adolescent. Studies have shown that those with low social economic or poor financial status are least likely to seek and access health services (Cheung et al., 2009; Eisenberg et al., 2007; Ryan et al., 2014). Very little is known about the socioeconomic status and mental health service utilisation in the Malaysian adolescent population.

Adolescents' mental health help-seeking and service use have been associated with the awareness of available resources (Eisenberg et al., 2007; Jorm et al., 2007; Lee, Ju, & Park, 2017). In Australia, a study among adolescents reported that the odds of using mental health services were 1.20 times higher among those who were aware of the services compared to those who were not (Jorm et al., 2007). Also, Lee et al. (2017) reported that a higher recognition rate of mental health centres was associated with more service utilization, OR=1.05, 95% CI=1.03-1.07. In Malaysia, a study reported that the majority of secondary school students were not aware of the mental services provided by primary care. This lack of awareness could be due to the assumption that primary health care mainly provides services for physical illness, and not emotional and mental health problems (Aida et al., 2010).

Social support is a protective factor against mental health disorders (Barker, 2007; Heerde & Hemphill, 2017). Numerous studies have reported social support as a predictive or facilitating factor for help-seeking and health service utilisation (Andersson et al.,

2013; Gagné et al., 2014; Gulliver et al., 2010; Hom et al., 2015; Jackson et al., 2007; Rowe et al., 2014; Wu et al., 2012). Researchers have identified that the main sources of social support for adolescents are friends and family (Andersson et al., 2013; Wu et al., 2012). In China it was reported that support from a parent was associated with mental health service use (Wu et al., 2012). In contrast, in the US higher parental support was associated with lower odds of utilising mental health services (OR=0.67, 95% CI=0.54, 0.93). In a recent qualitative study among Spanish adolescents, Camara et al. (2017) found that interpersonal relationships with friends and family act as important sources of social support. This social support must be familiar, mature, friendly, worthy and trusting.

Table 2.3: Evidence of Enabling Factors of Mental Health Services Utilisation

Authors	Objectives	Study design	Participants and setting	Outcomes	Findings
1) Jorm, Wright & Morgan (2007)	To determine the intentions to seek help for mental health problems	Cross-sectional	N= 3746 Adolescents and young adults aged 12 to 25 years old in the general population Country: Australia	Help-seeking intentions	Aware of the services (OR 1.20)
2) Cheung et al. (2009)	To study factors associated with mental health services utilisation	Cross-sectional	N=1252 Adolescents and youths age 15 to 24 years old in the general population Country: Canada	Services use	Lower income (OR 1.89)
3) Wu et al. (2012)	To examine rates of mental health service use and its associated factors	Cross-sectional	N=1891 Adolescents aged 15 to 18 years old in high schools Country: China	Mental health services use	Support from parent (OR 1.95)
4) Andersson et al. (2013)	To investigate factors related to help-seeking	Cross-sectional	N=977 Young adults and adults aged 18 to 40 years old In the general population Country: South African	Mental health services utilisation	Social support from family and friend (OR 1.63)
5) LeCloux et al (2016)	To study parental support and mental health services	Longitudinal study	N=20,745 Adolescents aged 13 to 17 years in schools Country: US	Mental health services utilisation	Parental support (OR 0.67)

2.5.3 Need Factors

Need factor is an immediate cause of health service use. It includes perceived need as well as evaluated need. A perceived need for health service reflects how an individual views or experiences their general health. It can be measured using the self-reported general state of health. An evaluated need represents professional judgement to determine the actual illness or problems (Andersen & Newman, 1973; Andersen, 1995; Babitsch et al., 2012).

Associations between mental health problems and help-seeking and health service use have been well-established (Al Riyami et al., 2009; Brown et al., 2014; Chang, 2008; Cheung et al., 2009; Eisenberg, 2012; Golberstein et al., 2008; Goodwin et al., 2016; Kim et al., 2014; Kleinberg, Aluoja, & Vasar, 2013; Mariu et al., 2012; Michelmore & Hindley, 2012; Mojtabai et al., 2016; Prochaska et al., 2016; Reavley et al., 2011; Rosenthal & Wilson, 2016; Rowe et al., 2014; Wu et al., 2012). However, some studies reported the opposite; people with mental health problems were less likely to seek help or use mental health services (Eisenberg et al., 2007; Kim et al., 2014; Vanheusden et al., 2008). This is further supported by findings saying that need factors were not associated with mental health services utilisation (Breland et al., 2014; Nam et al., 2018). The severity of the mental health problem plays a role in help-seeking and utilisation of mental health services. Al Riyami et al. (2009) reported in a study among school-going adolescents in Oman that increased severity of the illness was associated with health services use. In short, evidence pertaining to the association between having mental illnesses and service utilization has been mixed.

In terms of perceived need, Baker (2007) suggested that those most in need of mental health support are least likely to seek help for it. Adolescents admitted that the reason they did not seek help for their mental health problems was failing to perceive the need

for it. Researchers reported that these adolescents failed to recognise certain mental health problems and have normalised them. Adolescents believed that professional help-seeking should be reserved for situations that are more serious and severe (Freedenthal & Stiffman, 2007; Martinez-Hernaez, DiGiacomo, Carceller-Maicas, Correa-Urquiza, & Martorell-Poveda, 2014). In contrast, evidence has shown that adolescents who perceived the need for help utilised mental health services were more aware of sources of help and able to appreciate the needs for assistant (Eisenberg et al., 2011; J. E. Kim & Zane, 2016). A study among Korean adolescents showed that perceived need was influenced by the adolescents' underlying mental health problem (Kim et al., 2014).

General health condition also plays a role in health service utilisation. Research findings demonstrated that adolescents with chronic underlying conditions (Breland et al., 2014; Cheung et al., 2009; Gagné et al., 2014) or physical comorbidity (Andersson et al., 2013) or low self-rated general health (Kleinberg et al., 2013) were more likely to seek help or use health services. Poor health condition is linked to mental health problems as well as enhanced probability for asking help (Cheung et al., 2009; Kleinberg et al., 2013).

Table 2.4: Evidence of Need Factors of Mental Health Services Utilisation

Authors	Objectives	Study design	Participants and setting	Outcomes	Findings
1)Eisenberg et al. (2011)	To study service utilisation and help-seeking behaviour for mental health problems	Cross-sectional	N=14,175 Adolescents and adults aged 18 years and above (majority 18 to 22 years) Schools Country: US	Mental health services utilisation	Perceived need for help (OR 1.50).
2)Mariu et al. (2012)	To study help-seeking for mental health problems	Cross-sectional	N=9,366 Adolescents aged 12 to 18 years Secondary schools Country: New Zealand	Help-seeking from GP for mental health problems	Anxiety (OR 2.35) depression (OR 1.86)
3) Prochaska et al. (2016)	To study the odds of receiving professional mental health treatment	Cross-sectional	N=733 Adolescents aged 17 to 19 High schools Country: US	Utilisation of professional mental health services	Anxiety (OR 2.09) Depression (OR 2.84)

2.6 Barriers to Seeking Help for Mental Health Problems

There are numerous studies addressing the barriers to seeking professional help and utilising mental health services. A total of 25 articles discussed the barriers to help-seeking or reasons why adolescents did not seek help for their mental health problems. Out of the 25 articles, nine were quantitative studies, 12 were qualitative studies and four were mixed-methods studies. Tables 2.4 to 2.6 illustrate the findings of these studies.

Most qualitative studies reported on the barriers to mental health service utilisation. Seven studies used in-depth interviews (IDI), six used focus group discussion (FGD), two used open-ended surveys, and three used the phenomenological approach. All of the studies were conducted in Western and high-income countries. Other than adolescents,

some studies included young adults aged between 20 to 24 years as study subjects (Boyd et al., 2007; Freedenthal & Stiffman, 2007; Martinez-Hernaez et al., 2014; Price & Dalgliesh, 2013). Many of the studies were also conducted among apparently healthy adolescent populations (Flink et al., 2014; Freedenthal & Stiffman, 2007; Martinez-Hernaez et al., 2014; Savage et al., 2016).

Stigma appeared as the main barrier in many of these studies (Eisenberg et al., 2012; Gulliver et al., 2010; Hom et al., 2015; Hunt & Eisenberg, 2010; Rickwood et al., 2007). A similar finding was reported in many qualitative studies (Aisbett, Boyd, Francis, Newnham, & Newnham, 2007; Boyd et al., 2007; Czyz, Horwitz, Eisenberg, Kramer, & King, 2013; Savage et al., 2016; Seamark & Gabriel, 2016). Due to the stigma attached to mental illness, adolescents felt uncomfortable when discussing their mental health issues with professionals (Czyz et al., 2013). Besides stigma, embracement or shame to seek help is one of the reasons for avoiding professional help (Freedenthal & Stiffman, 2007; Tharaldsen, Stallard, Cuijpers, Bru, & Bjaastad, 2016). Adolescents were afraid of being judged, labelled and rejected by their close social network such as family and peers (Lynch et al., 2018; Molock et al., 2007; Seamark & Gabriel, 2016). A study among Norwegian upper secondary school students described mental health problems as taboo and associated with prejudice (Tharaldsen et al., 2016). Other than the fear of stigmatisation and embracement, adolescents also believed that seeking professional help for mental health problems was a sign of weakness (Boyd et al., 2007; Lynch et al., 2018; Tharaldsen et al., 2016), particularly among male adolescents (Seamark & Gabriel, 2016). Other stigma-related barriers were concern about people finding out or knowing that they sought help from professionals (Tharaldsen et al., 2016).

From the existing literature, barriers to seeking help originate from an individual's belief and perception such as reliance on the self, lack of perceived need, and belief about

treatment effectiveness (Eisenberg et al., 2012; Gulliver et al., 2010; Hom et al., 2015; Hunt & Eisenberg, 2010). Self-reliance occurs when the adolescents believe that the problems are normal or not serious, and it could be solved or managed on their own (Boyd et al., 2007; Czyz et al., 2013; Freedenthal & Stiffman, 2007; Martinez-Hernaez et al., 2014; Savage et al., 2016). As quoted from a qualitative study, "I figured it out on my own that I should be smarter" and "it was my problem, so I helped myself" (Freedenthal & Stiffman, 2007). Self-reliance is a protective factor for mental health. However, Labouliere et al. (2015) reported that adolescents with extreme self-reliance were more likely to have more mental health problems and were less likely to seek help (Labouliere, Kleinman, & Gould, 2015).

Limited knowledge of available resources is another reason for not seeking appropriate help for mental health problems. For adolescents, the school counsellor and school nurses are the most familiar sources of help in school settings (Tharaldsen et al., 2016). Several studies described that adolescents did not know or were unaware of the available services (Boyd et al., 2007; Martinez-Hernaez et al., 2014; Price & Dalgliesh, 2013; Seamark & Gabriel, 2016), while other studies reported that adolescents were not familiar with mental health professionals (Flink et al., 2014). Furthermore, experience with the service or mental health professional also plays a role in help-seeking. Studies reported that a negative experience stopped adolescents from seeking professional help (Czyz et al., 2013; Seamark & Gabriel, 2016).

Logistics barrier is an equally important factor preventing adolescents from seeking help, such as lack of accessibility (Martinez-Hernaez et al., 2014; Sakai et al., 2014), especially in rural areas where transportation can be a challenge (Aisbett et al., 2007). Cost and finances are other examples of logistics barriers (Czyz et al., 2013; Freedenthal & Stiffman, 2007). Lack of time to see professionals due to a tight schedule (Czyz et al.,

2013), difficulty to schedule appointments (Sakai et al., 2014), and long waiting times (Czyz et al., 2013; Sakai et al., 2014) similarly fall under logistics barriers. Some studies reported that not knowing where to seek help is a logistics barrier (Czyz et al., 2013; Lynch et al., 2018).

In addition, confidentiality, trustworthy, and anonymity influence help-seeking behaviour. Several studies reported adolescents' concern about these factors when seeking for help (Flink et al., 2014; Molock et al., 2007; Price & Dalgliesh, 2013; Tharaldsen et al., 2016). Tharaldsen et al. (2016) conducted in-depth interviews with upper secondary school students in South Norway and reported that adolescents were concerned about anonymity because they do not want their close family and friends to know that they have mental health problems.

Other barriers have been studied using the quantitative method. Nine quantitative studies reported the barriers to help-seeking and utilisation of mental health services (Jorm et al., 2007). Of these, three were conducted in school settings (Aida et al., 2010; Fukuda, Penso, do Amparo, de Almeida, & Morais, 2016; Rosenthal & Wilson, 2016). More recently, a study conducted among school-going adolescents in public and private schools in Brazil reported that fear of stigmatisation, denial of mental health problems and structural barriers were the main barriers to seeking mental health services (Fukuda et al., 2016). Similarly, a study among adolescents aged 18 to 19 years in the US found that stigma accounted for more than half of the participants' reasons for not utilizing service. Besides, 65% adolescents did not understand the function of mental health professionals. Some of them believed that seeing mental health professionals was not helpful (Rosenthal & Wilson, 2016).

Specific tools can be used to measure help-seeking barriers (Aida et al., 2010; Pepin, Segal, & Coolidge, 2009; Salaheddin & Mason, 2016; Vanheusden et al., 2008). For

instance, Salaheddin & Mason (2016) reported on barriers based on the Barriers to Access to Care Evaluation scale (BACE) and classified the barriers as stigma-related, attitudinal and instrumental. Also, the barriers to access and utilisation of healthcare services are typically conceptualised as intrinsic and extrinsic factors. The intrinsic barriers are personal emotion, behaviour and cognition, shame, fear, and motivation. Meanwhile, extrinsic barriers relate to social factors such as demographics, availability, accessibility and acceptability of the services (Pepin et al., 2009). A study in the Netherland assessed 18 reasons for not seeking professional help using the barriers-to-care checklist. These 18 items were divided into attitudinal barriers and practical barriers (Vanheusden et al., 2008). Despite the different concepts for explaining the barriers, the studied barriers in each study are more or less the same. It can be used to conceptualise the barriers found in this study.

Similar barriers are also found in Malaysian studies. Aida et al. (2010), examined the barriers to utilising primary healthcare as a source of help for mental health problems in a cross-sectional survey conducted among adolescents aged 15 to 17 years in Hulu Langat, Selangor. The study found that 97% of the students were not aware of the available mental health services in the primary healthcare clinic. Meanwhile, more than 50% blamed themselves for mental health problems and thought that the problems were not severe enough to compel them to seek help. Regarding the service, 43.2% of the students were worried about confidentiality issues, while 15% of did not have confidence in the services provided. In this study, being unaware of primary care as a source of help for mental health could be due to their perception that primary care addresses physical illnesses only (Aida et al., 2010).

Two studies explored adolescents' attitudes toward consulting their GP for mental health problems using a mixed-method approach. First, Corry & Leavey (2017)

conducted a qualitative study using semi-structured focus group interviews among 54 adolescents in Northern Ireland. This study found that the general barrier to help-seeking was a pervasive lack of trust. Second, Low et al. (2016) conducted a mixed-methods study in Malaysia whereby participants were given a self-administered questionnaire with 11 items and open-ended questions. The open-ended questions were used to elicit the participants' view of not seeking professional services for their psychological or mental health problems. The three themes that emerged from the written activity are lack of trust, self-reliance and time and financial constraints.

Regarding the lack of trust, participants were concerned about sharing their personal feelings and experience with a stranger. For that reason, they preferred to share their problems with someone familiar and close to them such as friends, family and teachers while time constraint was related to their schedule that prevents them from seeing professionals (Low et al., 2016).

Although many studies on barriers have been conducted in many parts of the world, especially in Western countries, the barriers could differ across populations, socioeconomic status, cultures, health belief and health care systems. For example, cultural norms or values might influence attitudes toward professional help-seeking. In the Asian culture, an individual is generally viewed as being fundamentally interconnected in a larger social network that acts as a support system. Reliance on informal social network and cultural stigma can be one of the barriers to seeking professional help. On the contrary, in the Western culture, each individual is distinguished as autonomous and distinct from others (Mojaverian, Hashimoto, & Kim, 2013). For these reasons, our findings may not be generalisable other populations in western countries. However, it can help and guide the researcher to develop further studies and address the gaps in existing knowledge.

Table 2.5: Evidence of Literature on Barriers to Help-seeking for Mental Health Problems: Quantitative Studies

Author	Objective	Study design	Participants and setting	Outcomes	Main findings
1-Jorm, Wright & Morgan (2007)	To determine the intentions to seek help for mental health problems	Cross-sectional	N= 3,746 Adolescents and young adults aged 12 to 25 years old in the general population Country: Australia	Help-seeking intentions and perceived barriers	<u>Barriers</u> Range from 5% to 23% 1- Too embarrassed or shy 2- Professional might feel negatively about you 3- Negative feelings or self-perceptions 4- Denial or pride
2- Vanheusden et al. (2008)	To examine the barriers-to-care	Cross-sectional	N= 2,268 Young adults aged 19 to 30 years old General population Country: Netherlands	Mental health services utilisation	<u>Barriers-to-care</u> With psychopathology 1- Perceived help-seeking negatively • Believe treatment would not help • Help-seeking was weak 2- Denial 3- Perceived problems as self-limiting
3- Aida et al., (2010)	Barriers to primary health care	Cross-sectional	N=175 Adolescents aged 15-17 years old Secondary schools Country: Malaysia	Help-seeking behaviour	<u>Barriers</u> Range from 97 to 16% 1- Do not know about the services 2- Perceptions of problem not serious 3- Their own mistake 4- Worry over friend's perception 5- Worry over family's perception 6- Worry that people will know 7- Worry over teacher's perception 8- Family objection 9- Time consuming

Table 2.5; continued

Author	Objective	Study design	Participants and setting	Outcomes	Main findings
4- Yap, Reavley & Jorm (2013)	To study help-seeking intentions and its barriers	Cross-sectional	N=3,021 Adolescents and young adults aged 15 to 25 years General population Country: Australia	Help-seeking intentions and barriers	<u>Barriers</u> 1- Too embarrassed 37% 2- Concern about helper might feel negatively about them 3- Structural barriers 4- Negative emotions or self-perceptions 5- Helper might not able to help 6- Concern about what others think
5- Fukuda et al. (2016)	To study perceptions of professional help and barriers to seeking mental health services	Cross-sectional	N=1,030 Adolescents and young adults aged 8 to 21 years old. Public and private schools Country: Brazil	Health services use Barriers	<u>Barriers</u> 1- Fear of stigmatization was higher mean for participants who had received treatment 2- Mental problem denial 3- Structural barriers was higher among participants who had received treatment
6- Rosenthal & Wilson (2016)	To determine the use of counselling	Cross-sectional	N=847 College students aged 18 to 19 years old Country: US	Use of counselling	-65% did not understand what mental health professional do - 58% stigma to use mental health services -13% seeing mental health professional would not helpful

Table 2.5; continued

Author	Objective	Study design	Participants and setting	Outcomes	Main findings
7- Salaheddin & Mason (2016)	To understand why young adults choose not to seek any support for an emotional and mental health difficulty	Cross sectional	N=203 Young adults aged 18 to 25 years old General population Country: UK	Barriers	1- Stigma: feeling embarrassed or ashamed 2- Attitudinal barriers: dislikes talking about feelings, emotions or thoughts 3- Instrumental barriers: unsure where to get professional help and unaffordable Self-reported barriers 1- Stigmatising belief 2- Perceiving problems as not serious enough 3- Reliance on self 4- Fear negative outcome 5- Difficulty identifying or expressing concerns

Table 2.6: Evidence of Literature on Barriers to Help-seeking for Mental Health Problems: Qualitative Studies

Author, year	Objectives	Study design	Participants and setting	Findings
1- Aisbett et al. (2007)	Understanding of the barriers to mental health service utilisation	Qualitative: phenomenological approach IDI	N= 3 Adolescents aged 15 to 17 years old Rural areas Country: Australia	1- Accessibility issues • Transportation difficulties • Perceived lack of qualified professional • Waiting list 2- Stigma • Social stigma • Self-stigma 3- Characteristics of rural communities • Exclusionary practices or ostracism • Social visibility • Gossip networks
2- Boyd et al (2007)	Explore experiences of accessing help for mental health problems in the context of rural communities	Qualitative: phenomenological approach IDI	N= 6 First year undergraduate students aged 17 to 21 years old Rural area University Country: Australia	1- Lack of anonymity due to living at small communities 2- Self-reliance 3- Perceived stigma 4- GP is not appropriate sources of mental health professional 5- Do not know the availability of services
3- Freedenthal & Stiffman (2007)	To understand the reasons why adolescents did not seek help	Qualitative Open-ended Survey	N=101 Adolescents (American Indians) aged 15 to 21 years old with suicidal thought or attempted General population Country: US	1- Did not perceived need for help 2- Stigma or embarrassment 3- Has support 4- Self-reliance 5- Felt hopeless or alone 6- Fear of consequences 7- Concern about costs 8- No service available

Table 2.6; continued

Author, year	Objectives	Study design	Participants and setting	Findings
4- Molock et al. (2007)	To explore help-seeking behaviour in the problem recognition and decision to seek help	Qualitative FGD	N=42 Adolescents (African American) aged 12 to 18 years old with suicidal attempted Church Country: US	1- Difficult in deciding who the best helpers 2- Mental health professionals would make intervention too formal or "official" 3- Uncertain about formal relationship with therapist 4- Concern about confidentiality and being judged
5- Price& Dalgleish (2013)	To explore help-seeking behaviour and barriers to using formal support	Qualitative FGD	N=60 Adolescents (Aboriginal and/or Torres Strait Islander) aged 10 to 24 years old Rural areas Country: Australia	1- Lack of understanding about the services 2- Unaware about Helpline 3- Confidentiality 4- Fears of being punished by their parents or carers 5- Fear shaming themselves and family 6- Counsellor did not understanding their issues
6- Martínez-Hernáez et al. (2014)	To explore reasons for non-professional help-seeking	Qualitative: Grounded theory & ethnographic approach IDI and FGD	N=105 Adolescents and young adults aged 17 to 21 years old General population Country: Spain	Reasons for avoiding professional 1- Normalization of treatment 2- Stigma 3- Reliance on self 4- No need for professional help 5- Fear receiving a diagnosis 6- Prefer rely on social network 7- Shame 8- Denial 9- Lack of faith in treatment 10- Lack of accessibility 11- Impersonal protocol-driven treatment approach 12- No knowledge of available services

Table 2.6; continue

Author, year	Objectives	Study design	Participants and setting	Findings
7- Seamark & Gabriel (2016)	Explore barriers to help seeking	Qualitative: phenomenological approach	N=6 College students aged 17 to 18 years old College Country: UK	1- Gender role • Females: level of acceptance and expectation and desensitisation • Male: seeking help is viewing as weak 2- Awareness and perception of help • Unaware or vague • Negative experience with the services 3- Social and cultural influence 4- Fear of stigma and rejection
8- Tharaldsen et al. (2016)	To investigate factors that cause adolescents to avoid help-seeking for mental health problems	Qualitative IDI	N=8 Vocational students aged 17 to 18 years old Upper secondary schools Country: South Norway	1- Concern about their anonymity 2- Concern about other people know their problems 3- Fear or embarrassment and uncomfortable 4- Taboo and prejudice 5- Mental health problems called as lame, difficult and crazy 6- Decrease one strength

Table 2.6; continued

Author, year	Objectives	Study design	Participants and setting	Findings
9- Lynch, Long & Moorhead (2018)	To explore barriers to professional help-seeking for mental health problems	Qualitative IDI FGD	N=17 Young adults aged 18 to 24 years Local youth services Country: Ireland	1- Acceptance from peers: • Labelling • Negative reactions • Perceived weakness • Potential rejection from group 2- Personal challenges • Communication of their emotion • Symptoms recognition • Personal losses from asking help • Ineffective coping mechanism 3- Cultural and environmental influences • Religious influences • Rural life 4- Perspective around seeking professional help • Not knowing how or where to meet professional help • Negative opinion about mental health professionals 5- Traditional masculine idea

Table 2.7: Evidence of Barriers to Help-seeking for Mental Health Problems: Mixed-methods Studies

Author, year	Objectives	Study design	Participants and setting	Findings
1- Corry& Leavey (2017)	To explore adolescents' attitudes to consulting GP about psychological problems.	Mixed-methods: Cross-sectional and focus group	N=54 Adolescents aged between 13 to 16 years old at schools Country: Ireland	<u>Barriers to help-seeking from GPs</u> Main barrier was pervasive lack of trust due to; 1- Limited prior contact 2- Anxiety about seeking help from GPs 3- Confidentiality and parental involvement 4- Professional competence 5- Negative perceptions of professionals
2-Low, Lim & Tan (2016)	To explore barriers of help-seeking behaviours	Mixed-methods: Cross-sectional open-ended survey	N=527 Young adults aged 18 to 25years at private universities Country: Malaysia	<u>Quantitative results</u> 1- Reliance on self 2- Fear of changing one behaviour 3- Time constraint 4- Finance problem 5- Stigmatisation 6- Lack of trust <u>Qualitative results:</u> 1- Self-reliance 2- Lack of trust 3- Time and financial constraints

Table 2.7; continued

Author, year	Objectives	Study design	Participants and setting	Findings
3- Leavey et al., (2011)	Help-seeking preferences and attitudes	Mixed-method: Cross sectional and focus groups	Adolescents aged 14-15 years old at schools Country: UK	<u>Qualitative results</u> Barriers to seek help from GPs 1- Knowledge and perceptions of primary care: • GP role in physical health 2- Information • Not aware of how GP can help 3- Autonomy • Unsure about right to consult GP 4-Trust • Privacy and confidentiality 5-Acess • Uncertain about legitimacy in making an appointment • Anxious that parents would find out 6- Relationship-building
4-Boyd et al., (2011)	To investigate help-seeking preference and intention	Cross-sectional open-ended survey	N=201 Adolescents aged 11 to 18 years at rural schools without mental health problem Country: Australia	<u>Reasons for not seeking professional help</u> 1- 30.6% not being comfortable discussing mental health problem with a stranger 2- 15.8% feeling closer to informal sources of support 3- 11.9% fear of embarrassment or social stigma 4- <10% cost/ bad experience with professional services/ inability to trust professional/ lack of services/ long waiting list/ not knowing where to find help/ not trusting the competence of professional

2.7 Reviews on Facilitating Factors and Barriers to Help-seeking for Mental Health Problems

From the literature review, there are ten systematic reviews that address help-seeking behaviour for mental health problems. All of them explored the factors influencing help-seeking and barriers to it for various types of mental health problems. Most were from high-income and western countries, namely the UK, US, Australia, Canada and France (Doblyte & Jimenez-Mejias, 2017; Eisenberg et al., 2012; Gulliver et al., 2010; Hom et al., 2015; Hunt & Eisenberg, 2010; Jackson et al., 2007; Li et al., 2014; Michelmore & Hindley, 2012; Rowe et al., 2014; Schnyder et al., 2017). Only three reviews represented the Asian population; Japan, Singapore and China (Gulliver et al., 2010; Rowe et al., 2014; Schnyder et al., 2017). Out of ten, four reviews included adolescents or young people in the general population (Gulliver et al., 2010; Michelmore & Hindley, 2012), college/university (Eisenberg et al., 2012) and school (Rowe et al., 2014). The remaining reviews included adults aged 18 years and over as study subjects. Three reviews included both quantitative and qualitative studies (Gulliver et al., 2010; Hom et al., 2015; Rowe et al., 2014). One review synthesised solely qualitative studies using the meta-ethnographic method (Doblyte & Jimenez-Mejias, 2017), while the rest reviewed only quantitative studies (Eisenberg et al., 2012; Hunt & Eisenberg, 2010; Jackson et al., 2007; Li et al., 2014; Michelmore & Hindley, 2012; Schnyder et al., 2017). These different reviews provide a comprehensive overview and information on help-seeking behaviour, its determinants and barriers. It was commonly reported that positive attitudes toward help-seeking, mental health literacy, social support (Eisenberg et al., 2012; Gulliver et al., 2010; Hom et al., 2015; Jackson et al., 2007; Li et al., 2014; Michelmore & Hindley, 2012), awareness of resources (Gulliver et al., 2010), and gender (Eisenberg et al., 2012) were factors that facilitated use of mental health services or help-seeking. On the other hand, barriers were stigma, negative attitudes, lack of knowledge and awareness of mental

health problems and services, lack of confidentiality, lack of perceived need, structural barriers such as time, cost, transport, and self-reliance (Doblyte & Jimenez-Mejias, 2017; Eisenberg et al., 2012; Gulliver et al., 2010; Hom et al., 2015; Hunt & Eisenberg, 2010; Jackson et al., 2007; Michelmore & Hindley, 2012; Rowe et al., 2014; Schnyder et al., 2017). The summary of these results is presented in an evidence table in Table 2.8.

Table 2.8: Reviews of Adolescents' Help Seeking for Mental Health Problems

Author	Objective	Study design	Participants and setting	Main findings
1) Doblyte and Jimenez-Mejias (2017)	To explore the help-seeking behaviour To understand factors that influence help-seeking behaviour	Meta synthesis (Meta-ethnography) 20 articles	General population with depressive symptoms Aged 16 to 76 years Country: Europe and North American	<u>4 interrelated themes</u> 1- Help-seeking as threat to identity 2- Social networks as a conflict or support 3- Alternative coping as main barriers a- maladaptive coping b- Normalisation c- religion as a coping resource d- self-reliance 4- Barriers: a- Attitudinal and cognitive barriers • Stigma • Negative attitudes toward treatment • Fear of side effect • Belief ineffectiveness of treatment in general • Inappropriate of mental problem in primary care • Depression is not real b- Relational barriers • Perceived lack of knowledge, skills and expertise of GP • Lack of intimacy and empathy • Difficult to communicate • Fear of negative reactions from GPs c- Culturally specific barriers • Cultural inappropriateness of interventions • Lack of bilingual of healthcare providers • Lack of holistic approach d- Gender-specific treatment • Men fears talking about emotions/masculinity • Lack of confidentiality

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
2) Schnyder et al. (2017)	To estimate four stigma types on active help-seeking	Systematic review and meta-analysis 27 articles	General population (non-clinical samples) Country: Western and one Singapore	<u>Less likely to seek help</u> 1- Negative help attitudes toward mental health 2- Higher personal stigma 3- Higher self-stigma <u>No association with help-seeking</u> 1- Public stigma 2- Unspecific general stigma
3) Hom et al (2015)	To examine rates of help-seeking and barriers and facilitators to service utilisation among those elevated risk for suicide.	Review 146 articles	Adolescents aged 13-18 and adults aged 18 and above with elevated risk of suicide Country: US, Canada, UK and Australia	Rates of help-seeking and service utilisation 1-Overall: 29.5% 2- Adolescents and young adults: below 50% (across all studies) <u>Barriers to help-seeking</u> 1- Severe suicidal ideation and maladaptive coping 2-Lack of perceived need 3-Preference self-management 4-Structural factors 5-Belief about treatment effectiveness 6- Fear of hospitalisation and mistrust of providers 7- Stigma 8- Unique sociodemographic factors: sexually attracted to same sex, gender, ethnic minority. <u>Facilitators</u> 1- Positive Attitudes towards care 2- Mental health literacy 3- Family and friend support 4- Prior service utilisation

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
4) Rowe et al. (2014)	To address the sources of support adolescents who self-harm To determine the barriers and facilitators to help-seeking for adolescents who self-harm	Systematic review 20 articles	Adolescents aged 11 to 19 years at school setting with self-harm Country: Europe, Australia and Japan	<u>Sources of support</u> 1-Informal sources such as friend and family were the most common 2-Less common sources: psychologist, psychiatrist, school nurses, teachers, social workers and general practitioners 3-13% hospital treatment 4-38% internet <u>Influences or facilitators</u> 1-Gender: females were more likely to received help from family and friend, while males were likely to present in the hospital 2-Young age 3-Other mental health problems 4-Parent and teachers helping to resolves the problems 5-Reducing stigma 6-Improving family context (qualitative study) 7-Assurance of confidentiality 8-Being treated respectfully 9-Having trustworthy person to talk 10-Option of talking to someone of similar age and background <u>Barriers</u> **Interpersonal barriers** 1-Belief other would not understand their self-harming behaviour 2-Fear of breach of confidentiality 3-Uncertain over parent and teacher could help 4-Fear that others would react negatively 5-Fear of stigmatised **Intrapsychic barriers** 1-Presence of depression, anxiety and suicidal ideation 2- Minimisation of self-harm 3- Belief that they could cope on one's own

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
5)Li, Dorstyn & Denson (2014)	To investigate psychosocial associated with help-seeking intention	Systematic review and meta-analysis 18 articles	University or college students aged 18 years and above Country: US	Mental health services utilisation was 4.8% <u>Factors associated with help-seeking intentions</u> **Positively** 1- Attitudes toward seeking professional psychological help 2- Anticipated utility **Negatively** 1- Adherence to Asian values 2- Public stigma 3- Anticipated risk
6)Eisenberg, Hunt& Speer (2012)	To review help-seeking behaviour for mental health problems in college population	Review	College students aged 19 to 26 years Country: Australia	<u>Prevalence of treatment use and help-seeking</u> - Only 18% received mental health services in past year -Informal help seeking: 67% friends and 52% family, social media was 25% -Healthy Minds samples: 36% with apparently with mental health problems <u>Barriers and facilitators of help-seeking</u> 1- Stigma 2- Perceived need 3- Social context-close friend or family members used the service 4- Cultural competence: not culturally sensitive 5- Negative attitudes and belief about treatment

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
7) Michelmore & Hindley (2012)	To review the studies that reported on the proportion, sources of help and factors influencing help-seeking	Systematic review 23 articles	Young people aged 16 to 26 years with suicidal thoughts and self-harm Country: Europe.US, France, New Zealand, Canada, Australia	<u>Proportion help-seeking</u> -Rate of help-seeking was below 60% -Higher rate of informal help-seeking range from 40-68% <u>Sources of help</u> 1- Peers 2- Family 3- GPs 4- Emergency room <u>Factors affecting help-seeking</u> 1- Geographical region 2- Service provision and public health promotion 3- Gender: woman more likely to informal and man for ER 4- Age: older 5- Ethnicity: minority 6- Underlying mental illness 7- Alcohol and illicit drug use 8- Lower self-esteem 9- Family factors: positive relationship, family history of self-harm, separated or divorced parents 10-Negative life events <u>Barriers</u> 1- Self-reliance 2- Perceptions problems are nor serious 3- lack of services time or resources

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
8) Hunt & Eisenberg (2010)	To review mental health problem and help-seeking among college students	Narrative review On national studies and large multi-campus studies	College population Country: US	-Less than half students screened for depression and anxiety have received mental health services. <u>Risk factors of mental health problems</u> • Gender; male higher risk for suicide and female students are more likely to screen for depression and anxiety • Lower socioeconomic background • Low social support • Victimization by sexual violence <u>Barriers to help-seeking</u> 1- Lack of perceived need for help 2- Unaware of services or insurance coverage 3- Scepticisms about treatment effectiveness 4- Stigmatising attitudes 5- Lack of time 6- Privacy concern 7- Lack of emotional openness 8- Financial constraint

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
9) Gulliver et al. (2010)	To summarise reported barriers and facilitators of help-seeking in young people using both quantitative and qualitative studies	Systematic review 22 articles	Adolescents aged 12 to 17 and young adults 18 to 25 Country: Australia, US, UK, and China	<u>Key barriers themes</u>: 1- Public, perceived and self-stigmatising attitudes to mental illness 2- Confidentiality and trust 3- Difficulty identifying the symptoms of mental illness 4- Concern about the characteristics of the provider 5- Reliance on self 6- Knowledge about mental health services 7- Fear or stress about the act of help-seeking or source of help itself 8- Lack of accessibility: time, transport, cost 9- Difficulty or unwillingness to express emotion 10- Do not want to burden someone 11- Prefer other sources of help (family/friend) 12- Worry about effect on career 13- Not recognising the need for help or not having the skills to cope <u>Key facilitators themes</u> 1- Positive past experience with help-seeking 2- Social support or encouragement from others 3- Confidentiality and trust in provider 4- Positive relationship with service staff 5- Education and awareness 6- Perceiving the problems as serious 7- Ease expressing emotion and openness 8- Positive attitudes towards seeking help

Table 2.8; continued

Author	Objective	Study design	Participants and setting	Main findings
10) Jackson et al. (2007)	To determine which sociodemographic, illness-related and psychological/attitudinal factors impact on person's decision to seek help and attitudes to help-seeking in rural contexts.	Systematic Review 20 articles	Rural-specific population aged 15 and above Country: Australia	<u>Predictor to attitudes to, actual and help-seeking</u> 1- Gender: female 2- Living alone 3- Marital status: widowed, divorces and separated 4- Having mental disorder 5- Underlying physical condition or comorbid 6- Higher education 7- Social support 8- Higher income 9- Positive attitudes toward seeking-help <u>Barriers</u> 1- Felt treatment inadequate 2- Waiting time was too long 3- Can handle by themselves 4- Problems would get better by itself 5- Situational factors: cost, insurance, time, location

2.8 Help-Seeking Models

There is no single theory of help-seeking behaviour for mental health problems. Instead, several complementary theoretical frameworks emphasise different aspects of help-seeking behaviour. According to a systematic review by Rickwood and Thomas (2012), 81% of help-seeking studies did not apply a conceptual framework. The most common theoretical frameworks used for adolescents' help-seeking are the theory of planned behavioural/reasoned action (TRA/TPB) (Fishbein & Ajzen, 2011), service utilisation developed by Aday and Andersen (Aday & Andersen, 1974) with 4% and 3% respectively. Every model explains different approaches that can influence an adolescents' help-seeking and service use (Rickwood & Thomas, 2012).

i Andersen's Behavioural Model of Health Service Utilisation

This model was initially developed in the late 1960s to understand families' widely differing use of health services. It suggests that the healthcare service use is a function of their predisposition to use service, factors which enable use, and their need for care (Andersen, 1968; Andersen, 1995). The model evolved throughout the years from focusing on the family as a unit of analysis to an individual as a unit of analysis. It also underwent revisions to include influential elements such as health care system, external environment, and customer satisfaction (Andersen, 1968; Andersen & Newman, 1973; Andersen, 1995). According to Andersen's Behavioural Model, an individual's help-seeking and utilisation of health services are influenced by three main characteristics; predisposing, enabling, and need factors. Predisposing factors include demographic characteristics of age, sex, social factors (e.g. ethnicity, social relation), and belief (e.g. attitudes and knowledge). These factors existed before the onset of illness and relate to an individual's propensity to seek help. However, these factors might not be directly responsible for service utilisation. Enabling factors are also known as inhibiting factors

and typically focus on the factors related to accessibility and affordability such as financing, services availability and social network. Lastly, need factors refer to a person's perceived need for health services which is how people view and experience their general health, and evaluate the need for professional assessment of their health (Andersen, 1968; Andersen & Newman, 1973; Andersen, 1995).

A systematic review conducted by Babitsch et al. (2012) reported that the Behavioural Model (BM) had been used in many studies in the UK and US. Most of the studies used the 1995 version of the model (Figure 2.3) which is the fourth version of the model initially developed in the 1960s (Babitsch et al., 2012) This behaviour model was adapted into this study focusing on the population characteristics affecting adolescents' help-seeking and access to services (Figure 2.4).

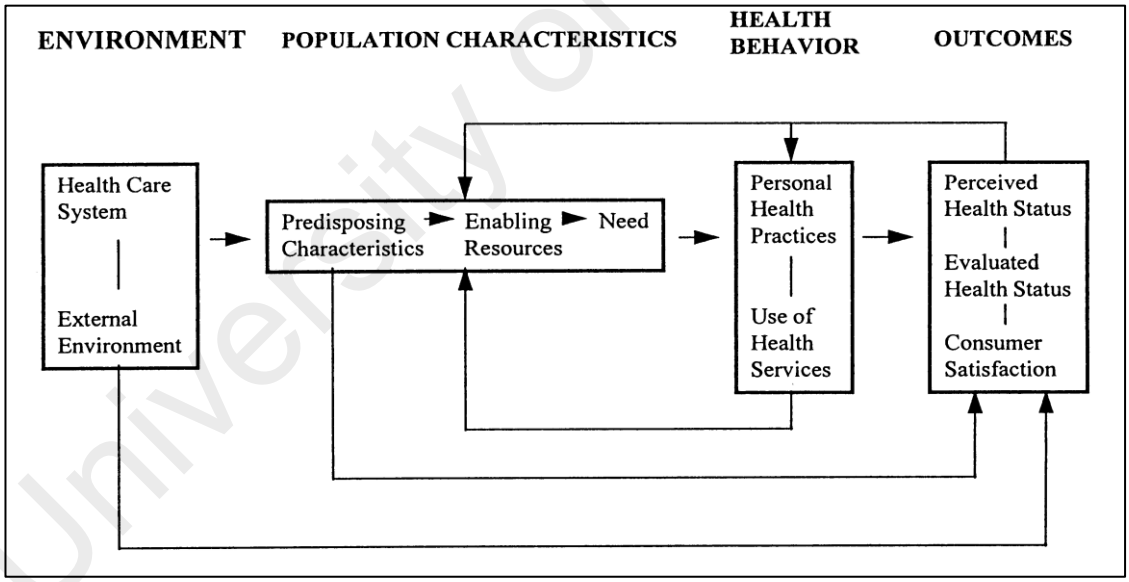

Figure 2.3: Andersen's Behavioural Model of Health Service Utilisation Adapted from Revisiting the Behavioural Model

Source: Andersen, R. M. (1995). Revisiting the behavioural model and access to medical care: does it matter? *Journal of Health and Social Behaviour*, 1-10.

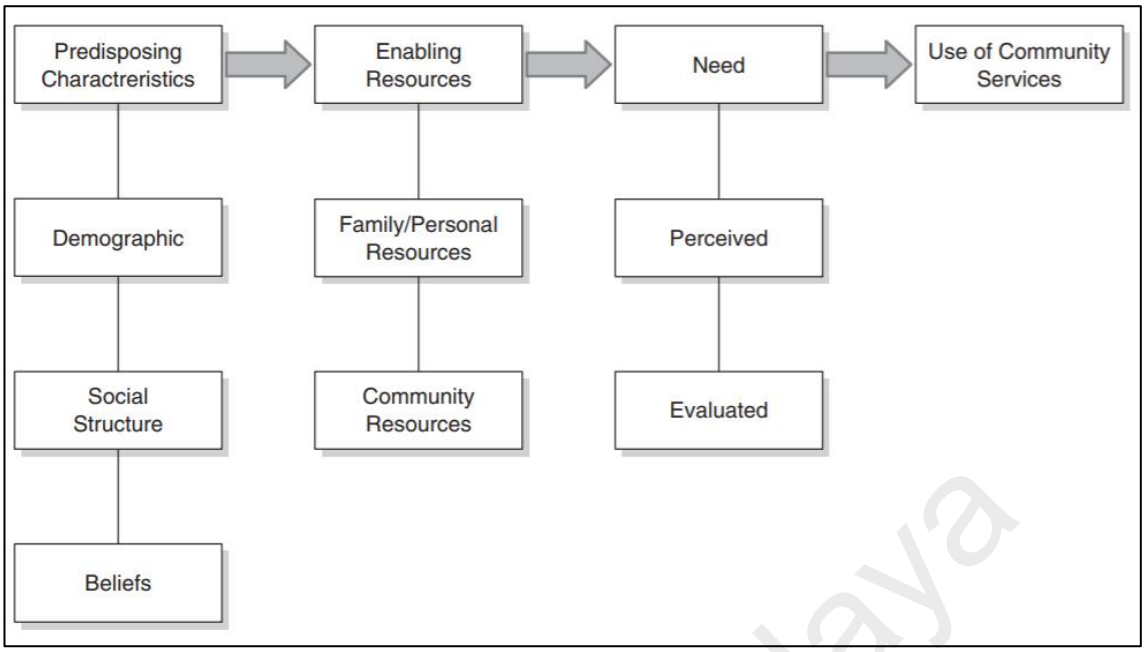

Figure 2.4: Population Characteristics of the Behavioural Model

Source: Andersen, R. M. (1995). Revisiting the behavioural model and access to medical care: does it matter? *Journal of Health and Social Behaviour*, 1-10.

ii Youth Help Seeking and Services Utilisation Model

Srebnik et al. (1996) developed the 'Youth help-seeking and service utilisation model' to identify the factors influencing child and adolescent mental health help-seeking (Srebnik et al., 1996). This model was drawn upon a few models namely Anderson and Newman's (1973), Aday et al. (1993), and Goldsmith (1998) (Aday & Andersen, 1974; R. Andersen & Newman, 1973; Goldsmith, Jackson, & Hough, 1988). The model suggests that the help-seeking pathway consists of three stages: (1) problem recognition, (2) decision to seek help, and (3) support network and utilisation pattern. Each help-seeking pathway is influenced by the illness profile, predisposing factors, and factors that facilitate or pose a barrier to service utilisation. Problem recognition is defined as the youth's initial identification of the mental health problems. It is directly influenced by the clinical assessment of the illness such as symptoms, and diagnosis and subjective level of need which is perceived need for help. The ability to recognise the problem is also

influenced by family characteristics such as family structure (i.e. family size, parental education) and relational (i.e. family conflict, abuse/neglect). In the second stage, the decision to seek help is directly influenced by the predisposing factors and barriers/facilitators. Predisposing factors include sociodemographic characteristics such as age, gender and ethnicity. While barriers and facilitators include social and environmental factors such as social network, economic situation, service availability and healthcare policy. In the third stage, support network and service utilisation is directly influenced by the predisposing factors, barriers and facilitating factors (Srebnik et al., 1996). Figure 2.5 shows the model structure. This model has been selected for the factors that contribute to the adolescents' help-seeking and services utilisation.

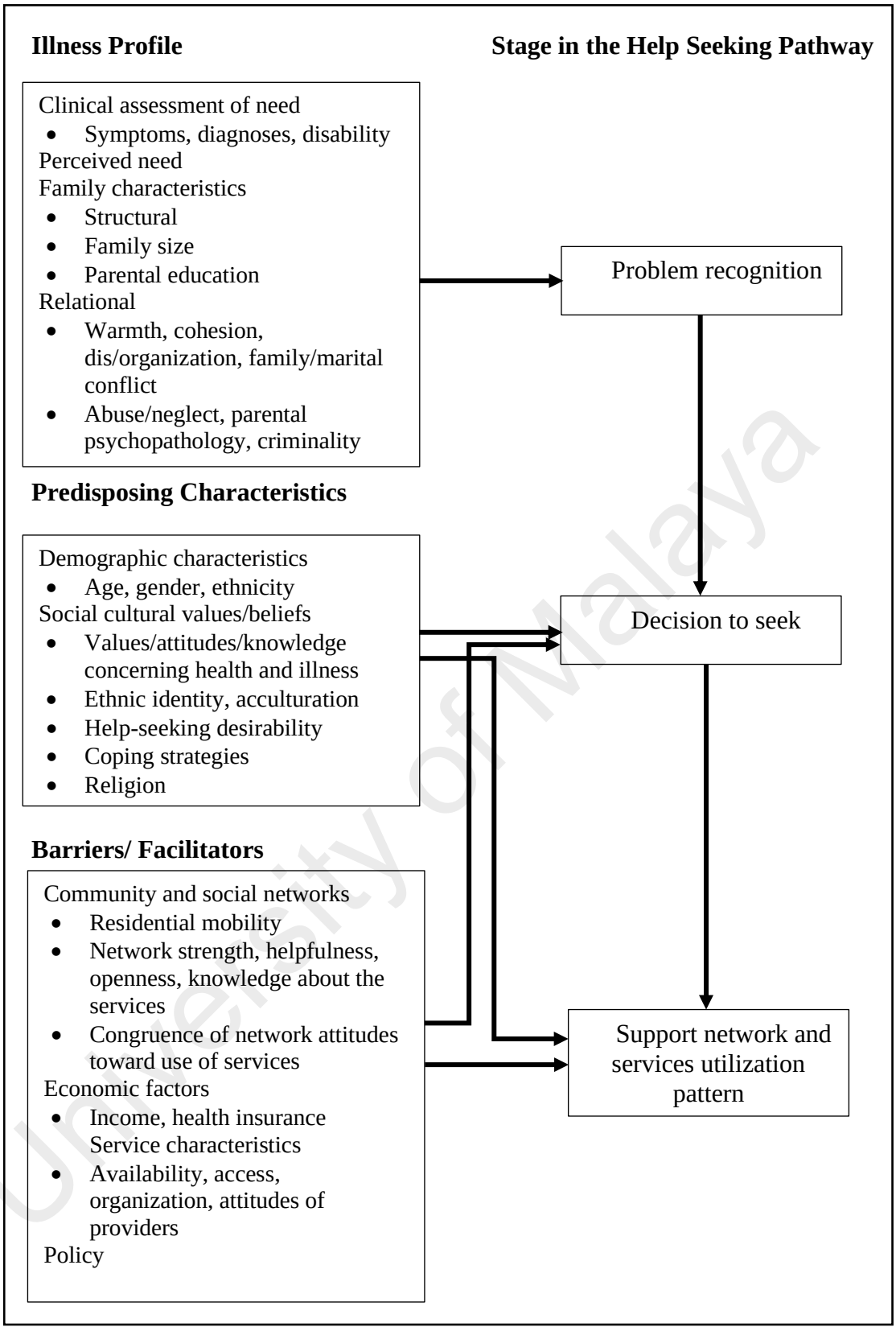

Figure 2.5: Youth Help-seeking and Service Utilisation Model

Source: Srebnik, D., Cauce, A. M., & Baydar, N. (1996). Help-seeking pathways for children and adolescents. *Journal of Emotional and Behavioural Disorders, 4*(4), 210-220.

iii Theory of Planned Behavioural/Reasoned Action

The Theory of Planned Behavioural (TPB) is an extension to the Theory of Reasoned Action (TRA) which retains all the factors from the original model of TRA with the addition of perceived behavioural control (Ajzen, 1991; Ajzen & Fishbein, 2005; Fishbein & Ajzen, 2011). Attitude is determined by the individual benefits about the outcomes of performing a specific behaviour. In the context of a help-seeking study, positive attitudes are present if the individual believes that help-seeking will reduce his/her mental health problems. If the individual believes that help-seeking will not help them, a negative attitude prevails. The subjective norm is determined by the normative belief. It relates to the perception of others in the social network about performing a particular behaviour. In the context of help-seeking, an individual will only seek help if this behaviour is acceptable to the people in their social network. Perceived behavioural control concerns the presence or absence of facilitators or barriers to seeking help. Perceived behavioural control is contributed by the self-efficacy and controllability. For example, in the context of help-seeking, if a person lacks knowledge about mental health and its services, their perceived behavioural control will be low and they are less likely to seek help for mental health problems (Ajzen, 1991; Ajzen & Fishbein, 2005; Fishbein & Ajzen, 2011).

This model was designed to focus on the attitudes/belief and perception related to help-seeking (Figure 2.6). TPB provides a detailed explanation of the health belief and perceived need in Andersen's model. Azjen and Fishbein (1970) acknowledged the complexity of the attitudinal and behavioural relationship. Attitudes are believed as being only one among several other determinants of help-seeking behaviour (Ajzen & Fishbein, 1973). Andersen's model incorporates the individual attitudes and belief as well as an

array of other societal, environmental and individual related factors associated with a person's help-seeking and access to services.

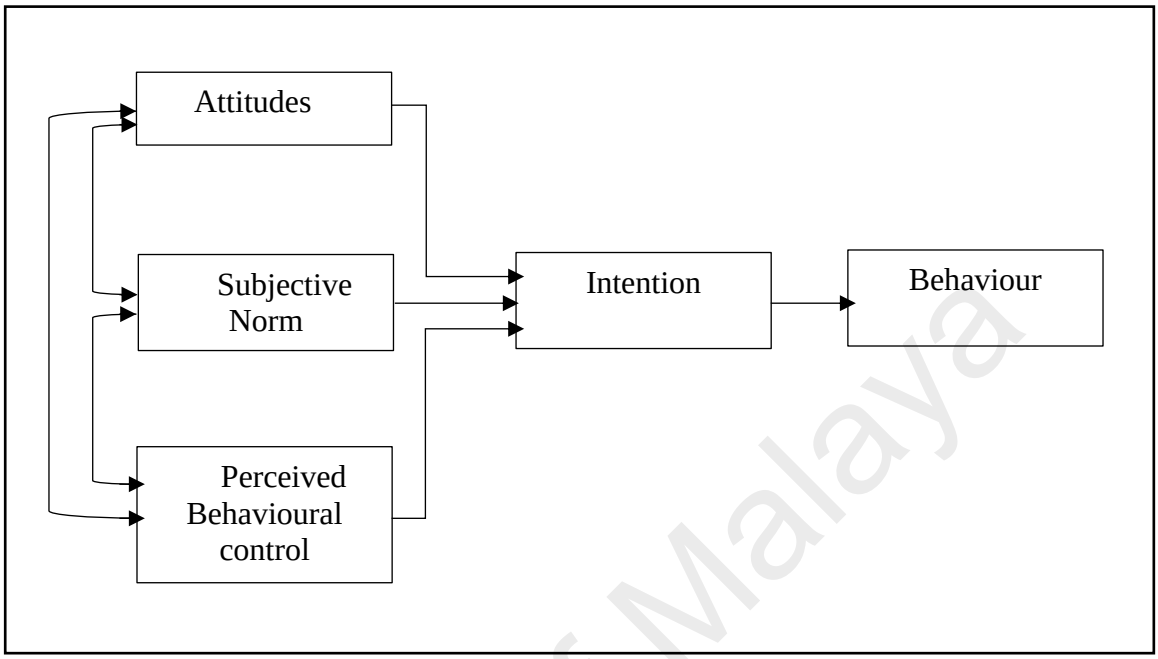

Figure 2.6: Theory of Planned Behaviour

Source: Ajzen, I. (1991). The theory of planned behaviour. *Organisational behaviour and human decision processes, 50*(2), 179-211.

2.9 Conceptual Framework

Three models in the previous section attempted to identify and understand the factors that affect help-seeking behaviour. Each model provides a unique conceptualisation of help-seeking process. Theory of Planned Behaviour (TPB) helps to explain the health belief. It was designed as a general model for predicting behaviour and not specifically designed to predict health related behaviour. It may not capture an important factor specific to health-related behaviour (Ajzen & Fishbein, 1973). Andersen's Behavioural Model of Service Utilisation was designed to conceptualise factors that influence help-seeking and utilisation of health services. It highlights the influence of sociodemographic characteristics, illness characteristics and social network on the individual decision (Pescosolido, 1992). This model is also flexible and provides a robust analytical

framework for discussion (Azfredrick, 2016). Health belief has been addressed in Andersen's model under predisposing factors (Andersen, 1968; Andersen, 1995). In addition, Youth Help-seeking and Service Utilisation Model attempts to clarify the help-seeking process. Nevertheless, the study of the entire Youth Help-seeking and Service Utilisation Model is beyond the scope of this study.

Thus, this study's conceptual framework was influenced by Andersen's Behavioural Model of Service Utilisation (Andersen & Newman, 1973; Andersen, 1995) and the Youth Help-seeking and Services Utilisation Model (Srebnik et al., 1996). This study focused on individual determinants that influence the use of service for mental health problems. Thus, Andersen's model was modified to include variables identified from the Andersen's Behavioural Model, Youth Help-seeking Model and empirical findings from the help-seeking and health service research literature. The variables from each component of predisposing, enabling and need factor were selected based on a review done by Babitsch and colleagues (2012). These were the key variables that have been used and reported in many prior studies. For example, gender and income were examined in 12 and 10 studies respectively (Babitsch, Gohl, & von Lengerke, 2012). Figure 2.7 presents an overview of the Andersen's Behavioural Model that highlights the population characteristics. While Figure 2.8 shows the individual determinants of service utilisation derived from the review of the literature and included in this study.

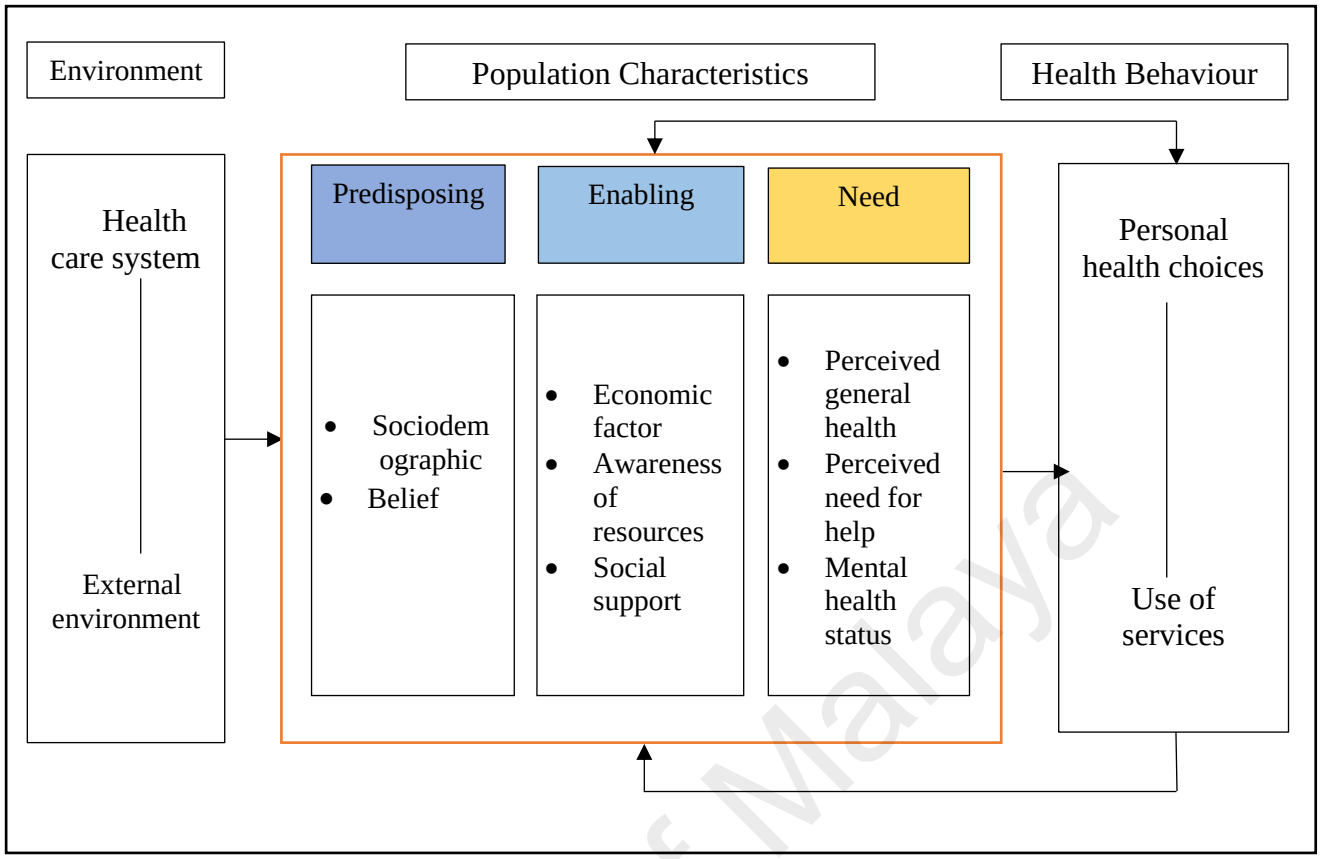

Figure 2.7: An Overview of the Behavioural Model of Health Services Utilisation Adapted from Andersen's Behavioural Model

Source: Andersen, R. M. (1995). Revisiting the behavioural model and access to medical care: does it matter? *Journal of Health and Social Behaviour*, 1-10.

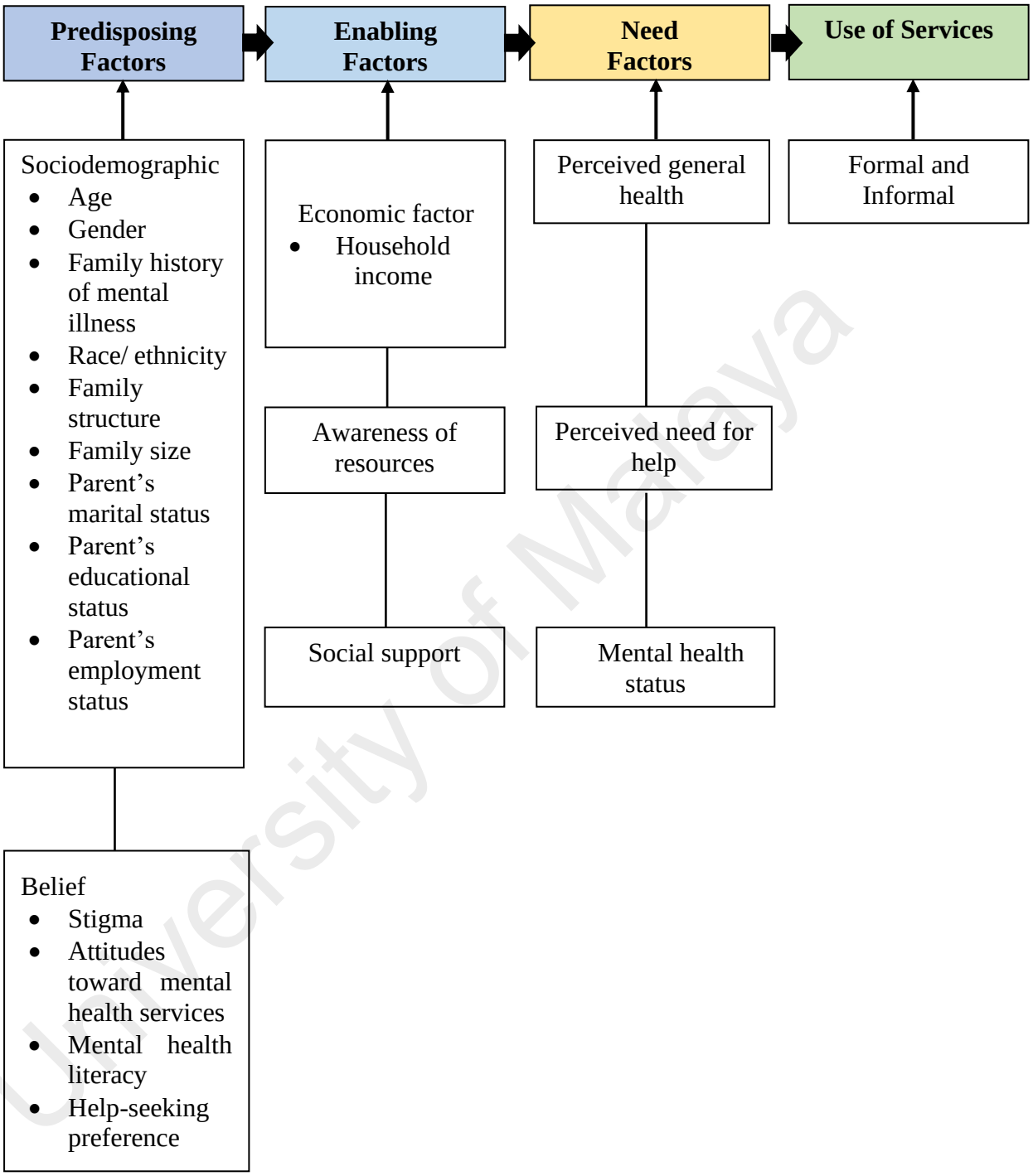

Figure 2.8: A Conceptual Framework Showing the Individual Determinants of Services Utilisation

2.10 Gaps in the Literature

In the literature review, various studies have been analysed to gather information on the factors affecting help-seeking and health service utilisation among the adolescent population. Most of the factors related to health service utilisation are identified from studies conducted among adolescents in college and university. There is limited information concerning late adolescents in the school setting. Some studies focused on adolescents with underlying mental illnesses such as major depression, anxiety disorder and suicide. These studies were conducted predominantly in developed countries. Research evidence on adolescent help-seeking in Malaysia is scarce. A few studies conducted among school-going adolescents focused on the barriers and attitudes toward seeking help. One study was conducted among undergraduate students in private universities using a mixed-method approach. The qualitative component explored the barriers to seeking help using an open-ended survey (Low et al., 2016). Therefore, more studies covering this topic are required, especially among Malaysian adolescents.

2.11 Conclusion of Chapter 2

This chapter reviewed the literature concerning adolescent help-seeking, mental health services and its utilisation from multiple sources. The factors that influence mental health services were reviewed according to Andersen's Behavioural Model of Healthcare Services Utilisation. The chapter also highlighted the barriers to help-seeking and utilisation of mental health services. Overall, there is a disjunct between the prevalence of mental health problems and service utilisation across the globe. The issue is related to the barriers that prevent adolescents from seeking help for their mental health problems.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter provides a detailed explanation of the methods used to collect the data and how the findings were derived. Section 3.2 describes the research design used in this study and its rationale. Furthermore, research procedures are described accordingly for the quantitative study (phase one) and qualitative study (phase two). Section 3.3 describes the methods of the quantitative phase while section 3.4 describes the methods of the qualitative phase. A visual flow for the two-phase design of the explanatory sequential mixed-methods approach is illustrated in Figure 3.1.

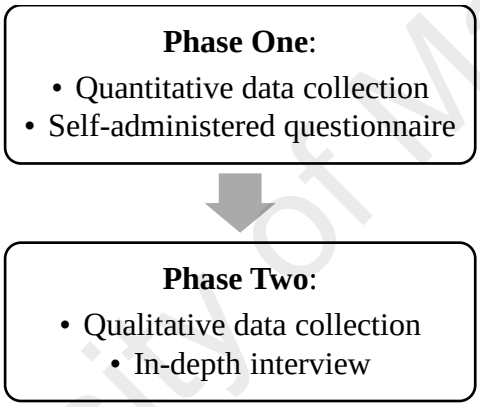

Figure 3.1: An Explanatory Sequential Mixed-Methods Design

3.2 Research Design

Mixed-methods research design is becoming increasingly popular in social sciences. The fundamental principle of mixed-method research is the combination of quantitative and qualitative approaches for a better understanding of the research problems while minimising the limitations of each approach. Both methods complement each other and allow for an in-depth analysis of the studied phenomenon (Creswell, 2012).

The research paradigm of this study is an explanatory sequential mixed-methods design. It was used encompassing both quantitative and qualitative methods. The

qualitative data helps explain or build on the initial quantitative results (Creswell & Clark, 2017). This design is suited to studies in which the researcher uses the qualitative results to explain significant or non-significant or interesting quantitative results (Creswell & Clark, 2017; Tashakkori, Teddlie, & Teddlie, 1998). Additionally, this approach is purposeful in identifying quantitative participant characteristics to guide sampling for the qualitative phase of the study (Creswell 2014). This study tried to answer 'why' respondents with mental health problems and perceived need for help did or did not actually seek help. This mixed-methods design develops a "complex" picture of this social phenomenon. In addition, one type of research may not be enough to address the research problem due to its limitation. Thus, qualitative data is needed to extend, elaborate on, and explain the quantitative data; one form of data informing the other (Ralph, 2013).

In the current study, the explanatory sequential design started with the collection and analysis of the quantitative data followed by the qualitative data that developed from the results of the quantitative phase. Figure 3.2 represents the visual model for Mixed-Methods Sequential Explanatory Design Procedures by Ivankova (2006). This visual model provides a notation system to document and explain the mixed-methods procedure (Creswell & Clark, 2017; Ivankova et al., 2006).

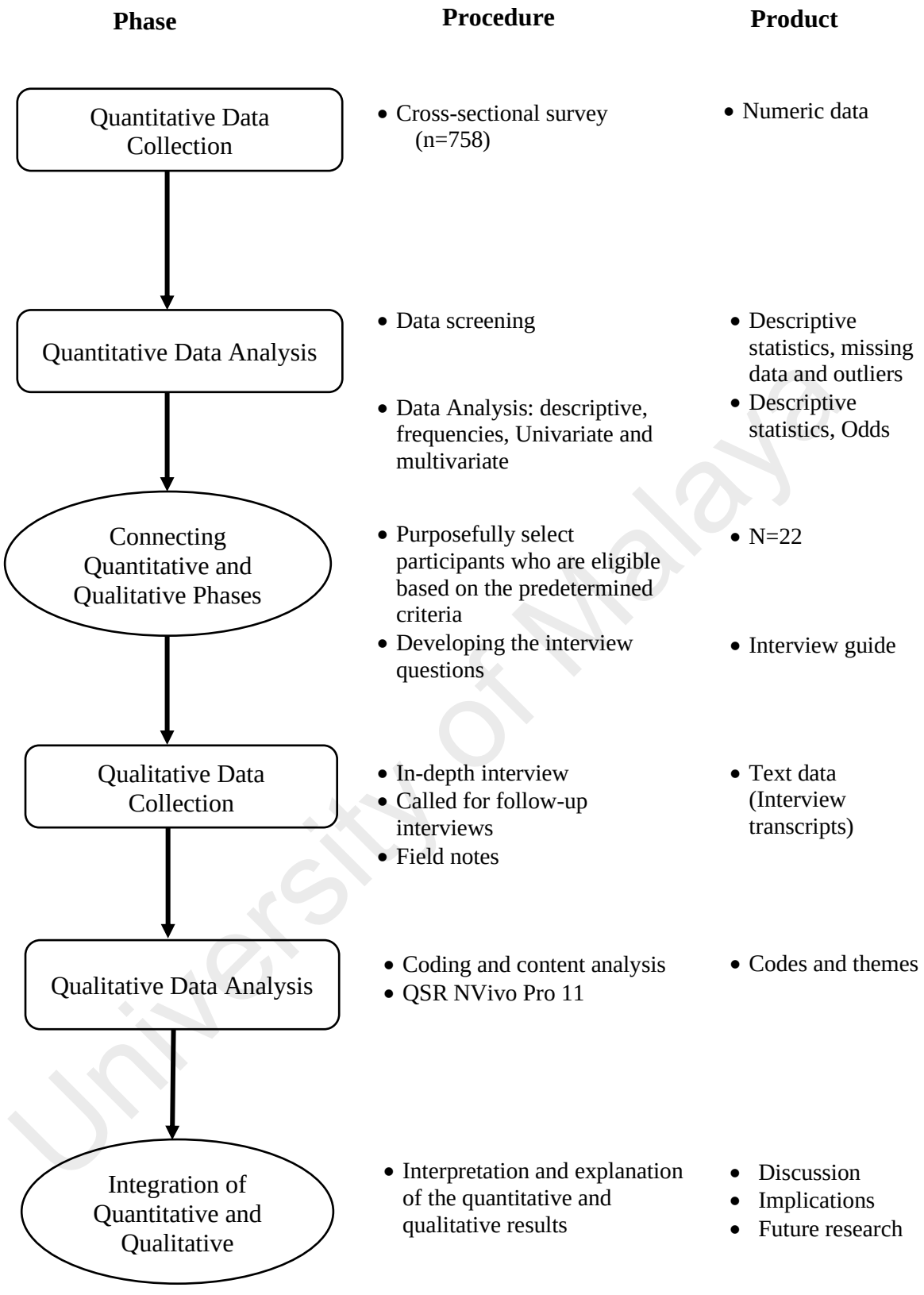

Figure 3.2: Visual Model for Mixed-methods Sequential Explanatory Design Procedures

Source: Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field methods, 18*(1), 3-20.

3.3 Methods of the Quantitative Phase

3.3.1 Study Design

A cross-sectional study was used in the quantitative phase. It was conducted from February 2017 until July 2017. The cross-sectional design was chosen after considering logistic limitations such as time constraints, inadequate human resources and a small budget.

3.3.2 Ethical Consideration

This study was submitted to the University of Malaya Medical Centre (UMMC) Ethics Committee and Ministry of Education of Malaysia (MOE). The ethical clearance and permission to conduct this study were obtained from the UMMC Ethics Committee and MOE respectively. This study was also registered with the Ministry of Health of Malaysia (MOH) through research registration with the National Medical Research Registration (NMRR). The NMRR research identification number was NMRR-16-39-28882, and the UMMC Ethics Committee identification number was MECID. No: 2016-2050. The approval letter from MOE was KPMSP.600-3/2/3 Jld3 (26).

Prior to data collection, the school principals were approached to explain the details of the study. A file containing the: (1) MOE approval letter, (2) Selangor State Education Department approval letter, (3) UMMC Ethics Committee ethical clearance letter, (4) University of Malaya student confirmation letter, (5) data collection plan and flowchart, and (6) one set of questionnaires was handed to the school principal for record purposes. The study participants' consent was sought prior to the study. Participants were provided with a copy of the consent form and participant information sheet (PIS). This study involved mental health status assessment using the Depression, Anxiety, Stress Scale 21 (DASS-21). Therefore, participants who were identified as having severe and very severe DASS scores were contacted and referred to either their school counsellor or nearest

health clinic for further assessment and investigation. A list of contact numbers that contain hospitals, clinics and non-governmental organisations (NGOs) was handed to the participants (Appendix F). The participants were informed about the mental health assessment using DASS-21 and the possibility of being contacted again for further referral prior to data collection. To ensure confidentiality, the affected participants were contacted by the researcher only. The referral was made after obtaining verbal consent from the participants. Figure 3.3 shows the referral system developed for the purpose of this study.

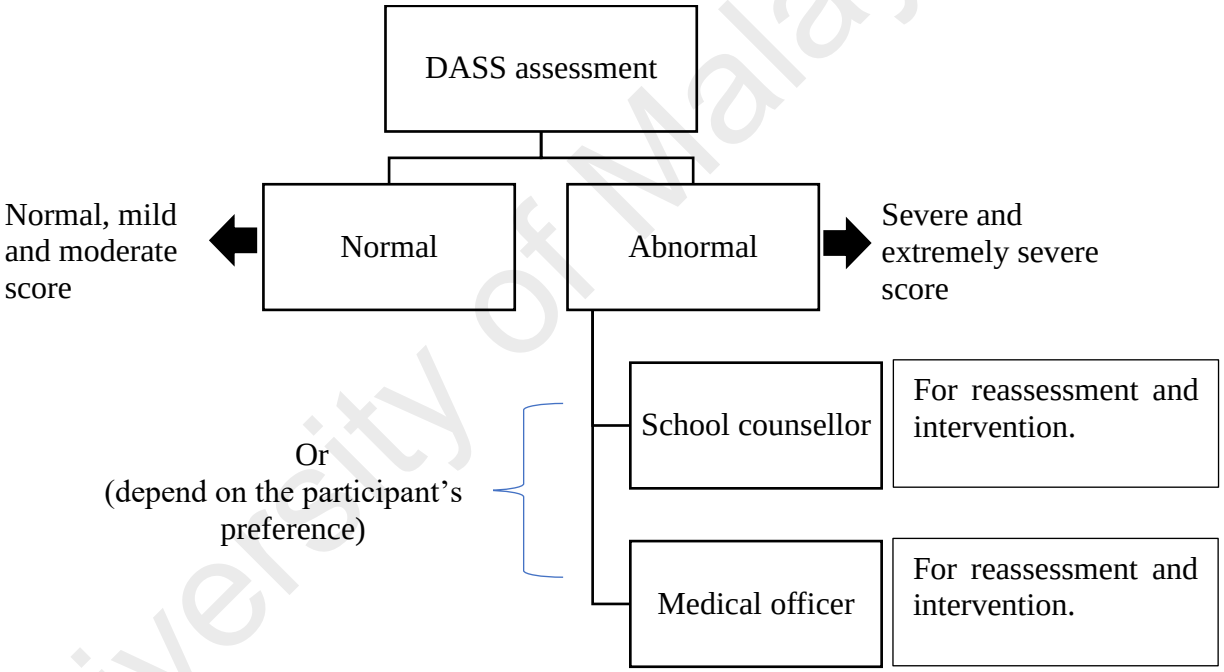

Figure 3.3: Referral System for Participants with Abnormal DASS

Sources:1. Malaysia.Ministry of Health.Mental Health Unit. (2011). *Garis panduan perlaksaan program minda sihat*. Putrajaya, Malaysia: Unit Kesihatan Mental. 2. Malaysia.Ministry of Health.Community Mental Health Unit. (2009). *Garis panduan perlaksanaan perkhidmatan rawatan kesihatan mental di klinik kesihatan* (Second ed.). Putrajaya, Malaysia.

3.3.3 Study Setting

Selangor is one of the 13 states in Malaysia. It consists of nine districts which are Sabak Bernam, Hulu Selangor, Kuala Selangor, Gombak, Petaling, Klang, Hulu Langat, Kuala Langat, and Sepang (Figure 3.4). Selangor has the highest percentage of the population in Peninsular Malaysia. Based on Malaysian population estimates in 2014 to

2016, the total population in Selangor is 6.31 million. The 15 to 64 years age group contributes the largest cohort with 69.2% (Department of Statistics. Malaysia, 2017) (DOSM). According to NHMS 2011, number of adolescents aged between 15 to 19 years is 441,566 which is 8% of Selangor's total population (NHMS, 2011). Out of 277 secondary schools in Selangor, only 77 secondary schools have Form Six courses. Form Six is also known as pre-university and is offered to the students who completed upper secondary school education and Sijil Penilaian Menengah (SPM) aged 17 years and above. Form Six consists of three semesters. The system and quality of the education are similar to other courses such as matriculation, foundation, A-level, O-level and college (Malaysia. Ministry of Education, 2018).

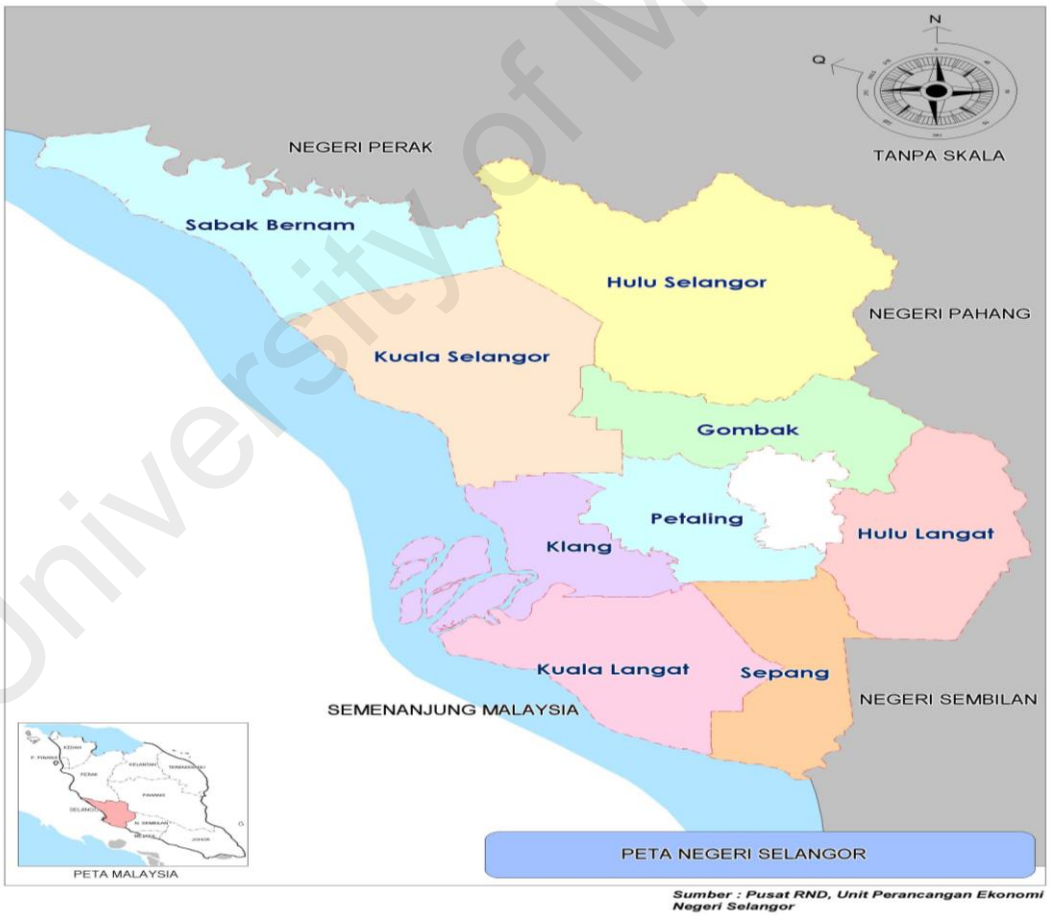

Figure 3.4: Districts in Selangor State

Source: Map of Districts of Selangor. Research and Development Center, Selangor State Economic Planning Unit. Available from http://www.selangor.gov.my

3.3.4 Study Population

3.3.4.1 Sampling frame

The sampling frame of this study was adolescents aged 18 to 19 years which is defined as late adolescence by the World Health Organisation (World Health Organisation, 2017). Late adolescents are mainly studying in college, foundation course, matriculation, pre-university and school. The focus of the study population was adolescents in government secondary schools in Selangor state. These adolescents were studying in Form Six or pre-university. Adolescents in school settings differ from adolescents in other institutions like universities or colleges or welfare institutions in terms of mental health services and accessibility. In secondary school settings, there are school counsellors who are permanently appointed by the Ministry of Education (MOE). The school counsellor helps to attend to the emotional needs of the students as well as their learning problems (Kok, Low, Lee, & Cheah, 2012). Furthermore, the health of secondary school students is under the supervision of the school health team from the Ministry of Health (MOH). These sources may act as a gatekeeper to formal mental health services (Malaysia. Ministry of Education, 2018). Another reason for choosing adolescents at school is accessibility and feasibility to conduct this study in short time period, with limited budget and main power.

3.3.4.2 Selection criteria for the study population

The inclusion and exclusion criteria of the study population included the following:

1. Malaysian citizenship;
2. Age between 18 to 19 years;
3. Government secondary school students who are in Form Six or pre-university course;
4. Able to understand and communicate in written and spoken Malay and English.

Students in private and international secondary schools were excluded because it requires separate permissions.

3.3.5 Sample Size

Sample size was estimated using the following formula (Naing, 2010):

Where,

$n = (z|\Delta)^2 p (1-p)$

n= Sample size

Z= Statistics for a level of confidence

p= Expected proportion of individuals in the sample prevalence

$\triangle$ = Absolute precision

The information for the calculation is shown in Table 3.1. The sample size was calculated based on the prevalence of adolescents who sought treatment or advice from the healthcare provider following general illness for aged 15 to 19 years as reported in the NHMS 2015 (Institute for Public health (IPH), 2015).

Table 3.1: Information for the Calculation of the Sample Size

Symbols	Value
Z statistics for a level of confidence	Value 1.96, using 95% CI
P is the expected prevalence	24.5%. This is based on NHMS 2015 results of expected prevalence of healthcare utilisation among adolescents ages between 15 to 19 years was 24.5% (Institute for Public health (IPH), 2015).
Δ is an absolute precision	± 5%

Thus, the required sample size as calculated below:

$$n = \left(\frac{1.96}{0.05}\right)^2 0.25 (1-0.25)$$

$$n = 288$$

The sample size was then inflated to consider a 20% non-response rate and the estimated design effect for cluster sampling. The calculated sample size was multiplied by the design effect to obtain the correct sample for the clustered sample (Naing, 2010). Information on the estimated design effect was based on the third NHMS. Thus, based on the given formula, the minimum required sample size was 691. The calculation is as follows:

288 + (20% non-response rate) multiplied by design effect (deff)

= 288 + (288*0.2) *2

= 691

The calculation was verified using Epi Info Software Version 7 (Figure 3.5). It is a free downloadable online software.

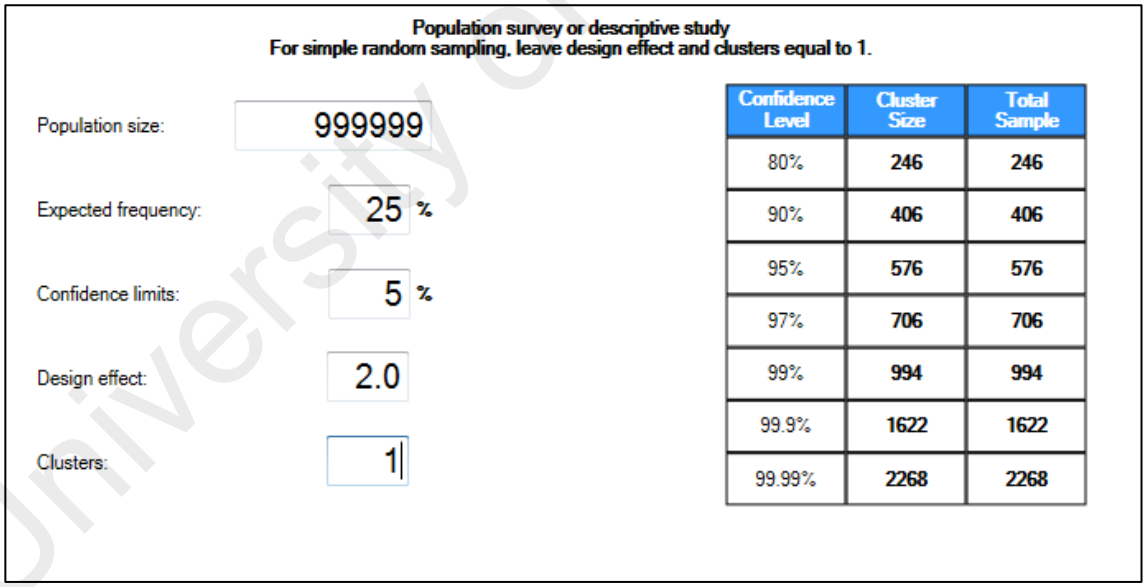

Figure 3.5: Sample Size Calculation using Epi Info Version 7

At the confidence interval of 95%, the required calculated sample size using Epi Info version 7 was 576, and it was multiplied with a 20% non-response rate for a sample size of 691.

The calculation was then verified using PS-Power and Sample Size calculation version 3.1.2 (Table 3.2). This software is also available free and downloadable online.

Table 3.2: Sample Size Calculation using PS-Power and Sample Size

Variables		Values
α	Level of significant	0.05
Power (1-β)	The probability of correctly rejecting the null hypotheses	80% (0.08)
P0	Expected proportion or prevalence based on the previous study	25% (0.25)
P1	Expected proportion based on expert opinion	40% (0.40)
m	Group proportion	1
n	Sample size	304
Additional 20% non-respond rate and design effect, the calculated sample size was		728

Software would estimate the sample size slightly larger than the manual sample size calculation (Naing, 2010). Therefore, the highest calculated sample size was 728. Overall, 771 participants were recruited, thus exceeding the minimum requirement of this study.

3.3.6 Sampling Method

Simple one-stage random cluster sampling was used in this study. The list of government secondary schools in Selangor was obtained from the State Education Department. Out of 277 secondary schools in Selangor, only 77 were identified to have Form Six or pre-university classes. The simple random sampling strategy was used to select the cluster. Each school was considered as a cluster. All the schools were listed and assigned to a random number. The schools were randomly selected using computer-generated random selection using Microsoft Excel. All the students from the selected schools were invited to participate in the study. Each school was estimated to have about 50 to 60 students in Form Six. Therefore, this study needed at least 14 schools to achieve a sample size of 728 participants. This sampling procedure is explained in Figure 3.6.

A total of 22 secondary schools were approved by the MOE and Selangor State Education Department. Out of the 22 schools, two involved with pretesting and pilot study. The other two schools did not respond to the study invitation after multiple contacts and emails leaving 18 schools for the data collection.

The sampling was done based on the available school list at the end of the year 2015. However, during the data collection that commenced in 2017, there were changes to the school list in Selangor. Out of the 18 selected schools, eight closed their Form Six courses, leaving ten schools. This did not fulfil the minimum sample size. A new list of schools for 2017 was obtained from the Selangor State Educational Department with a total of 39 schools and four colleges.

Nevertheless, 12 schools were already in the study list while four colleges were excluded from the random selection process. The reason for the exclusion of the college was that the college environment and setting are different from the secondary school environment. Finally, to achieve the calculated sample size, four schools were randomly selected from the 27 schools. It was then added into the ten existing schools which accounted for an overall total of 14 schools. Out of the 14 selected schools, three schools did not give a good response to multiple contacts. Finally, only 11 schools participated in the study with a total of 771 students. The summary of this sampling procedure is explained in Figure 3.6. Table 3.3 lists the schools that participated in the study.

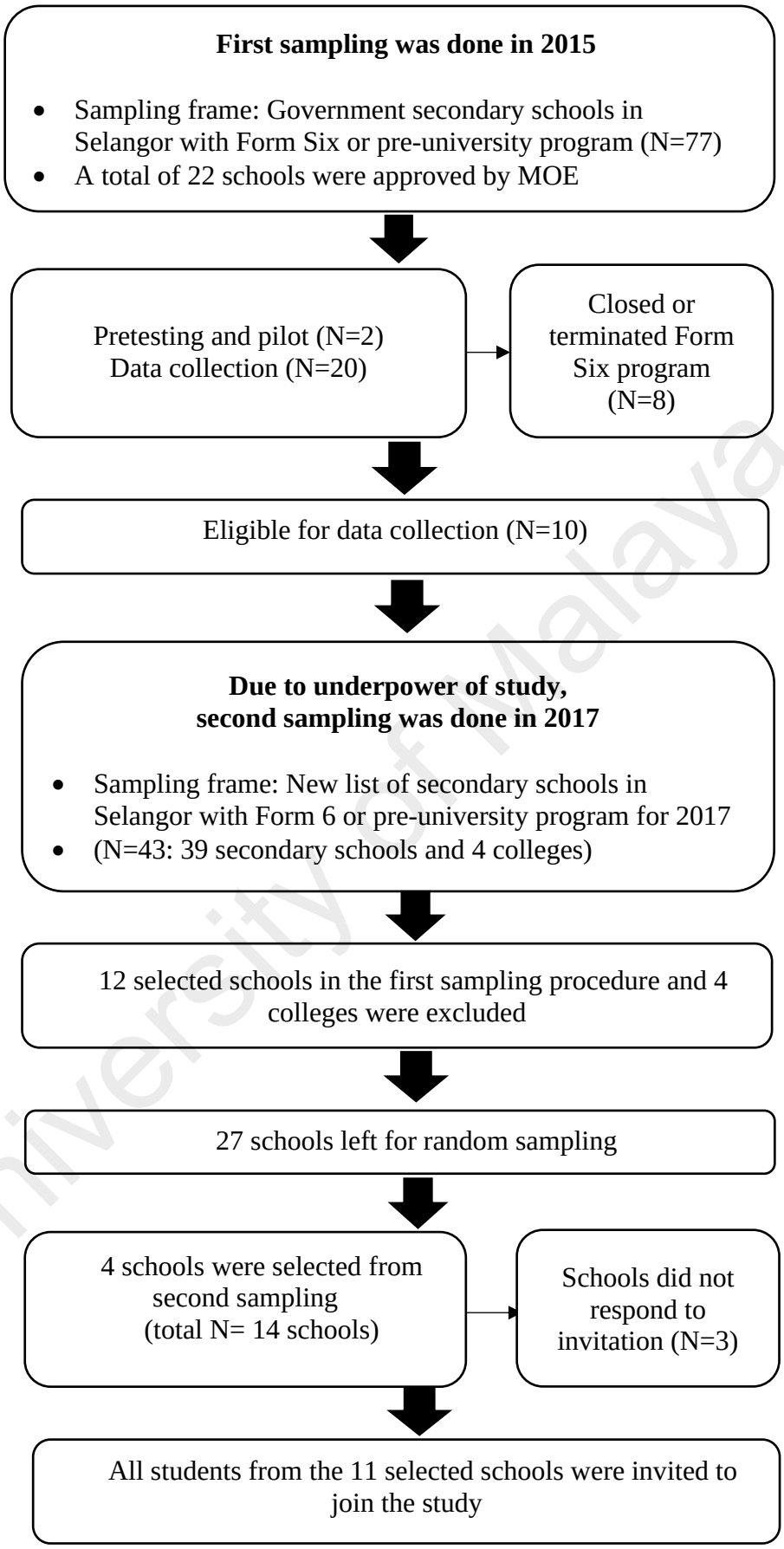

Figure 3.6: Initial Sampling Procedure in 2015 and Second Sampling Procedure in 2017

Table 3.3: List of Secondary Schools in this Study

School Name	Data collection
SMK Telok Datok	Pretesting
SMK Hulu Kelang	Pilot Study
SMK Puchong SMK Darul Ehsan SMK Perimbun SAMT Kuala Kubu Bharu SMK Sultan Abd Aziz Shah SMK Gombak Setia SMK Raja Muda Musa SMK Sungai Kapar Indah SMK Sungai Pelek SMK Bukit Gading SMK Dato Harun Tanjung Karang	11 schools involved in the data collection

SMK : Government secondary school
SAMT : Government secondary school with additional Arabic language and Islamic subjects

3.3.7 Study Instrument

A self-administered questionnaire was used to collect data. The questionnaire was developed from the literature review. Figure 3.7 shows the process of questionnaire development. The collected questions were arranged into eight sections: (1) general information, (2) mental health services utilisation, (3) awareness of the resources, (4) attitudes towards seeking professional help, (5) mental health literacy, (6) stigma, (7) social support, and (8) mental health status. All sections were based on variables in Andersen's Behavioural Model and rearranged for the practicality of this study. The questionnaire was then given to supervisors who are public health specialists to review. All the comments provided by supervisors were used to amend the questionnaire accordingly.

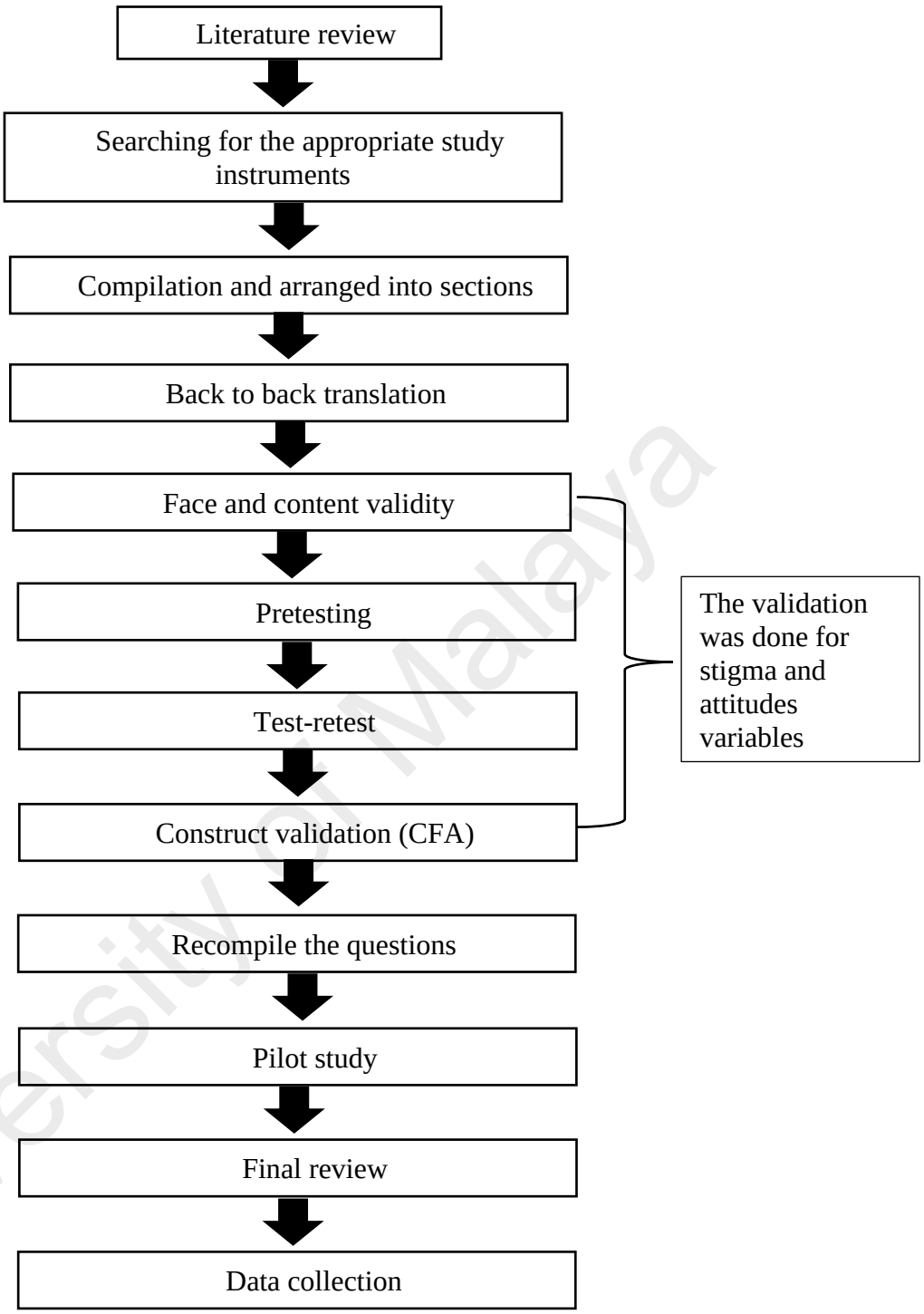

Figure 3.7: Questionnaire Development

3.3.7.1 Back to back translation

Back to back translation involved three phases. In phase one, the questionnaire was translated into Malay by two independent professionals who were medical officers and Malay language teachers. Both were fluent in Malay and English. The Malay translation was reviewed by the researcher, and any discrepancies were discussed with both

translators. In the second phase, a medical officer and English teacher who were also fluent in English and Malay, translated the Malay version into English. Both translations were compared to the original version of the questions. Finally, in phase three, the translated version was reviewed by the researcher and her supervisors. The Malay version of the questionnaire was chosen for the data collection given that all the government schools used Malay as the main medium of communication. It also considered the suggestions given by the school principals and Form Six teachers.

3.3.7.2 Validation process

Validation process involved two components of the questionnaire; the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS) by Mackenzie et al. (2004) for the attitude variable and Perceptions of Stigmatisations by Others for Seeking Help (PSOSH) by Vogel et al., (2009) for the stigma variable. Both scales have never been validated in Malaysia. The rest of the scales or measurement tools used in this questionnaire were previously validated in Malaysia. This validation process started with face and content validity, followed by pretesting, test-retest and CFA.

(a) ***Face and content validity***

The aim of face validity was to determine whether the questions appear to be a valid measure or not. Meanwhile, content validity aims to determine the extent to which the items within IASMHS and PSOSH are relevant to measure attitudes and stigma for Malaysian adolescents (Zainuddin Awang, 2012). Stigma and attitude questions were reviewed by two public health physicians with more than ten years experiences in adolescent mental health and a psychologist. Panel experts assessed the questions and gave feedback by responding to each item in the 4-point Likert scale ranging from one (not relevant) to four (important). Table 3.4 shows the content validity scoring system. The item-content validation index (I-CVI) was calculated based on the response given by

the expert panels. The 4-point ratings were further collapsed into two categories of agree and disagree (Table 3.5). The responses for not relevant and not important were coded as (0) disagree while the responses for relevant and important were coded as (1) agree. Agree category means the items were valid and adequately represent content in the instrument. Whereas, disagree category means the items were invalid and inadequately represent the content of instrument and need to be revised or substituted with another item or deleted (Polit, Beck, & Owen, 2007).

Table 3.4: Content Validity Scoring System

Score	Meaning
1	Not relevant
2	Not important
3	Relevant
4	Important

In this study, the calculated I-CVI for English and Malay version of the two tools was 1.00. This index indicated evidence of excellent content validity based on the experts' rating of the relevance of the items (Polit et al., 2007). The comments by the experts were reviewed and analysed by the researcher. Appropriate corrections were made. In this study, face validity was used as a supplementary form of validity to content validity.

Table 3.5: Category of I-CVI Scoring System

Score	Category
1 Not relevant	Disagree
2 Not important	
3 Relevant	Agree
4 Important	

(b) ***Pretesting of IASMHS and PSOSH***

Pretesting was performed in November 2016 to certify that the Malay version of the questions was appropriate to be used for Malaysian adolescents. The secondary school,

SMK Telok Datok, located in Banting, Selangor was randomly chosen for pretesting. The MOE granted the approval prior to the data collection. The school principal was approached one day prior to data collection and the researcher explained the study and purpose of pretesting. The school counsellor selected students who participated in the pretesting. A total of 14 students aged 18 to 19 years participated in this pre-test. Of these, five were males, and nine were females. The column 'I did not understand this question' was added to each item to identify questions that were not understood by the participants. The extra column for comment was also added to enable the participant to write their reason of not understanding any of the item. The data were reviewed, and no changes were made given that all participants understood well the translated items in the scales.

(c) ***Test-retest***

Test-retest was conducted to test the internal consistency and reliability of the measurement tools. Given secondary schools having final year exam from November to December 2016, Community Colleges were approached for the test-retest. It was conducted in Pekan Community College, Pahang in November 2016. The adolescents in Community College were aged 18 to 19 years, similar to adolescents in Form Six. The approval from the college director was obtained prior to the data collection. A lecturer was appointed as a focal person during the data collection. The test-retest was explained to the lecturer and participants. All participants aged between 18 to 19 years (mean = 18.75, SD = 1.09) were participated voluntarily in the study. The study was conducted over the one-week interval in December 2016. In the first visit, a total of 62 participants completed the questionnaire. The same participants were used in a retest one week later.

Meanwhile, on the second visit, out of 62, only 55 (30 males and 25 females) completed the questionnaire. Seven participants who were absent on the second visit were excluded from the analysis. The data was analysed using Statistical Package for the Social

Sciences (SPSS) version 24. The internal consistency (Cronbach's alpha) value and interclass correlation coefficient (ICC) were obtained to determine the reliability of the measurement tool used. The results are discussed in the following subsection.

i Stigma

Stigma was measured using the PSOSH scale that consists of five items. The internal consistency (Cronbach's alpha) value for the five items was 0.84 which is more than 0.7, suggesting that the items demonstrated relatively high internal consistency. It is similar to Cronbach's alpha value in the original study among the college students, 0.84 (Vogel & Wade, 2009). The minimum corrected item-total correlation (CITC) value is 0.46 which is an adequate correlation in the construct. The results are shown in Table 3.6.

Table 3.6: The Reliability Analysis of PSOSH

Cronbach's alpha	Cronbach's alpha based on standardised items	Minimum CITC
0.84	0.84	0.462

The minimum and maximum value of interclass correlation coefficient (ICC) value are 0.56 and 0.72 respectively (Table 3.7). Thus, the ICC value ranges are considered fair to good agreement (Cicchetti, 1994). The correlation between visit one and visit two over week interval is 0.67 (p-value <0.001). The PSOSH score did not change from the visit 1 (mean= 12.5, SD= 4.29) and visit 2 (mean= 11.51, SD= 4.74; p-value >0.05).

Table 3.7: The Interclass Correlation Coefficient for Test-retest reliability of PSOSH

Item	ICC	95% CI	P-value
S01: *React negatively to you*	0.56	0.25-0.74	<0.01
S02: *Think bad things of you*	0.70	0.48-0.83	<0.01
S03: *See you as seriously disturbed*	0.68	0.45-0.82	<0.01
S04: *Think of you in less favourable way*	0.65	0.40-0.79	<0.01
S05: *Think of posed a risk to others*	0.72	0.51-0.84	<0.01

ii Attitudes

Attitudes was measured using IASMHS by Mackenzie (2004). It consists of three main constructs which are psychological openness, help-seeking propensity, and indifference stigma. The results of test-retest reliability are shown in Tables 3.8 and 3.9.

Table 3.8: The Reliability Analysis of IASMHS

Construct	Number of items	Cronbach's alpha	Minimum CITC
Psychological openness	8	0.41	0.10
Help-seeking propensity	8	0.57	0.02
Indifference stigma	8	0.50	0.17
Full scale	24	0.47	

All the subscales demonstrated relatively low reliability where, all the Cronbach's alphas were from 0.4 to 0.5. Measuring an alpha level of 0.5 can be accepted especially if the study is in the area of psychology and social sciences (Field, 2009). The ICC value ranged from 0.01 to 0.87. Five items showed the value of less than 0.4 which were considered as the poor level of agreement (Table 3.9) (Cicchetti, 1994). The IASMHS was further examined before proceed to confirmatory factor analysis (CFA). Some items were retained even if the items presented with CITC less than 0.3. The reason to retain the items was that it formed an important part of the concept and the theoretical expectations for the underlying attitudes construct. Even though the items with CITC less than 0.3 were deleted, none of the items would increase the reliability value. The Cronbach's alpha values have remained the same or less than the Cronbach's alpha value without items deletion. Thus, the items with CITC less than 0.3 were retained in the construct. However, discussing what respondents thought about the low CITC and ICC

was not done due to logistic reasons and time constraints. After the test-retest for reliability, both scales proceeded with Confirmatory Factors Analysis (CFA).

Table 3.9: Interclass Correlation Coefficient for All Items of IASMHS

Item	ICC	95% CI	P value
Psychological Openness			
Q01	0.58	0.28, 0.76	<0.01
Q04	0.87	0.78, 0.93	<0.01
Q07	0.48	0.11, 0.70	<0.01
Q09	0.01*	-0.68, 0.42	>0.05
Q12	0.19*	-0.40, 0.53	>0.05
Q14	0.58	0.28, 0.76	<0.01
Q21	0.67	0.44, 0.81	<0.01
Help-seeking propensity			
Q02	0.53	0.21, 0.73	<0.01
Q05	0.42	0.03, 0.66	<0.05
Q08	0.43	0.02, 0.67	<0.05
Q10	0.63	0.36, 0.78	<0.01
Q13	0.80	0.66, 0.88	<0.01
Q15	0.73	0.55, 0.84	<0.01
Q19	0.70	0.49, 0.83	<0.01
Q22	0.59	0.29, 0.76	<0.01
Indifference stigma			
Q03	0.68	0.45, 0.81	<0.01
Q06	0.65	0.40, 0.79	<0.01
Q11	0.51	0.51, 0.71	<0.01
Q16	0.47	0.08, 0.69	<0.05
Q17	0.39*	-0.01, 0.64	<0.05
Q20	0.12*	-0.52, 0.49	>0.05
Q23	0.52	0.17, 0.72	<0.01
Q24	0.34*	-0.12, 0.61	>0.05

*Indicates the ICC value less than 0.4 which considered as poor level of agreement

(d) ***Confirmatory Factor Analysis (CFA)***

CFA was conducted to confirm if the items are unidimensional or multidimensional on the scale. The CFA was conducted in three Community Colleges: Temerloh Community College, Jerantut Community College, and Klang Community College in December 2016. The approval from college directors was obtained prior to data collection. On the day of data collection, participants were informed regarding the study purpose and ensured that confidentiality would be maintained. A total of 310 students participated in this study. Only 298 completed the self-administered questionnaire. Of

these, 121 (40.4%) were males and 177 (59.4%) were females aged between 18 to 19 years (mean= 18.48, SD= 0.98). Another 12 participants were excluded from the analysis due to missing data and adult age, more than 19 years old. The data were analysed using Analysis of Moment Structure (AMOS) version 23. The findings of CFA for the POSH scale and IASMHS are discussed in the following subsections.

i Stigma

In this study the factor loading for the stigma scale ranged from 0.48 to 0.82 (Table 3.10). The scale achieved model goodness of fit after correcting the covariates. The fitness of indices is shown in Figure 3.8. Composite reliability (CR) and average variance (AVE) were 0.45 and 0.80 respectively. This study's findings are similar to the original study: Chi-square 14.82, comparative fit index (CFI) 0.99 and root mean square error of approximation (RMSEA) 0.06. Thus, it verified the unidimensional factor structure in the original study.

Table 3.10: Factor Loading of PSOSH

Items	Factor loading
1) React negatively to you	0.48
2) Think bad things of you	0.62
3) See you as seriously disturbed	0.76
4) Think of you in less favourable way	0.82
5) Think you posed a risk to others	0.61

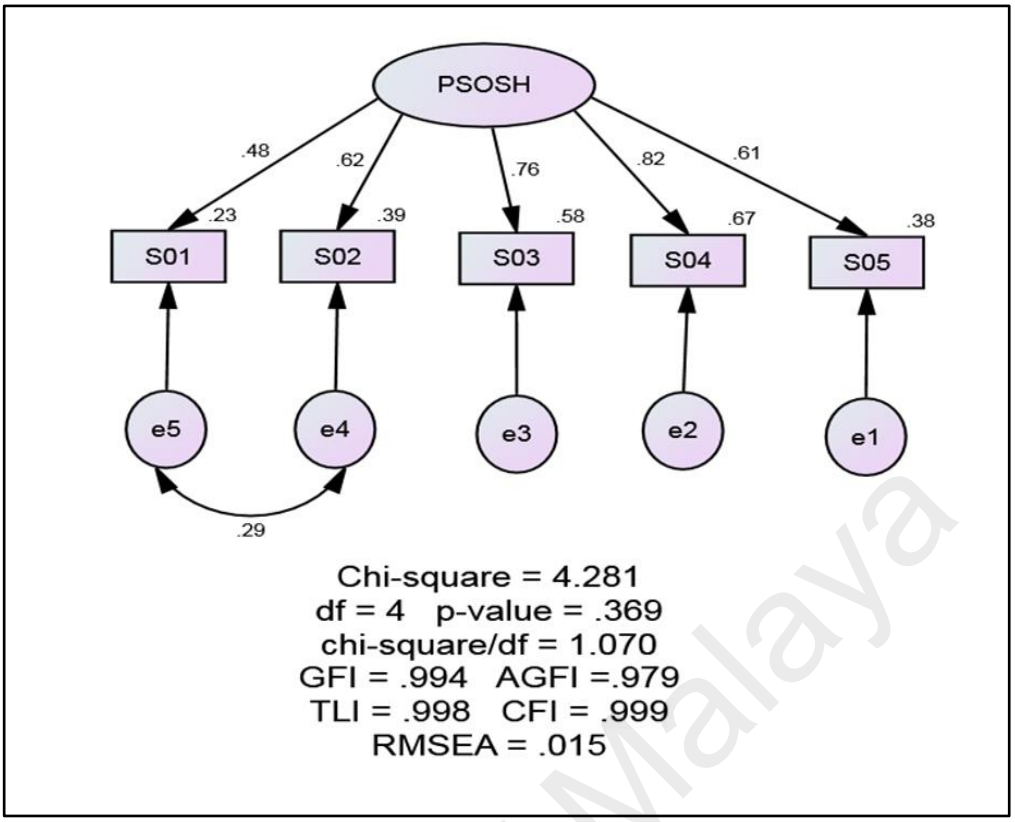

Figure 3.8: Output Path of PSOSH using AMOS

ii Attitudes

The factor loadings showed more than 60% (16 items) had low factor loading (<0.5) which were considered problematic in the model. The measurement model for the construct showed a poor fit. The fitness of indices did not achieve the required level. Factor loadings and the fitness of indices are shown in Table 3.11 and Figure 3.9.

Table 3.11: Factor Loadings of IASMHS

Items	Factor loadings
Psychological openness	
Q01	0.39
Q04	0.41
Q07	0.43
Q09	0.30
Q12	0.48
Q14	0.41
Q18	0.35
Q21	0.33
Help-seeking propensity	
Q02	0.49
Q05	0.45
Q08	0.57
Q10	0.48
Q13	0.50
Q15	0.52
Q19	0.39
Q22	0.30
Indifference stigma	
Q03	0.34
Q06	0.59
Q11	0.59
Q16	0.68
Q17	0.59
Q20	0.60
Q23	0.05
Q24	0.50

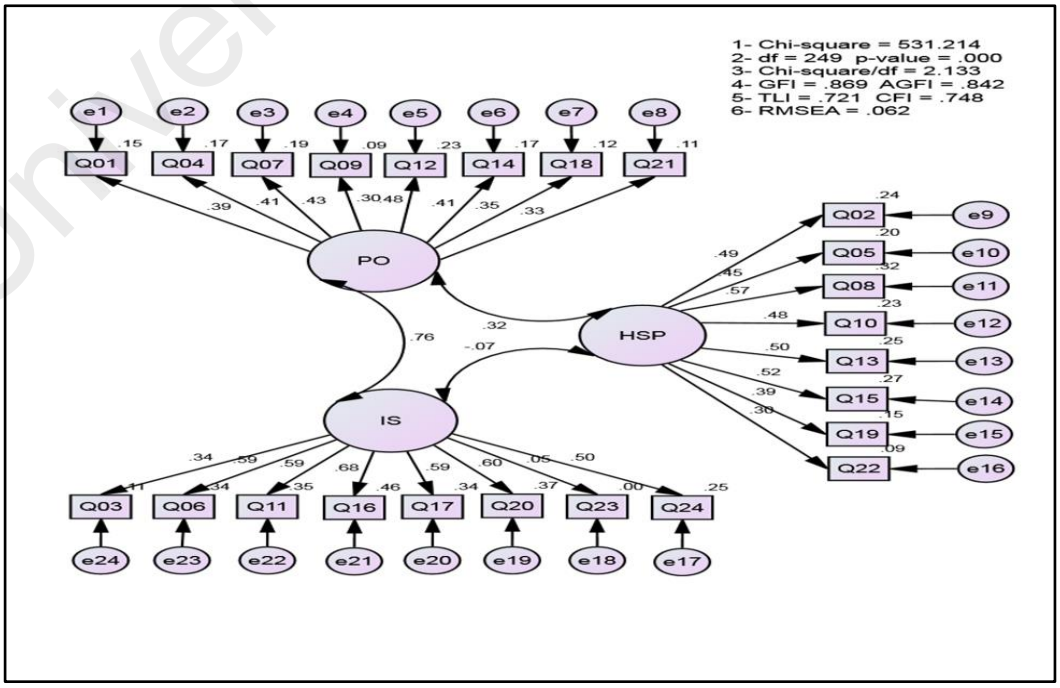

Figure 3.9: Output Path for IASMHS Using AMOS

The items with low factor loadings were deleted one at a time, and a new measurement was run accordingly. In order to achieve the required level of model fitness, nine out of 24 items were deleted. The items deletion exceeded 20% of the total items in the model. Thus, the construct was deemed to be invalid since it failed the 'confirmatory' measurement model at once (Zainuddin Awang, 2012). In previous studies, the validation was done in specific groups such as police officers, Canadian adults, and undergraduate university students. It might not be valid in measuring attitudes of seeking help among Malaysian adolescents.

The results of the validation of IASMHS were discussed thoroughly with the supervisors. The IASMHS was dropped from the questionnaire. In view of the importance of this variable and its influences on mental health service utilisation, the original version of the IASMHS was used. The original version was developed by Fisher and Turner (1970) and is known as the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS). ATSPPHS is a widely used measurement scale for help-seeking. The Malay version of ATSPPHS had been validated in Malaysia among Malaysian college and universities students. Test-retest reliability showed a strong correlation of r= 0.741 (Salim 2010). The other reason for choosing this scale was time-constraint. The school already gave the date in one-week time for the pilot study. At the beginning of the questionnaire development, the IASMHS was chosen over ATSPPHS because it contained fewer items and used more generic language as a replacement to the technical term such as psychologist and psychiatrist to professional and emotional difficulties to the terms of psychological problems. ATSPPHS underwent pretesting among 19 pre-university students in February 2017. All the participants understood the translated items in ATSPPHS, and hence no changes were made.

3.3.7.3 Pilot study

A pilot study was conducted after reviewing the validation components. All the questions were compiled. This pilot study aimed to assess the feasibility of the process of actual data collection, the understanding of the study questionnaire and the length of time to fill out all the study questionnaire. It was performed in February 2017 in SMK Hulu Kelang, Ampang, Selangor. This school was selected for the pilot study because it has the smallest number of students among the other 22 selected schools. A total of 31 students aged between 18 to 19 years (mean= 18.06, SD= 0.25) participated in the pilot study. Prior to data collection, the school principal and Form Six teachers were approached to explain the purpose of the study and the process of data collection. The date for the data collection was set during the meeting with school principals because students were busy with exams and fieldwork. On the day of data collection, the students were gathered in a hall and briefed about the study. Consents were secured prior to the distribution of the questionnaire. The researcher checked all the questionnaires before leaving the school to ensure completeness. The data were analysed using SPSS version 24. The median time to complete the questionnaire was 18 minutes (mean= 20, SD= 10). The quickest time was 10 minutes and the longest time was 55 minutes. The participants understood all the questions.

3.3.7.4 Final review of the questionnaire

A final review of the questionnaire was performed after analysing the pilot study. Some changes were made in terms of structure and instruction to the questions. Finally, the questionnaire consisted of 99 items and was named as “Healthy Minds for Healthy Teenagers” (Appendix A). It was suitable as the study was about help-seeking towards mental health problems which lead to healthy mental well-being. In order to make it more adolescent-friendly, the word ‘mental’ was replaced with ‘minds’ to avoid any sensitivity or negative connotation that might be felt by the students and teachers. This name was

discussed and agreed by the supervisors. The questionnaire was arranged into eight sections (Table 3.12).

Table 3.12: Sections and Number of Items in the Questionnaire

Section	Variables	Number of items
1	General information	13
2	Mental health services utilisation	9
3	Awareness of the resources	1
4	Attitudes towards seeking professional help	29
5	Mental health literacy	8
6	Stigma	5
7	Social support	12
8	Mental health status	22
	Total item	99

3.3.8 Study Variables and Measurement

Dependent Variables

*(a) **Mental health services utilisation***

According to the WHO framework for the optimal mix of services for mental health, the two types of services for the mental health are formal and informal services. Formal services are provided by health care such as primary health care, hospital, community mental health services and psychiatric services. Informal services are provided by the non-healthcare professional in the community such as school, religious organisation, police, non-governmental organisations (NGOs), layperson, user, and family associations. These services are provided in the community but are not part of the 'formal' healthcare and welfare system (World Health Organisation, 2009).

In this study, service use was defined as having consulted or sought help or accessed any healthcare services for mental health problems in the past 12-months. The participants were asked: "In the past 12-months, did you receive or seek any treatment or counselling from any health care services for any problems such as feeling sad, stress, anxious and nervous?". A code of 1 (yes) was assigned if the respondent answered "yes" to having

received any consultation, advice or treatment from healthcare services for mental health problems in the past 12 months prior to the study. While the code of 0 (no) was assigned if the respondent answered "no". Respondents who answered "yes" were asked further about the types of service used: (1) government health clinic, (2) general practice (GP), (3) psychiatric specialist clinic, (4) psychiatry hospital, (5) government general hospital, (6) private hospital, and (7) others. Respondents were also asked about the type of health professional met: (1) psychiatrist, (2) psychologist, (3) counsellor, (4) social worker, (5) occupational therapist, (6) family medicine specialist, and (7) medical officer or paramedic. In addition, the respondents who answered "yes" were asked further about transportation used, distance and time taken to go to the mentioned facilities. Transportation refers to the availability of transport to commute from home to healthcare facilities. Respondents were given options: their own transport, public transport, and no transport. The distance refers to self-reported distance from respondents' home to the mentioned health care facility. Respondents were asked the estimated distance in a kilometre. The time taken refers to the self-reported, estimated time that was taken by the respondents to travel from their home to the mentioned health care facilities. The response was in hours and minutes. Transportation, distance and time taken to the health care facility are a proxy to the accessibility to health services for mental health problem.

Meanwhile, respondents who answered "no" were asked: "In the past 12 months, did you receive any support or advice or counselling for any problems such as feeling sad, stress, anxious or nervous from any of following resources?". For this question, respondents were given a list of sources including informal services (school counsellor, teacher, religious people, website, helpline or hotline, and NGOs) and informal sources of help (parents, friends, siblings, relatives, and internet chat). The informal sources of help in this study were defined as assistance from a person in the respondent's informal social network.

Four mutually exclusive mental health help-seeking categories were used due to overlap between formal services and informal services: formal services only, informal services only, both formal and informal and no help or none. In the regression analysis, a dichotomous variable was created to indicate whether or not the participants used any type of mental health services. The variable was coded into seeking help from any service; both formal and informal services (1) and did not seek help (0). Formal and informal services are listed in Table 3.13.

Table 3.13: List of Formal and Informal Mental Health Services Used in This Study

Formal (healthcare professional)	Informal (Non-healthcare professional)
Health clinic	Religious people
General practice	School counsellor
Psychiatric specialist clinic	Teacher
Government psychiatric hospital	Helpline/ hotline counselling
Government general hospital	Website
Private hospital	NGOs

Independent Variables

The independent variables were arranged according to Andersen's Behavioural Model of Health Services Utilisation that is (1) predisposing factors, (2) enabling factors, and (3) need factors.

(1) Predisposing Factors

Predisposing factors included sociodemographic factors, attitudes, stigma, mental health literacy and help-seeking preference.

(a) ***Sociodemographic***

In the sociodemographic section, participants were asked about their age, gender, ethnicity, parent's marital status, family structure, family size, parent's educational level, parent's occupational status and family history of mental illness.

Age was calculated based on the date of birth of the respondent. Gender refers to the sex of the respondent either male or female. It was coded into 0 (male) and 1 (female).

Race/ethnicity was categorised into: (1) Malay, (2) Chinese, (3) Indian, and (4) Others, as the Malaysian population is largely composed of these three ethnic groups. Others included the other ethics group such as Iban, Kadazan, Bidayuh, Bajau and others indigenous groups in Malaysia (Department of Statistics. Malaysia, 2018).

Marital status refers to the marital status of the respondents' parent. The classification followed the Malaysian standard classification for marital status (Department of Statistics. Malaysia, 2018). The respondents were asked: "What is your parent's marital status?". The respondent was given an option of choosing: (1) single mother/single father, (2) married/remarried (3) widow/widower, (4) divorced/separated, and (5) not reported. Then, it was collapsed into three categories that are (1) married/remarried, (2) single mother or father, and (3) widow/widower/divorced/separated/not reported.

Family structure was obtained using an open-ended question. It was coded into three categories: (1) living with parents, (2) living with father or mother only, and (3) living with others. Others mean other than parents such as grandparent, siblings, relatives or friends. The family includes a parent (nucleus family) or a guardian or a member of the extended family or single parent (Child Act 2001).

Family size was defined in terms of the number of children in a household. According to the Malaysian Census report 2010 by the Department of Statistics Malaysia, average

family size is 4.31. Women, Family and Community Development Minister Rohani Abdul Karim said in the Parliament of Malaysia that the ideal family size is between 3 to 4 children. Four or more is the ideal number to complete a family (The Star 2015). Thus, in this study, the respondent was asked about the number of siblings in the family. It was further classified into less than four siblings (0) and equal or more than four siblings (1).

Parent's educational level refers to the highest level of education achieved by the respondent's father and mother. It was obtained by asking: "What is your parent's educational level?". The responses were divided into father and mother separately. The respondents were given the options: (1) primary school, (2) secondary school, (3) STPM/pre-university, (4) Certificate, (5) Diploma, (6) degree/master, (7) doctorate/ PhD, (8) non-formal, (9) no education, and (10) other. The options were adapted from the classification of the level of education by the Department of Statistics, Malaysia (DOSM) (Department of Statistics. Malaysia, 2018). Then, it was collapsed into five categories: (1) higher education, (2) secondary education, (3) primary education, (4) Non-formal/ no education and (5) Not applicable. Not applicable refers to those respondents whos parents have died or have a single parent.

Parent's occupational status was obtained by asking an open-ended question: "What is your father and mother's occupation?". Based on the respondents' answers, the responses were further coded into the following categories: (1) managers, (2) professionals, (3) technician and associate professionals, (4) clerical support workers, (5) service and sales workers, (6) skilled agricultural, forestry and fishery workers, (7) craft and related trades workers, (8) plant and machine operators and assembles, (9) elementary occupations, and (10) armed forced occupations. This categorisation was based on the Malaysian Standard Classifications of Occupation 2008 (MASCO 2008) (Ministry of Human Resources, 2008). For the purpose of this study, the occupational variable was collapsed into four

categories (1) professional, (2) unprofessional, (3) Retiree/unemployed/self-employed, and (4) do not know/ not applicable.

The family history of mental illness refers to any first-degree relatives with mental illness. A code of 1 (yes) was assigned if the respondent answered "yes" to having the family history of mental illness. A code of 0 (no) was assigned if the respondent answered "no". A code of 2 (do not know) was assigned if the respondents do not know about the family history of mental illness. It was self-reported by the respondents. This variable was then collapsed into no family history or do not know (0) and having a family history as (1).

Attitudes towards help-seeking were assessed using the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS). It was developed by Fischer and Turner in 1970 that consists of 29 items (Fischer & Turner, 1970). The responses were based on a 4-point Likert scale: 0= disagreement, 1= probable disagreement, 2= probable agreement, and 3= agreement. The total score was calculated by summing all the items after reverse scoring of 18 items (1, 3, 4, 6, 8, 9, 10, 13, 14, 15, 17, 19, 20, 21, 22, 24, 26, 29). The scores were then categorised into low (0-49) which reflected negative attitudes toward seeking professional help, medium (50-63), which implied that professional help can be useful, and high (64-87), which reflected very positive attitudes toward seeking professional help. This scale has been used in other studies among Malaysian college and university students. Some changes in terminology were made on the words psychiatrist and psychiatric by substituting to words "counsellors" and "psychologist" respectively (Salim, 2010). These changes were made in order to avoid sensitivity to school students. The Malay version was validated and showed a strong correlation of r= 0.741(Salim, 2010). In the original study, it demonstrated a good internal consistency of 0.86 for the standardisation sample of n= 212 and 0.83 in a larger sample of n= 406.

Stigma was assessed using the Perceptions of Stigmatisation by Others for Seeking Help scale (PSOSH). It was designed to investigate the degree to which the individual perceives that their social network views seeking help for mental health problems as stigmatising (Vogel & Wade, 2009). It consists of five items which was rated on the 5-point Likert scale: 1= Not at all, 2= a little, 3= some, 4= a lot, and 5= a great deal. The respondents were read the instruction: "Imagine if you had an emotional and personal issue that you could not solve on your own if you sought mental health services for this issue, to what degree do you believe that people you interact with would…" and rated the following statement. All the items were summed. The higher scores reflex greater perceptions of stigma by those who are close to the person seeking professional help. The scale in the original study demonstrated good internal consistency with Cronbach's alpha of 0.84 (Vogel & Wade, 2009). In this study, the scale was found to be reliable and valid with the Cronbach's alpha of 0.84, and test-retest ICC ranged from 0.56 to 0.72 (p-value <0.05). Permission to use this scale was obtained from Professor David L. Vogel from Iowa State University.

Mental health literacy was defined as "knowledge and belief about mental health disorders which aid their recognition, management or prevention" (Jorm et al., 1997). In this study, mental health literacy was focused on knowledge and belief about depression. This is because depression is the most common mental illness among adolescents (World Health Organisation, 2015b). This question was adopted and adapted from the mental health literacy toward depression by Khan et al. (2010). It comprises five components: (1) general knowledge about depression, (2) perceptions about the causes of depression, (3) recognition of the symptoms of depression, (4) knowledge regarding the medicine used, and (5) belief in the preventive measure (Table 3.14). The ability to recognise the symptoms of depression was used to assess knowledge about depression (for details, refer to Table 3.14). This tool has been validated in a study among students at a public

university in Malaysia with an internal consistency (Cronbach's alpha) of 0.76. The content validity reported a significant Bartlett's test of sphericity p-value <0.05 and Kaiser-Mayer-Olkin (KMO) of 0.79. Permission to use this tool was obtained from Dr Tahir M Khan from Monash University, Malaysia Campus.

Help-seeking preferences were assessed by asking an open-ended question: "If you feel sad, stress, anxious or nervous, with whom do you like to seek help?". This question allows respondents to freely express their preferable person for seeking help for their emotional and mental health problems.

Table 3.14: Mental Health Literacy

Components	Items/ questions	Respond/ scoring
1) General knowledge about depression	1- Have your ever heard about depression?	Yes/ No
	2- Where did you heard about depression for at very first time	List of options given
	3- What type of depression you have heard about?	List of options given
	4- Have you ever suffered from depression?	Yes/ No/ Don't want to disclosed
2) Perception of causes of depression	Respondents were provided with seven possible causes of depression and allowed to choose more than one. Depression can result from the following factors?	1) Failure in achievement 2) Examinations 3) Chemical imbalance 4) Death of love ones 5) Home/family disharmony 6) Relationship breakup 7) Occurring automatically 8) Don't know
3) Recognition of symptoms of depression (knowledge about depression)	Aim to estimate the respondent's knowledge. In your opinion, which of the following are the symptoms of depression?	Respondents were given nine options and allowed to choose more than one answer. Every one answer (Yes) added on point to respondents' knowledge. The responses were scored and categorized into 0 = very poor 1-2 = poor 3-4 = moderate 5-6 = good 7-8 = very good 9 = excellent
4) Knowledge regarding the medicine	What are the following medicine is best to treat depression?	List of options given
5) Belief in preventive measure	What are your opinion about the following prevention of depression?	Respondents were allowed to choose more than one option. 1) Keeping physically active 2) By maintaining a good social live 3) by avoiding stressful situation 4) By avoiding alcohol, smoking, and other drug abuse

(2) Enabling Factors

Enabling factors include household income, awareness of the available resources and social support. Household income refers to the amount of combined incomes of people sharing a household. In this study, it refers to the total income of the parents and siblings that contributes to household expenses. Household income was categorised based on income categories by the Department of Statistics, Malaysia (Department of Statistics. Malaysia, 2015).

1) Lowest: RM499-999
2) Second: RM1000-1999
3) Third: RM2000-2999
4) Fourth: RM3000-4999
5) Highest: RM5000 and above

Awareness of resources was measured using the researcher's created list based on the available mental health resources to all the participants (Table 3.15). The respondents were asked whether they were aware or not of the resources on the list. The respondents were allowed to choose more than one option. Respondents were considered aware if they had to choose at least one of the resources. It was dichotomised into aware (1) and not aware (0).

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS). It consists of 12 items rated on the 7-point Likert scale: (1) very strongly disagree, (2) strongly disagree, (3) mildly disagree, (4) neutral, (5) mildly agree, (6) strongly agree, and (7) very strongly agree. The scale consists of three subscales to measure perceived support from family, friend and significant others. Each source of social support was asked with four specific items. A sample item for family support is "my family really tries to help me". A sample item for the friend support is "my friends

really try to help me". A sample item for support by significant other is "there is a special person who is around when I am in need". The mean score was calculated for a total score by summing all the items and divided by 12. Meanwhile, the mean score for each subscale was calculated by summing the related items and divided by four. In this study the scores were categorised into: low social support (1 to 2.9), moderate social support (3 to 5), and high social support (5.1 to 7). This approach has more validity (Zimet, Dahlem, Zimet, & Farley, 1988). In the original study, the entire scale and its subscales reported having good internal consistency. Cronbach's alpha for the total scale was 0.88, and for the three subscales, it ranged from 0.85 to 0.91 (Zimet et al., 1988). The Malay version of MSPSS was validated by C.G Ng et al. (2010) among Malaysian adolescents. It showed good psychometric properties: internal consistency, 0.89, reliability 0.94 and test-retest reliability 0.77 (Spearman's rho, $p<0.01$). Permission to use this scale was granted by Professor Dr Gregory D. Zimet from Indiana University School of Medicine.

Table 3.15: List of Resources Available for Mental health Problems

No.	Resources
1	Government health clinic
2	Private clinic
3	Government psychiatric clinic
4	Government general hospital
5	Private hospital
6	Private psychiatric/psychology clinic
7	School counsellor
8	NGOs
9	Online counselling
10	Helpline or hotline counselling
11	Café @TEEN adolescent Centre, LPPKN
12	Others (specify)

(3) Need Factors

Need factors include perceived need for help, perceived general health and mental health status.

(b) ***Perceived need for help***

Perceived need for help was assessed by asking the respondents a question: "In the past 12 months, did you think you needed help for emotional or mental health problems such as feeling sad, stress, anxious or nervous?". The response was coded into (1) yes if the respondents needed help for mental health problems, (0) no if the respondents did not need any help, and (2) don't know if the respondent was not sure whether he or she needed help or not.

(c) ***Perceived general health***

Perceived general health refers to the health condition of the respondents for the past two weeks. It was assessed by the following question: "In general, how would you rate your general health in the past two weeks?". Respondents were given the following options: (1) very good, (2) good, (3) moderate, (4) not good, and (5) very bad.

(d) ***Mental health status***

Mental health status was measured using the Depression, Anxiety and Stress Scale (DASS). This is the commonest scale used in assessing mental health status of adolescents at secondary school and primary healthcare setting. It is suitable for screening the normal population, i.e. non-clinical samples. It consists of 21 items with three subscales, rated on the 4-Point Likert scale: 0= never, 1= sometimes, 2= often, and 3= almost always. Respondents were asked to rate based on the given statements. Score for depression, anxiety and stress were calculated by summing the scores for the relevant items. The calculated scores were multiplied by two to make it comparable to DASS normative data sources. It was categorised according to the severity of the symptoms (Table 3.16). The scale has been translated into the Malay language and previously validated, with a good internal consistency for overall scale, 0.90, and the subscales for depression, anxiety and stress were 0.84, 0.74 and 0.79 respectively (Musa, Fadzil, & Zain, 2007).

Table 3.16: DASS Severity Score

Severity	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

3.3.9 Data Collection

Data collection was conducted from February to June 2017. A structured self-administered questionnaire was used as the method of data collection. To ensure efficiency, an appointment was made beforehand with the school management. The approval was obtained from MOE, Selangor State Education Department, and school principal prior to data collection. The number of students was obtained from the school administration. All students aged 18 to 19 years were invited to participate in the study. Written informed consents were obtained. Only students who consented were recruited into the study. Participants were informed the purpose of the study and given instructions on how to answer the questionnaire. The details were discussed in the ethical consideration subsection. All participants were gathered in the hall or classroom. A copy of the questionnaire with a unique identifier number and a piece of coloured paper were given to participants separately. Participants were asked to write their name and contact number on the colour paper and put it into an opaque envelope. This colour paper that contained a contact number was used for the referral if the participants had abnormal DASS scores. It was also used to contact participants for the qualitative phase. All the coloured papers were handed to the researcher and placed in a box. During the questionnaire administration, participants were allowed to ask questions from the researcher only. The researcher collected the completed questionnaires and placed them

in a separate box. A total of 771 participants answered the questionnaires but 13 were excluded due to incomplete questionnaires with missing values.

3.3.10 Data Validation Process

To ensure the overall quality of the data entered, a few steps were taken such as development of data standard, i.e. codebook, data screening, data cleaning, and missing data management.

3.3.10.1 Data standard development

A codebook was created as a data standard. This codebook contains sections in the questionnaire, variables name, variable label, types of variable, unit and value description of the variables. It was used as a guide for coding responses and missing value in the database. It also served as documentation of the layout and code definitions of the data file. The codebook was updated regularly.

3.3.10.2 Data screening

To ensure the completeness of the collected data, during the data collection, the participants were reminded to answer all the questions according to the given instructions. All the questionnaires were checked for completeness before leaving the school compound. Moreover, prior to data entry, every questionnaire was double checked by the researcher to ensure no missing pages and information.

Each questionnaire was tagged with a unique identifier number to ensure the confidentiality of the respondent's identity. Data were entered into the statistical software, SPSS version 24. Furthermore, after completing the data entry, the data was again randomly screened for the consistency and accuracy. About 10% of the questionnaires were randomly selected and compared to the entered data (Lavrakas, 2008). The entered data was found to be consistent with the questionnaire.

3.3.10.3 Data cleaning

Following the data screening process, data cleaning was performed to identify; (1) duplicate respondents, (2) double entry, (3) invalid codes, (4) outliers, (5) missing values, and (6) out of range or extreme observations. The data were explored using frequencies and descriptive statistics. This cleaning process was done using SPSS version 24. For safekeeping purposes, a copy of the dataset was stored on Google drive, email, external hard disk and USB.

3.3.10.4 Dealing with missing data

Participants were contacted for any missing values in the questionnaire. If the participants were unreachable after three attempts, the missing data were then addressed and resolved using SPSS missing value analysis. The estimation of expectation-maximisation (EM) was performed in order to determine if the participants with missing values were different from the participants without missing values. The result revealed a non-significant p-value ($p>0.05$). Thus, it indicated that the missing values were missing completely at random (MCAR), in the sense that the likelihood of missing depends neither on the observed data nor missing data. A small amount of missing data, which is less than 5% was presented for some variables. Missing value pattern was examined and indicated that the missing values were MCAR. Missing values that were completely at random and very small were retained. Listwise deletion was used during the data analysis.

3.3.11 Data Analysis

The data were analysed using IBM SPSS Statistics version 24. Descriptive statistics were used to describe the characteristics of the study population. In descriptive analyses, the frequency distribution, measures of central tendencies and measures of distribution were produced. The categorical variables were summarised using counts and percentages (%) whereas, continuous variables were presented using mean and standard deviation

(SD). Comparison between two groups was analysed using Chi-square or Fisher's exact test for categorical variables depending on the expected values in the cells and independent t-test for continuous variables. Some independent variables were re-categorised when it was deemed necessary.

Univariable analyses were carried out using simple binary logistic regression to assess the relationship between outcome variable; mental health services utilisation and its determinants. The variables which gave significant level <0.25 in univariate analysis were included in the preliminary model of multiple logistic regression. The multivariable analysis was performed using multiple binary logistic regression, enter method. Regression analyses were performed according to three different sets of variables. It was entered in the block according to the conceptual framework. Model 1 for the predisposing factors, followed by model 2 by adding the enabling factors and model 3 by adding the need factors. All the irrelevant variables with a significant value more than 0.05 were eliminated from the model. In the final model, only variables that were significant in the model 1 through model 3 were included in the final model. Results were presented as an adjusted odds ratio (AOR) with 95% confident interval (CI). The final model was assessed for its goodness of fit.

(a) ***Complex sample analysis***

Taking into consideration the clustered sample design, complex sample analysis was performed. In this analysis, the standard error was adjusted to allow for the clustering effect (Mariu et al., 2012). In this study, participants were recruited using random cluster sampling, which is the unequal probability of selection. Thus, the data analysis considered the student weightage in each school to adjust for the unequal probability of being selected. The weightage of the students was obtained by dividing the total number of Form Six students in schools with the number of Form Six students who participated in

the study. The weightage of the schools was obtained by dividing the total number of schools with Form Six classes in the state of Selangor with the number of selected schools within the sampling frame. The total weightage was obtained by multiplying the students' weightage and schools' weightage. The value of this calculation is presented in Table 3.17. The sample plan for complex samples was created before the analysis using the total weightage calculated. Complex samples multiple logistic regression analysis was used and presented using Odds ratio (OR), standard error (SE) and 95% CI with the significance level at 0.05. Results from complex samples analyses were compared with the observed data. Only observed data is reported if the results are comparable.

The weighting formula

1- The student weightage:

$W^{ST} = N^{ST} / n^{ST}$

When,

N^{ST} is the total students in schools

n^{ST} is the total number of students participated in the study

2- The school weightage

$W^{SC} = N^{SC} / n^{SC}$

When,

N^{SC} is the total number of schools in the sample frame

n^{SC} is the number of selected schools in the sample frame

3- The total weightage

$TW^{SC*ST} = W^{SC} * W^{ST}$

Table 3.17: Students, Schools and Total Weightage

School Name	Total Students	Total Participated Students	W^{sc}	W^{st}	TW^{SC*ST}
SMK Puchong	60	60	7	1.00	7
SMK Darul Ehsan	100	84	7	1.19	8.33
SMK Perimbun	67	58	7	1.16	8.12
SMK Gombak Setia	100	95	7	1.05	7.35
SMK Sultan Abdul Aziz Shah	50	45	7	1.11	7.77
SAMT Kuala Kubu Bharu	70	63	7	1.11	7.77
SMK Sungai Kapar Indah	150	118	7	1.27	8.89
SMK Raja Muda Musa	46	43	7	1.07	7.49
SMK Sg Pelek	59	54	7	1.09	7.63
SMK Dato' Harun	80	73	7	1.10	7.70
SMK Bukit Gading	150	78	7	1.92	13.44
Total	932	771			

3.4 Methods of the Qualitative Phase

Subsequent to the quantitative phase, a qualitative study was conducted. This qualitative approach helps in understanding adolescents' help-seeking behaviour and the barriers to seek help for their mental health problem.

3.4.1 Study Design

The qualitative inquiry was used to study individual experiences, perception and thoughts for accessing or seeking help from mental health professionals. This approach helps to explain the reasons why participants were reluctant to seek help when experiencing mental health problems.

3.4.2 Ethical Consideration

The ethical consideration was included as part of the quantitative phase during the ethical clearance process. The ethics committees were aware that the study has quantitative and qualitative phases. Approval was given by the UMMC Ethics Committee (MECID. No: 2016-2050) and the Ministry of Education (KPMSP.600-3/2/3 Jld3 (26)). This study was also registered with the NMRR (NMRR-16-39-28882). The teachers were informed regarding the qualitative study that would be conducted after the quantitative phase. The teachers were made aware about the procedure of data collection using the audiotape recorder. However, the participants' names were kept confidential from the school teacher. The researcher kept the audiotape information confidential.

During data collection, if the participants were found to exhibit any self-harm tendencies or cause harm to others or have suicidal ideation or attempt suicide, an immediate referral would be made to the nearest hospital or clinic. However, if participants refused to be referred to any healthcare providers, a list of contacts (Appendix F) that contain information on hospitals, mental health-related government bodies and NGOs was given to the participants. The main contact number that can be reached and contacted for 24 hours such as Befrienders was the first contact on the list. This issue had been discussed with a psychiatrist in Hospital Kuala Lumpur.

3.4.3 Setting

The setting of the qualitative phase was the same setting of the quantitative phase. The study was conducted in secondary schools in Selangor with Form Six classes.

3.4.4 Sampling Method and Sample Size

The quantitative phase gave information on the type of participants to be included in the qualitative phase (Creswell & Creswell, 2014). In this study, the participants were selected using criterion purposive sampling. The participants were the same participants

in the quantitative phase. The advantage of this sampling method is that it provides the complexity of the information given by the participants (Creswell & Creswell, 2014). The interviews were carried on until it reached saturation point.

3.4.5 Recruitment of Participants

In this study, the participants were recruited using criterion sampling. It was based on predetermined criteria from the quantitative phase which were (1) participant who perceived need for help for mental health problem, (2) abnormal DASS scores comprising severe and extremely severe depression or anxiety or stress, (3) sought formal or informal help or did not seek help at all. These criteria help in understanding the phenomenon of help-seeking and barriers to seeking professional help. To ensure the maximum variation of participants, they were selected from different gender, ethnicity, household income-range from low to high income, parent's marital status, and family structure and size.

Participants were informed during the quantitative phase regarding the possibility of a second data collection which was the qualitative phase. The researcher would call participants who met the criteria for an interview. The participants were contacted via a telephone call to get their verbal consent for the in-depth interview. The purpose and confidentiality of the interview were explained to the participants. Only participants who consented verbally were invited to the interviews. The date was set according to the participant's availability and preferability. The school teachers were only informed of the number of students eligible for the interview and the date of the interview. However, the name and identity of the participants were kept confidential.

3.4.6 Instrument Used

An in-depth interview topic guide was developed by the researcher as a guide during the interview in terms of questions to ask as well as recording and writing down the information obtained during the interview. The topic guide was developed base on the

preliminary findings of the quantitative phase. It consists of main five components: (1) Introduction, (2) ground rules, (3) self-introduction, (4) main questions, and (5) closing. The main questions were semi-structured open-ended and probing. The topics were predetermined based on the quantitative results. Before asking the main question, participants were given a vignette on depression, adapted from professor Jorm 1997 (Jorm et al., 1997). Given the sensitivity of the topic and participants were selected from the general population, the vignette would be useful to create a safe atmosphere which is less personal (Barter & Renold, 1999). Similar to the quantitative questionnaire, the interview protocol was also translated into Malay. The interview protocol was pretested by conducting two series of IDIs prior to the main data collection. It was conducted in SMK Puchong. The main aims of pretesting were to determine participants' understanding of the questions and to look into the feasibility of the interview as well as to observe the environment during the interview. Following the first pretesting interview, modifications were made, some questions were rephrased, and probing questions were added. The second version was pretested and finalised for actual IDI. The findings of the pretesting interview are included in the results chapter. The interview protocol guide is attached as Appendix B.

3.4.7 Data Collection

Data were collected by the researcher between June to August 2017 after completing the quantitative data collection and preliminary analysis. In view of the sensitivity of the topic, in-depth interviews (IDI) was chosen as the tool (Liamputtong, 2007; Elmir et al., 2011). Selection of venue was discussed with school teachers with the agreement of participants prior to IDI. A total of 22 participants were interviewed. Out of 22, 11 interviews were conducted in school compounds such as a private discussion room, meeting room and library in the presence of only the researcher and participant. The other 11 interviews were conducted outside schools due to: 1) no available room in the school

due to exam, 2) school occupied with events such as sport day, festival celebration and visit from the MOE, 3) students preferred to be interviewed during the weekend, and 4) students requested to be interviewed outside school because they are afraid their teachers and friends might see them with the researcher. To ensure a smooth flowing interview, the researcher's interview checklist was prepared for the interview (Appendix C).

The interview began with ice breaking to ensure the researcher and participants were comfortable with each other. It started with self-introduction. The interview was conducted once participants were comfortable and ready. The written consent was handed to the participant prior to the interview. Permission was obtained from the participant to switch on audiotape. To assist in data collection, a semi-structured interview topic guide was used. The guide was developed by the researcher based on the literature and results from the first phase where main domains were identified. The interviews were recorded in MP3 format using a portable SONY digital voice recorder. It had high sensitivity and a low noise microphone system that filter noises and had direct USB connectivity. The device was checked prior to the interview session. The recorder was placed on the table to record the conversation clearly. Each interview lasted between 25 to 45 minutes. In addition to the audiotape recorder, a field notebook was used to record the interview if there was any technical issues with the recorder.

3.4.8 Transcription

The taped interviews were transcribed verbatim in Microsoft Office Word 2016 by the researcher. It was maintained in the original language of the interview, i.e. Malay. QSR Nvivo Pro 11 software was used to assist the detailed coding and further analysis in a structured form.

3.4.8.1 Transcription quality assurance

To ensure the quality of transcripts, the transcription process was divided into two levels. In the first level of transcription, the transcriber typed the content into a prepared Word document template. In the second level of transcription, the transcriptions were double checked to make sure no mistakes were made during the transcription. This is called an audio proofing (Poland, 2003). The researcher listened to the recording again while checking the typed transcript to look for consistency of spelling and context. Mishears, formatting issues and all the indiscernible tags left behind by the first-level transcriber were corrected.

3.4.9 Data Analysis

The interview data were subject to content analysis. Content analysis is a process of systematically coding and categorising to explore the textual information and determine the trends and patterns of words used, the frequency, its relations and structures (Cresswell & Cresswell, 2014). It is also suited to analyse sensitive topics such as mental health (Vaismoradi, Turunen, & Bondas, 2013). This analysis helps to answer the research questions of what are the reasons or barriers for participants with mental health problems for seeking professional help. The analysis was done by the researcher.

Potentially identifying information was removed and replaced with the unique ID to protect participants' anonymity prior to reporting the result. The interview transcripts provided the raw data and needed to be analysed systematically. First, the interview questions provided initial coding list with higher coded and related lower codes (daughter code) which later evolved as the analysis progress.

The available free flow data was read and organised to provide a general idea and familiarisation of it. The texts were further broken into a unit of analysis in order to form codes. From the coding analysis, categories were developed, the sub-themes and themes

were emerged. The themes might evolve throughout the data analysis. All categories were labelled with the actual language of the participants. The coding process was continued until no new themes emerged where the additional data was accounted in the developed categories. It was achieved at a relatively later stage of analysis. Finally, the themes were interpreted according to the specific focus research questions. Data analysis strategy is explained in Figure 3.10. This process was aided by a data analysis software, QSR NVivo Pro 11. NVivo is a qualitative data analysis computer software package that makes the analytical process more flexible, transparent and trustworthy (Kaefer, Roper, & Sinha, 2015). In this study, it acts a tool for managing and organising data. The interview transcripts in the Word document were imported to the project file created by the researcher in the NVivo software. The texts were coded. Coding is an act of assigning segment of text to a node. NVivo facilitated the coding process through the software's coding system created by the researcher. It allows the researcher to retrieve the coded texts because it was linked with the individual sources i.e. interview transcripts (Siti Uzairah, 2016). The researcher can read and check back and forth between the analysis and data sources. Along the coding process, coding frequencies can be readily viewed, helping the next process of developing categories or themes. NVivo allows the researcher to structure the nodes, this is where the texts were coded, hierarchically so that a parent node can have multiple child nodes. One of the advantages of suing NVivo is that it provides a range of tools that help the analytical process become more comprehensible and retractable. For example, the log file in which each activity done in NVivo was registered. It also has the ability to export and save coding extract and node structures (Kaefer, Roper, & Sinha, 2015).

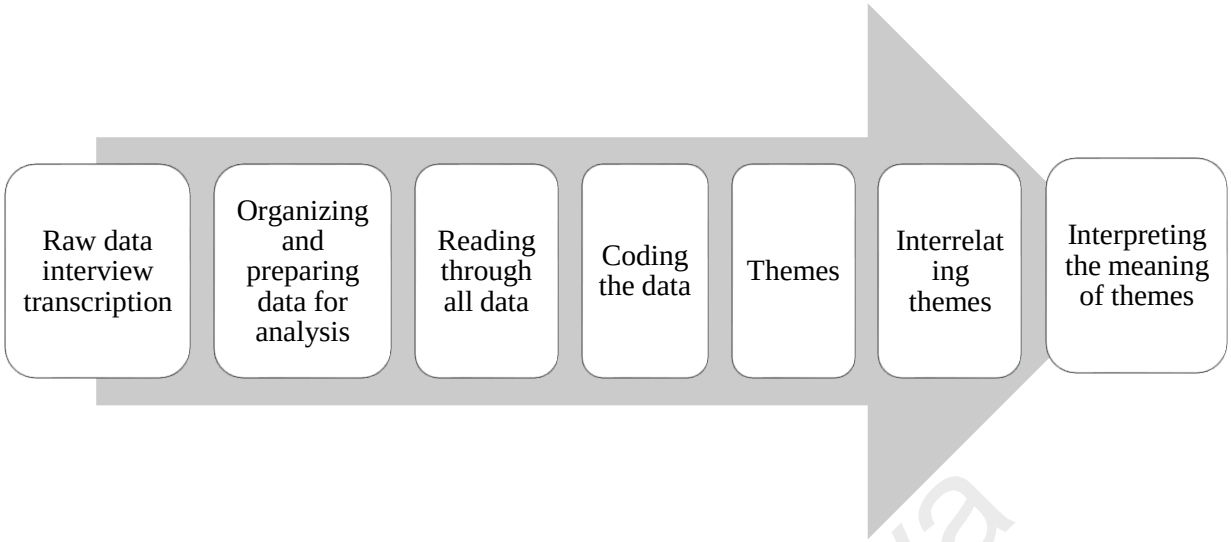

Figure 3.10: Data Analysis Strategy Adapted from John Creswell 2014

3.4.10 Reliability and Validity of the Findings

Reliability and validity are important terms in quantitative research, while in qualitative research it is referred to as trustworthiness (Elo et al., 2014). In this study, a few strategies were employed to ensure the study findings are valid.

(a) ***Interview reliability***

The transcription was checked to ensure that it did not contain any major mistake. Transcription quality assurance was applied. The codes and themes generated during data analysis were continually compared with the memos write up for the codes and its definition (Creswell & Creswell, 2014). The codes were also discussed and cross-checked by the supervisors (cross-checking).

(b) ***Data translations***

Data translations were performed for selected quotes only for the purpose of results presentation. It was done by a dedicated translator. The rest of the data was kept in the original language to maintain the true meaning of the interview data while interpreting the results.

(c) ***Member checking***

Credibility of the study findings can be established through member checking. It is known as participants validation (Birt, Scott, Cavers, Campbell, & Walter, 2016). The results are returned to the participants via the mobile application called WhatsApp's to check for resonance with their experiences and whatever they had shared.

(d) ***Audit trail***

To ensure confirmability of the study findings, the researcher provided an audit trail using a log file, a tool in NVivo software that helps the researcher to recode and trace each action done in NVivo software.

(e) ***Triangulation of methods***

Methodological triangulation was applied to determine the credibility of the qualitative findings. In this study, evidence from quantitative findings was used to support the themes that emerged in the qualitative study.

3.4.11 Integration of Data

Integration refers to the stages in the research process where the quantitative and qualitative methods are integrated or mixed (Creswell & Creswell, 2014; Tashakkori et al., 1998). In the mixed-methods sequential design, the integration might occur at the selection of the participants to be followed up in the qualitative phase, in the development of qualitative data collection protocol, and discussion of the results (Ivankova et al., 2006). In this study, the integration between both phases occurred at the intermediate stage where the preliminary results of the quantitative phase guide the data collection in the qualitative phase. The results helped in developing the qualitative data collection protocol. Another connecting point was the results, where results for both phases were integrated during the discussion of the outcomes of the study to answer the research question and give a deeper meaning to the study findings.

3.5 Conclusion of Chapter 3

In summary, this chapter provides a detailed explanation of study methods. The methods were explained separately for the quantitative and qualitative phases. In the quantitative phase, a cross-sectional design was used. The study was conducted in 11 schools in Selangor using self-administered questionnaires, which had been validated and piloted. A total of 758 students were included in the first phase. In the second phase, data was collected through an in-depth interview to explore significant factors found in the quantitative phase, that is, the help-seeking behaviour and the barriers to seek help for mental health problems among adolescents with abnormal DASS findings. The integration of both phases occurred when the quantitative phase was used to inform the criteria of participants to be selected for the qualitative phase, and to guide the development of the interview protocol. A total of 22 participants were interviewed in the second phase. The purpose of this sequential method design was also to have part of the quantitative findings explained by data from the qualitative phase. Due to human resource constraints, the sequential explanatory strategies of mixed-method were the most practical approaches for this study. It is more manageable by dividing the tasks into the quantitative phase followed by the qualitative phase (Creswell & Creswell, 2014).

CHAPTER 4: RESULTS

4.1 Introduction

This chapter provides the results obtained from the quantitative and qualitative phases. The chapter begins with results from phase 1 which identify the factors related to adolescents' mental services utilisation in the conceptual framework based on Andersen's Behavioural Model of Health Services Utilisation. Following these, results of phase 2 are presented as narratives and synthesised as mixed-methods results.

4.2 Quantitative Findings:

4.2.1 Study Characteristics

A total of 932 Form Six students were approached in 11 randomly selected secondary schools with Form Six courses in Selangor, Malaysia. Of these, a total of 771 students participated in this study, giving a response rate of 83%. The surveyed data was entered into the IBM SPSS version 24. Data cleaning and examination resulted in 758 participants included in the analyses. Twelve participants were excluded due to missing data and one was more than 19 years old. The number of 758 participants exceeded the minimum required sample size for this study. The characteristics of the study population are shown in Table 4.1.

The overall mean age of the participants was 18.24 years (SD= 0.43), of whom 72.7% (n=551) were females, and 27.3% (n=207) were males. As expected, Malay was predominant ethnic group (80.9%, n=613), followed by Indian (9.8%, n=74), Chinese (5.1%, n = 39) and others (4.2%, n = 32). The average family size was M= 4.29 (SD=1.81). More than half (63.5%, n=481) of the participants have a family size of equal or more than four and the remaining 36.4% (n=276) of participants have a family size of less than four.

The majority of participants reported living with both parents (83.4%, n=632). In terms of parents' marital status, 87.6% reported that their parents were married. Over 20% of adolescents came from families with a household income of RM1,000 to RM4,999. Almost 50% of the participants reported that both of their parents were educated up to secondary school. Most of the participants (77.8%, n=590) reported not having any family history of mental illness. Meanwhile, 18.1% (n=137) of them did not know about having a family history of mental illness while less than 5 % reported having a family history of mental illness.

Table 4.1: Sociodemographic Characteristics of Study Population

Characteristics	Complex Samples Estimated Population N=6401 Mean (SE) or n (%)	Unweighted Sample N= 758 Mean (SD) or n (%)
Age	18.25(0.02)	18.24 (0.43)
18	4777 (74.6)	577 (76.1)
19	1624 (25.4)	181 (23.9)
Gender		
Male	1721 (26.9)	207 (27.3)
Female	4680 (73.1)	551 (72.7)
Race		
Malay	5195 (81.2)	613 (80.9)
Chinese	304 (4.8)	39 (5.1)
Indian	622 (9.7)	74 (9.8)
Others	280 (4.4)	32 (4.2)
Family size		
Less than 4	2310 (36.1)	276 (36.4)
Equal or more than 4	4083 (63.9)	481 (63.5)
Family history of mental illness		
None	4985 (77.9)	590 (77.8)
Yes	279 (4.4)	31 (4.1)
Don't know	1137 (17.8)	137 (18.1)

Table 4.1, continued

Characteristics	Complex Samples	Unweighted
	Estimated Population N=6401 n (%)	Sample N= 758 n (%)
Family Structure		
Parents	5570 (87.5)	632 (83.4)
Father only	82 (1.3)	10 (1.3)
Mother only	353 (5.5)	43 (5.7)
Others (auntie, grandparents, guardian, hostel)	362 (5.7)	45 (5.9)
Parent's Marital Status		
Single mother/father	336 (5.3)	40 (5.3)
Married	5619 (88.1)	664 (87.6)
Widow/widower	67 (1.0)	8 (1.1)
Divorced or separated	242 (3.8)	30 (4.0)
Remarried	53 (0.8)	6 (0.8)
Not reported	53 (0.8)	6 (0.8)
Household income		
RM499-999	467 (7.4)	56 (7.4)
RM1000-1999	1924 (30.6)	231 (30.5)
RM2000-2999	1501 (23.8)	171 (22.6)
RM3000-4999	1369 (21.7)	165 (21.8)
RM5000 and above	1035 (16.4)	123 (16.2)
Father's education level		
Primary school	630 (10.0)	74 (9.8)
Secondary school	3185 (50.5)	377 (49.7)
Higher education	2105 (33.3)	249 (32.8)
Non-formal/Others	173 (2.7)	20 (2.6)
No education	30 (0.5)	3 (0.4)
Not applicable	197 (3.1)	25 (3.3)
Mother's education level		
Primary school	652 (10.3)	75 (9.9)
Secondary school	3410 (54.0)	403 (53.2)
Higher education	1995 (31.6)	240 (31.7)
Non-formal/Others	119 (1.9)	13 (1.7)
No education	120 (1.9)	14 (1.9)
Not applicable	24 (0.4)	3 (0.4)

A small percentage (3.7%) of respondents did not know their father's occupation. Over 50% reported that their mothers were unemployed. However, for the working mothers, the majority were professionals (Table 4.2).

Table 4.2: Education and Occupation of Adolescents' Parents

Characteristics	Complex Samples	Unweighted
	Estimated Population N=6401 n (%)	Sample N= 758 n (%)
Father's Occupation		
Managers	119 (1.9)	15 (2.0)
Professionals	750 (11.8)	91 (12.0)
Technicians & associate professional	766 (12.0)	88 (11.6)
Clerical support workers	352 (5.5)	41 (5.4)
Services and sales workers	861 (13.5)	100 (13.2)
Skilled agricultural, forestry & fishery workers	-	-
Craft& related trades workers	218 (3.4)	26 (3.4)
Plant & machine operators and assembles	919 (14.4)	112 (14.8)
Elementary occupations	524 (8.2)	63 (8.3)
Armed forces occupations	9 (0.1)	1 (0.1)
Retired	481 (7.5)	56 (7.4)
Self-employed	533 (8.4)	63 (8.3)
Unemployed	264 (4.1)	30 (4.0)
Do not know	243 (4.1)	28 (3.7)
Not applicable	332 (5.2)	40 (5.3)

Table 4.2, continued

Characteristics	Complex Samples	Unweighted
	Estimated Population N=6401 n (%)	Sample N= 758 n (%)
Mother's Occupation		
Managers	74 (1.2)	9 (1.2)
Professionals	979 (15.3)	118 (15.6)
Technicians & associate professional	190 (3.0)	22 (2.9)
Clerical support workers	406 (6.4)	48 (6.3)
Services and sales workers	364 (5.7)	44 (5.8)
Skilled agricultural, forestry & fishery workers	8 (0.1)	1 (0.1)
Craft& related trades workers	53 (0.8)	7 (0.9)
Plant & machine operators and assembles	31 (0.5)	4 (0.5)
Elementary occupations	175 (2.7)	20 (2.6)
Armed forces occupations	-	-
Retired	85 (1.3)	11 (1.5)
Housewife	415 (6.5)	53 (7.0)
Self-employed	56 (0.9)	7 (0.9)
Unemployed	3418 (53.5)	450 (59.4)
Do not know	93 (1.5)	10 (1.3)
Not applicable	40 (0.6)	5 (0.7)

4.2.2 Help-seeking Behaviour

4.2.2.1 Mental health services utilisation

Table 4.3 presents the distribution of mental health services utilisation by gender. Almost half of the adolescents (49.5%, n=375) sought help only from informal services, of whom 50.7% were males and 49% were females. On the other hand, 1.1% sought help only from formal services and 2.6% sought help from both, formal and informal services. There was no difference between male and female in terms of services utilisation (p-value 0.23).

Table 4.3: Frequencies and Percentage of the Mental Health Services Utilisation by Adolescents' Gender

Mental health services	N=758 n (%)	Male, n=207 n(%)	Female, n=551 n(%)
Formal only	8 (1.1)	3 (1.4)	5 (0.9)
Informal only	375 (49.5)	105 (50.7)	270 (49.0)
Both (formal and informal)	20 (2.6)	9 (4.3)	11 (2.0)
None	355 (46.8)	90 (43.5)	265 (48.1)

Chi-square 4.347, df= 3, p-value= 0.23

Table 4.4 shows the distribution of mental health services utilisation according to ethnicity. The majority of the participants regardless of their ethnicity sought help from informal mental health services only. About 2.4% and 6.8% of Malay and Indians respectively sought help from formal and informal services. About 0.7% of Malay and 5.4% of Indian sought formal help only. However, none of the Chinese and other ethnicity sought help from formal mental health services.

Table 4.4: Frequencies and Percentages of the Mental Health Services Utilisation by Ethnicity

Mental health services	Malay n=613 n (%)	Chinese n=39 n (%)	Indian n=74 n (%)	Others n=32 n (%)
Formal only	4 (0.7)	-	4 (5.4)	-
Informal only	308 (50.2)	16 (41.0)	29 (39.2)	22 (68.8)
Both (formal & informal)	15 (2.4)	-	5 (6.8)	-
None	286 (46.7)	23 (59)	36 (48.6)	10 (31.3)

Chi-square: 29.24, df=9, p value= <0.01

Figure 4.1 illustrates the number of participants who sought formal mental health services which included those who sought help from formal only and both formal and informal services. A total of 28 participants (3.7%) had access to formal mental health services. Of these 67.9% (n=19) were Malay and 32.1% (n=9) were Indian.

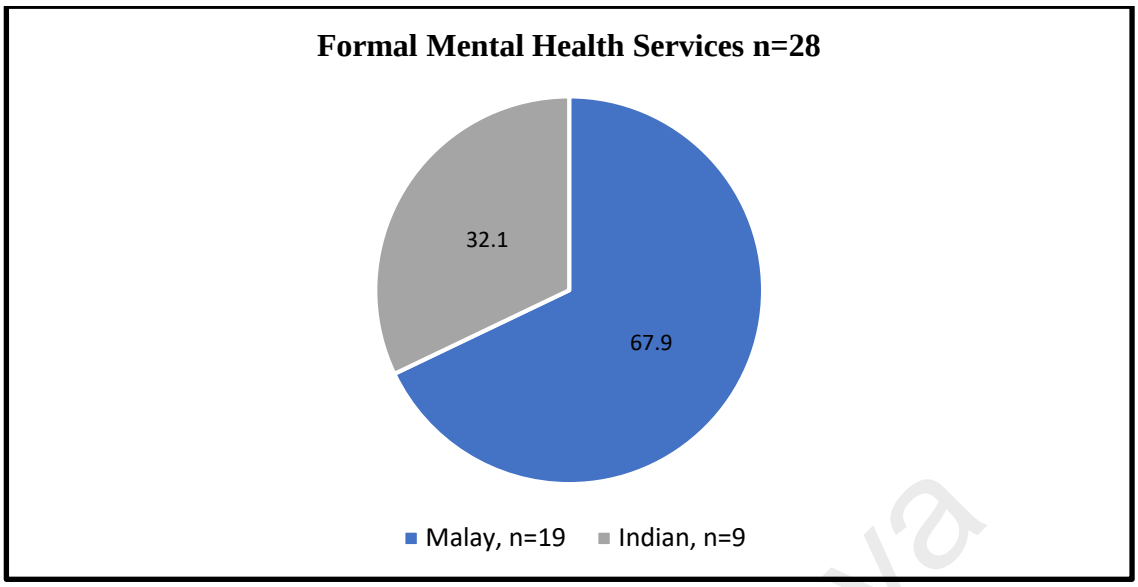

Figure 4.1: Distribution of Formal Mental Health Services Utilisation by Ethnicity

Mental health services utilisation was then categorised into those who sought help from any services which are formal and informal services and those who did not seek help for their mental health problems. A total of 53.2% (n=403) of participants sought help for their mental health problems. While 46.8% (n=355) did not seek help from the mental health services for their mental health problems. This result is shown in Table 4.5.

Table 4.5: Distribution of Adolescents Who Sought Help from Any of Mental Health Services

Mental Health Services	**N=758** **N (%)**
Sought help from any of the service	403 (53.2)
Did not seek help	355 (46.8)

Table 4.6 shows that among adolescents who sought help from any mental health services, 96% of them also sought help from informal sources such as friends, parents, siblings, relatives and internet chats. While those who did not seek help from any of the mental health services, 85.9% (n=305) of adolescents sought help from informal sources. Of those who sought help from any of the mental health services, a very small number

did not seek help from informal sources (n=16, 4%). There was a significant association between seeking help from informal sources and seeking help from any of the services for mental health problems (p-value <0.001).

Table 4.6: Frequencies and Percentage of Mental Health Service Utilisation by Informal Sources of Help

Mental health service	Informal sources of help	
	Sought help n (%)	Did not seek help n (%)
Sought help (n=403)	387 (96.0)	16 (4.0)
Did not seek help (n=355)	305 (85.9)	50 (14.1)

Chi-square 24.29, df=1, p-value <0.001

4.2.2.2 Formal mental health services

Regarding formal mental health services, multiple response analysis revealed that government general hospital (46.4%) was the most common health facility used in seeking help for mental health problems, followed by health clinic (39.3%), private clinic (39.3%) and private hospital (25%). The majority of the participants met counsellor or social worker (40.7%), psychologist (22.2%), psychiatrist (22.2%) and family medicine specialist (22.2%). Few met paramedics (11.1%) and medical officers (7.4%). The results are shown in Table 4.7.

Table 4.7:Distribution of Types of Facilities Utilised and Types of Professionals

Characteristics	N (%)
Type of facilities	
Health clinic	11 (39.3)
Private clinic	11 (39.3)
Psychiatric specialist clinic	3 (10.7)
Psychiatric Hospital	2 (7.1)
Government general hospital	13 (46.4)
Private hospital	7 (25.0)
Professional	
Psychiatrist	6 (22.2)
Psychologist	6 (22.2)
Counsellor/ social worker	11(40.7)
Occupational therapist	1 (3.7)
Family Medicine Specialist	6 (22.2)
Medical Officer	2 (7.4)
Paramedic (Nurse/ Medical assistant)	3 (11.1)
Don't know	3 (11.1)

Note: Respondents were allowed to give more than one answer

Participants were also asked about the time taken and distances from their house to the mentioned facilities. About 35 minutes (Mean) (SD=0:33) and 29.65 KM (Mean) (SD=76.72) was taken to go to mentioned facilities. Maximum distance 400 KM is due to one adolescent sought help outside Selangor, this is Johor (Table 4.8).

Table 4.8: Mean and SD of Time Taken and Distance to The Formal Facilities

Characteristics	Mean (SD)N (%)	Minimum	Maximum
Time taken *(in Hour and min)*	0:35 (0:33)	0:15	2:30
Distances *(in KM)*	29.65 (76.72)	1	400

4.2.2.3 Informal mental health services

Table 4.9 shows the distribution of the informal mental health services utilised by adolescents for the past 12-months. It revealed that school teachers were the most common informal services followed by websites (22.8%) and religious people (13.5%). Only 11% sought help from the school counsellor. The least common sources of informal services were NGOs and helpline/hotline counselling.

Table 4.9: Multiple Response Analysis of Informal Mental Health Services for the Past 12-months

Informal mental health services	N (%)
Website	172 (22.8)
Helpline/ Hotline counselling	5 (0.7)
Religious people	102 (13.5)
School counsellor	83 (11.0)
School teacher	248 (32.9)
NGOs	8 (1.1)
None	46 (6.1)

Note: Respondents were allowed to give more than one answer

4.2.2.4 Informal sources of help

Adolescents were likely to seek help from informal sources of help such as friends, parents, siblings, relatives and internet chat. As shown in Table 4.10, the majority of the adolescents sought help from friends and family, 79.9% and 69.2% respectively. Some adolescents also reported using internet chat as their source of help when facing mental health problems.

Table 4.10: Multiple Response Analysis of Informal Sources of Help for Mental Health Problems

Resources	N (%)
Parents	521 (69.2)
Friends	602 (79.9)
Siblings	311 (41.3)
Relatives	142 (18.9)
Internet chat (Facebook, Twitter, WhatsApp's, WeChat, Instagram, etc.)	271 (36.0)

Respondents were allowed to give more than one answer

4.2.3 Descriptive Findings of The Factors Related to Mental Health Services Utilisation

In this section, factors related to mental health services utilisation are described and presented according to the Andersen's Behavioural Model of Healthcare Services Utilisation: predisposing factors, enabling factors and need factors.

4.2.3.1 Descriptive findings of the predisposing factors

Descriptive findings for predisposing such as sociodemographic were explained earlier. In addition, there were four variables studied under belief, namely stigmatisation by others, attitudes towards professional help-seeking, mental health literacy, and help-seeking preference.

(a) ***Stigma by others***

Table 4.11 shows the mean score for the stigma by gender and ethnic group. There was no difference in mean of stigmatisation by others score between male and female; mean difference=0.05 and standardised difference, t =0.14, 95% CI was -0.64, 0.74. The ethnic group showed a significant difference in mean of stigmatisation by others score; mean square=103.29, F=5.66 and p-value=0.001. Post Hoc Analysis using Bonferroni revealed that the significant mean difference was between Malay and Chinese with a significance level of 0.01.

Table 4.11: Description of Stigmatisation by Others Score by Gender and Ethnic Group

Stigma	N	Mean	SD	Median/95 %CI	P value
Total score	758	13.39	4.33	13.00	
Gender					
Male	207	13.43	4.18	-0.64, 0.74	0.89*
Female	551	13.38	4.38		
Race/Ethnicity					
Malay	613	13.68	4.26	13.34, 14.02	0.01†
Chinese	39	11.46	4.04	10.15, 12.77	
Indian	74	12.74	4.83	11.62, 13.86	
Other	32	11.78	3.62	10.48, 13.09	

*Note: * Independent t-test and † one-way ANOVA*
**Levene statistics was 0.46, which is more than 0.05. The test homogeneity of variances was met.*
†Levene statistics was 0.26, which is more than 0.05. The test homogeneity of variances was met.

(b) ***Attitudes towards seeking professional help***

Table 4.12 shows that there was no difference in attitudes towards seeking professional help score between male and female (p-value 0.76). However, both genders showed low attitudes towards seeking professional help for their mental health problems.

Table 4.12: Distribution of the Attitudes by Gender

Attitudes	N (%)	Gender N (%)		P value
	Overall N = 758	Male N=207	Female N=551	
Low (0-49)	602 (79.4)	165 (79.7)	437 (79.3)	0.76
Medium (50-63)	145 (19.1)	38 (18.4)	107 (19.4)	
High (64-87)	11 (1.5)	4 (1.9)	7 (1.3)	

Chi-square test

(c) Mental health literacy

i General Knowledge About Depression

The majority of the participants had heard about depression. A very small number (0.7%) reported that they never heard about depression especially male participants. More than 50% of them had heard about depression from television. Half of the participants reported that they had experienced depression. The rest of the distribution is more or less the same for both genders. The results are presented in Table 4.13.

Table 4.13: General Knowledge About Depression by Gender

Variables	Complex Samples			Unweighted		
	Overall n=6401 N (%)	Male n=207 N (%)	Female n=551 N (%)	Overall n=758 N (%)	Male n=207 N (%)	Female n=551 N (%)
Heard of depression						
Yes	6258 (97.8)	1677 (97.4)	4581 (97.9)	741 (97.8)	202 (97.6)	539 (97.8)
No	99 (1.5)	7 (0.4)	91 (2.0)	12 (1.6)	1 (0.5)	11 (2.0)
Don't know	44 (0.7)	36 (2.1)	8 (0.2)	5 (0.7)	4 (1.9)	1 (0.2)
Sources of information						
Television	3323 (52.0)	915 (53.4)	2408 (51.5)	392 (51.7)	111 (53.6)	281 (51.0)
Newspaper	694 (10.9)	201 (11.8)	493 (10.6)	81 (10.7)	23 (11.1)	58 (10.5)
Friends	620 (9.7)	159 (9.3)	461 (9.9)	75 (9.9)	20 (9.7)	55 (10.0)
Family	246 (3.8)	63 (3.7)	183 (3.9)	29 (3.8)	8 (3.9)	21 (3.8)
Parents	204 (3.2)	7 (0.4)	197 (4.2)	26 (3.4)	1 (0.5)	25 (4.5)
Personal experience	449 (7.0)	90 (5.3)	360 (7.7)	51 (6.7)	10 (4.8)	41 (7.4)
Teacher	609 (9.5)	167 (9.7)	442 (9.5)	73 (9.6)	20 (9.7)	53 (9.6)
Others	240 (3.8)	111 (6.5)	129 (2.8)	29 (3.8)	13 (6.3)	16 (2.9)
Self-reported experience of depression						
Yes	3293 (51.5)	914 (53.1)	2378 (50.9)	382 (50.4)	110 (53.1)	272 (49.4)
Never	2269 (35.5)	566 (32.9)	1704 (36.5)	276 (36.4)	69 (33.3)	207 (37.6)
Do not want to disclosed	831 (13.0)	241 (14.0)	590 (12.6)	99 (13.1)	28 (13.5)	71 (12.9)

ii Perception of Causes of Depression

Table 4.14 shows that the majority of the participants believed that failure in achievement (81.7%), death of loved ones (71.2), examination (65.2%), home or family disharmony (56.2%) and relationship breakup (50.0%) were the main causes of depression. Meanwhile, they were less likely to believe that depression can occur automatically (22.6%), followed by a chemical imbalance in the brain (15.6%). A very small number of participants reported that they did not know the cause of depression. Both genders showed a similar trend in multiple response analysis.

Table 4.14: Adolescent's Perception of Causes of Depression

Causes of depression	N =758 N (%)	Male n=207	Female n=551
Failure in achievement	619 (81.7)	176 (85.0)	443 (80.4)
Examination	494 (65.2)	138 (66.7)	356 (64.6)
Chemical imbalance in the brain	118 (15.6)	35 (16.9)	83 (15.1)
Death of loved ones	540 (71.2)	150 (72.5)	390 (70.8)
Home/ family disharmony	426 (56.2)	112 (54.1)	314 (57.0)
Relationship break up	379 (50.0)	130 (62.8)	249 (45.2)
Occurring automatically	171 (22.6)	37 (17.9)	134 (24.3)
Don't know	29 (3.8)	5 (17.9)	24 (4.4)

Multiple responses recorded. Percentages represent proportions of respondents.

iii Recognition of the Symptoms of Depression by the Adolescents

In terms of recognition of the symptoms of depression, both male and female participants showed a similar trend. Sad or bad mood was the main recognised symptoms (87.6%) followed by a change in behaviour (69.9%), suicidal or self-harming thoughts (65.6%) and sleep disorder (50.8). Only 11.9% of participants recognised sexual dysfunction or loss of sexual desire as symptoms of depression. The results are presented in Table 4.15.

Table 4.15: Adolescents' Recognition of The Symptoms of Depression

Symptoms	N=758 N(%)	Male n=207	Female n=551
Sad or bad mood	664 (87.6)	175 (84.5)	489 (88.7)
Loss of appetite or over eating	366 (48.3)	96 (46.4)	270 (49.0)
Lack of interest in routine activities	302 (39.8)	84 (40.6)	218 (39.6)
Suicidal or self-harming thoughts	497 (65.6)	128(61.8)	369 (67.0)
Fatigue and exhaustion	194 (25.6)	55 (26.6)	139 (25.2)
Sleep disorder	385 (50.8)	112 (54.1)	273 (49.5)
Lack of energy	351 (46.3)	100 (48.3)	251 (45.6)
Sexual dysfunction or loss of sexual desire	90 (11.9)	38 (18.4)	52 (9.4)
Change in behaviour	530 (69.9)	139 (67.1)	391 (71.0)
Don't know	12 (1.6)	4 (1.9)	8 (1.5)

Multiple responses recorded. Percentages represent proportions of respondents.

iv Knowledge on Medications for Treating Depression

Participants believed that the main treatment for depression was antidepressants. However, some of them still believed that vitamins, herbs and nerve tonic could help in treating depression. The detail of it provides in Table 4.16.

Table 4.16: Adolescents' Knowledge of Medications for Treating Depression

Medications	N=611 (%)
Antidepressants	316 (43.5)
Vitamins	286 (39.4)
Antipsychotics	70 (9.6)
Tranquilisers	297 (40.9)
Sleeping pills	251 (34.6)
Nerve tonic	25 (3.4)
Herbs	262 (36.1)
Alternative medicine	92 (12.7)

Multiple responses recorded. Percentages represent proportions of respondents.

v Beliefs in Prevention Measures for Depression

More than 50% of participants believed that being physically active, maintaining a good social life, avoiding stressful situations and avoiding alcohol, smoking and drug abuse can prevent a person from getting depression (Table 4.17).

Table 4.17: Adolescents' Beliefs in Preventive Measures for Depression

Prevention	N (%)
Keeping physically active	588 (77.7)
By maintaining a good social life	617 (81.5)
By avoiding stressful situations	523 (69.1)
By avoiding alcohol, smoking and drug abuse	389 (51.4)

Multiple responses recorded. Percentages represent proportions of respondents.

(d) ***Help-seeking Preference***

Table 4.18 shows the help-seeking preference among adolescents. As expected, the majority of them are more likely to seek help from family and friends, 48% and 38.5% respectively. The participants reported that they were less likely to seek help from counsellors and teachers with 1.1% saying yes. There was no difference in help-seeking preference among males and females in this regard. However, 17.4% of males did not seek help from anyone for their mental health problems compared to females with 10.2%.

Table 4.18: Adolescent's help-seeking Preference by Gender

Help-seeking preference	N=758 N (%)	Male, n=207 N (%)	Female, n=551 N (%)
Friends	292 (38.5)	78 (37.7)	214 (38.8)
Family	364 (48.0)	88 (42.5)	276 (50.1)
Counsellor / Teacher	8 (1.1)	5 (2.4)	3 (0.5)
Others	2 (0.3)	-	2 (0.4)
None	92 (12.1)	36 (17.4)	56 (10.2)

4.2.3.2 Descriptive findings of the enabling factors

(a) ***Awareness of the resources***

In terms of awareness of available resources, 72.8% of the participants were aware that the school counsellor was the main resource of help followed by government health clinic 33.9%, psychiatric clinic 30.9%, private psychiatric or psychology hospital 27.7% and government general hospital 27.6%. Meanwhile, only 4.1% were aware of the availability of the LPPKN Teen Adolescent Centre and 9.5% of the helpline or hotline (Table 4.19).

Table 4.19: Awareness of Available Resources

Resources	N (%)
1) School counsellor	551 (72.8)
2) Government health clinic	257 (33.9)
3) Psychiatric clinic	234 (30.9)
4) Private psychiatric or psychology	210 (27.7)
5) Government general hospital	209 (27.6)
6) Private clinic	136 (18.0)
7) Private hospital	134 (17.7)
8) NGO	101 (13.3)
9) Online counselling	93 (12.3)
10) Helpline or hotline	72 (9.5)
11) LPPKN Teen Adolescent Centre	31 (4.1)

Multiple responses recorded. Percentages represent proportions of respondents.

(b) ***Social support***

Table 4.20 shows that the majority of the participants had high social support across the subscales and a small percentage of the participants had low social support. There was no difference between male and female in terms of social support. The overall score for social support is (χ= 0.42 (2), p-value=0.81), family support (χ= 1.75 (2), p-value=0.42, friends support (χ= 0.45, p-value= 0.80, and significant others support (χ= 1.04, p-value= 0.60).

Table 4.20: Distribution of Adolescents' Social Support by Gender

Social support	N (%) N=758	Male n=207	Female n=551	P-value
Total score				0.81
• Low (1-2.9)	16 (2.1)	4 (1.9)	12 (2.2)	
• Moderate (3-5)	280 (36.9)	73 (35.3)	207 (37.6)	
• High (5.1-7)	462 (60.9)	130 (62.8)	332 (60.3)	
By subscales				
Family support				0.42
• Low (1-2.9)	49 (6.5)	10 (4.8)	39 (7.1)	
• Moderate (3-5)	252 (33.2)	74 (35.7)	178 (32.2)	
• High (5.1-7)	457 (60.3)	123 (59.4)	334 (60.6)	
Friends support				0.80
• Low (1-2.9)	22 (2.9	6 (2.9)	16 (2.9)	
• Moderate (3-5)	348 (45.9)	91 (44.0)	257 (46.6)	
• High (5.1-7)	388 (51.2)	110 (53.1)	278 (50.5)	
•				
Significant others				0.59
• Low (1-2.9)	43 (5.7)	9 (4.3)	34 (6.2)	
• Moderate (3-5)	282 (37.2)	80 (38.6)	282 (37.2)	
• High (5.1-7)	433 (57.1)	118 (57.0)	433 (57.1)	
•				

Chi-square test

4.2.3.3 Descriptive findings of the need factors

*(a) **Mental Health Status***

The three variables in need factors are perceived need for help, perceived general health and mental health status using the depression, anxiety and stress severity score (DASS). In general, participants had good and moderate perceived general health with 41.6% and 34.7% respectively. A small number of participants perceived they had bad general health (1.3%, n=10). Regarding mental health status, majority of the participants had normal to moderate depression, anxiety and stress severity score. In comparison to these three categories of mental health problem, anxiety scored the highest for severe and extremely severe severity score, 14.6% and 18.1% compared to depression and stress.

Table 4.21: Frequencies and Percentage of Perceived General Health and Mental Health Status

Variables	Complex Samples N=6401	Unweighted N=758
	Estimate n (%)	n (%)
Perceived general health		
Very good	688 (10.8)	84. (11.1)
Good	2682 (42.3)	315 (41.6)
Moderate	2235 (35.2)	263 (34.7)
Not good	666 (10.5)	80 (10.6)
Very bad	75 (1.2)	10 (1.3)
Depression		
Normal	2930 (45.8)	346 (45.6)
Mild	1294 (20.2)	155 (20.4)
Moderate	1419 (22.2)	168 (22.2)
Severe	386 (6.0)	46 (5.1)
Extremely severe	371 (5.8)	43 (5.7)
Anxiety		
Normal	1705 (26.6)	209 (27.6)
Mild	611 (9.5)	72 (9.5)
Moderate	1976 (30.9)	229 (30.2)
Severe	937 (14.6)	111 (14.6)
Extremely severe	1172 (18.3)	137 (18.1)
Stress		
Normal	3401 (53.1)	405 (53.4)
Mild	1096 (17.1)	126 (16.6)
Moderate	983 (15.4)	120 (15.8)
Severe	685 (10.7)	79 (10.4)
Extremely severe	235 (3.7)	28 (3.7)

(b) ***Abnormal DASS***

Severe and extremely severe score for depression or anxiety or stress were classified as abnormal DASS. Participants with abnormal depression, anxiety and stress scores were asked about their utilisation of mental health services. Table 4.22 shows that among participants with an apparent abnormal DASS score, 59.2% sought help from any service

in the past 12 months, while 40.8% did not seek help from any services. Surprisingly, 49.7% of participants without abnormal DASS score also sought help.

Table 4.22: Distribution of Participants with Abnormal DASS and Help-seeking from Any of the Mental Health Service

Abnormal DASS	Mental Health Services	
	Sought help from any of the service	Did not seek help
Yes	164 (59.2)	113 (40.8)
No	239 (49.7)	242 (50.3)

Note: Abnormal DASS: If a participant had at least one severe or an extremely severe score of depression or anxiety or stress

Table 4.23 shows that of those who sought help from any services, only 6.9% sought formal mental health services while 91.7% of the adolescents with abnormal DASS score also sought help from informal sources such as friends, family and relatives. Among those who did not seek mental health services n=335 (46.8%), more than half have normal DASS score.

Table 4.23: Distribution of Participants with Abnormal DASS and Help-seeking from Formal Mental Health Services and Informal Sources of Help

Help-seeking	Abnormal DASS	
	Yes n=277 N (%)	No n=481 N (%)
Mental health services		
Formal	19 (6.9)	9 (1.8)
Informal	145 (52.3)	230 (47.8)
None	113 (40.8)	242 (50.3)
Informal sources of help		
Yes	254 (91.7)	438 (91.1)
No	23 (8.3)	43 (8.9)

(c) ***Perceived need for help***

Concerning perceived need for help, 47.8% of the participants reported they needed help for their mental health problems. While 16.4% did not know whether they needed help or not (Table 4.24).

Among those who sought help from mental health services, 53.6% perceived the need for help, while 46.4% used mental health services without a perceived need for help. About 41.1% who did not seek help form mental health services also perceived the need for help (Figure 4.2).

Table 4.24: Frequencies and Percentage of Perceived Need for Help

Perceived Need for Help	Complex Samples, N=6401	Unweighted, N=758
	N (%)	N (%)
Yes	3020 (47.2)	362 (47.8)
No	2311 (36.1)	272 (35.9)
Don't know	1070 (16.7)	124 (16.4)

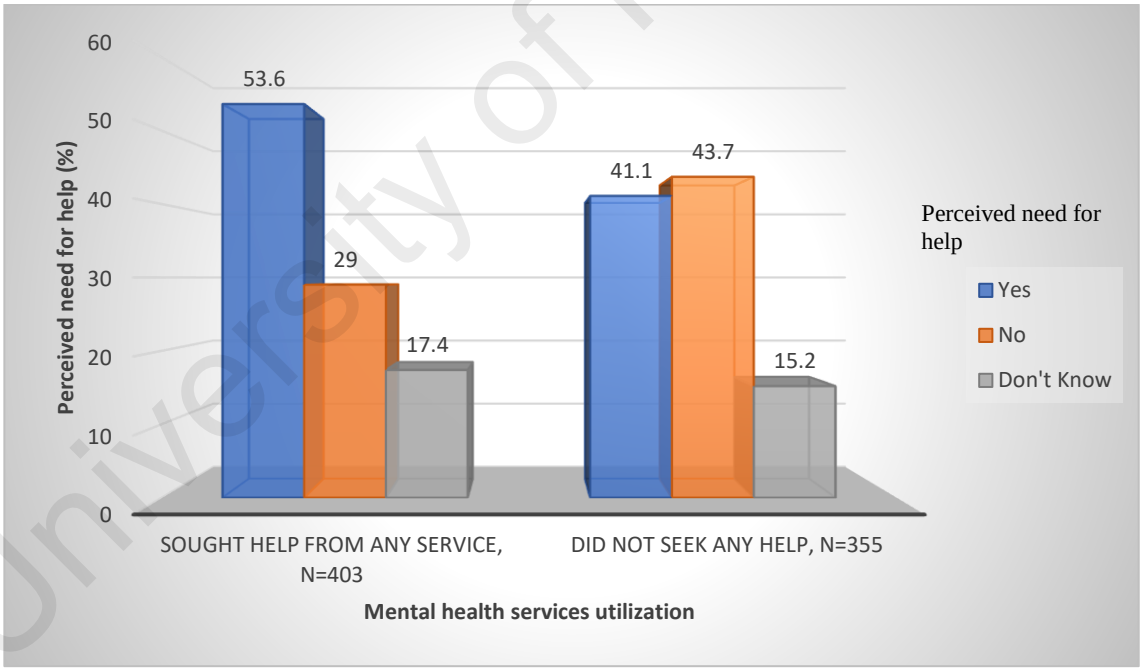

Figure 4.2: Distribution of Mental Health Services Utilization by Perceived Need for Help

In terms of mental health status, there was a significant association between DASS score and perceived need for help, with a p-value of <0.001. The majority of participants with mild to extremely severe scores perceived the need for help, while the majority of

participants who did not perceive any help were participants with normal and mild score (Table 4.25).

Table 4.25: Distribution of Mental Health Status by Perceived Need for Help

Variables	Perceived Need			X (df) P-value
	Yes n=362	No n=272	Don't Know n=124	
Depression				83.59(8)
Normal	126 (36.4)	174 (50.3)	46 (13.3)	<0.001
Mild	72 (46.5)	47 (30.3)	36 (23.2)	
Moderate	93 (55.4)	44 (26.2)	31 (18.5)	
Severe	36 (78.3)	4 (8.7)	6 (13.0)	
Extremely severe	35 (81.4)	3 (7.0)	5 (11.6)	
Anxiety				52.41(8)
Normal	76 (36.4)	102 (48.8)	31 (14.8)	<0.001
Mild	23 (34.4)	38 (52.8)	11 (15.3)	
Moderate	112 (48.9)	80 (34.9)	37 (16.2)	
Severe	62 (55.9)	26 (23.4)	23 (20.7)	
Extremely severe	89 (65.0)	26 (19.0)	22 (16.1)	
Stress				69.93(8)
Normal	144 (35.6)	192 (47.4)	69 (17.0)	<0.001
Mild	66 (52.4)	37 (29.4)	23 (18.3)	
Moderate	77 (64.2)	26 (21.7)	17 (14.2)	
Severe	52 (65.8)	14 (17.7)	13 (16.5)	
Extremely severe	23 (87.6)	3 (10.7)	2 (7.1)	

Chi-square test

4.2.4 Univariate Analyses of Mental Health Services Utilisation

This section provides the findings for objectives 2, 3 and 4. The univariate analyses were summarised according to the Andersen's Behavioural Model for Healthcare Utilisation: predisposing factors, enabling factors and need factors. All the logistics regression analyses were adjusted with sampling weights.

4.2.4.1 Univariate analyses between predisposing factors and mental health services utilisation.

Table 4.26 shows the association between predisposing factors and mental health service utilisation. There were four factors significantly associated with mental health

services utilisation in univariate analyses namely family size (≥4), mother's occupational status, self-reported experience of depression, and knowledge about symptoms of depression.

Family size is related to the utilisation of mental health services. The proportion of adolescents who sought help from any services were higher among those who had equal or more than four siblings than adolescents who had less than four siblings. Those who had a number of siblings equal to or more than four were 1.41 times more likely to seek help from any services for their mental health problems (crude OR=1.41, 95%CI= 1.04, 1.91). The analysis also revealed that participants who did not know their mother's occupational had 72% lower odds of seeking help from mental health services (crude OR=0.28, 95% CI= 1.04, 1.91).

Knowledge of symptoms of depression was significantly associated with mental health service utilisation; adolescents with excellent/ very good/ good knowledge were more likely to seek help from any services for their mental health problems than adolescents with poor/ very poor knowledge (crude OR=2.38, 95% CI = 1.52, 3.75).

Self-reported experience of depression was significantly associated with help-seeking from mental health services (crude OR=1.68, 95% CI 1.22, 2.31). The proportion of adolescents who sought help from any services were higher among adolescents who reported experience of depression compared to those who had no experience of depression.

Some variables had higher odds of seeking help from mental health services namely adolescents with family history of mental disorder, parents with non-formal, no education, a high degree of stigma, medium and high scores of attitudes towards seeking professional help, having general knowledge of depression, and family as help-seeking

preference. However, there univariate analyses did not show any statistically significant results.

Table 4.26: Univariate Analyses between Predisposing Factors and Mental Health Services Utilisation

Predisposing factors	Mental Health Services		Crude OR	95% CI	*P*
	Sought help from any services N=403	Did not seek help N=355			
	Mean (SD) or N (%)	Mean (SD) or n (%)			
Sociodemographic					
Age	18.24 (0.42)	18.29 (0.46)	0.87	0.61, 1.22	0.41
Gender					
Male	117 (56.5)	90 (43.5)	1.00 (Ref)	0.59,1.13	0.22
Female	286 (51.9)	265 (48.1)	0.82		
Race/Ethnicity					
Malay	327 (53.3)	286 (46.7)	1.00 (Ref)		
Chinese	16 (41.0)	23 (59.0)	0.62	0.32, 1.19	0.15
Indian	38 (51.4)	36 (48.6)	0.87	0.53, 1.42	0.57
Others	22 (68.7)	10 (31.3)	1.87	0.85, 4.13	0.12
Family structure					
Parents	345 (52.6)	311 (47.4)	0.63	0.25, 1.32	0.16
Father/ mother only	26 (49.1)	27 (50.9)	0.58	0.33, 1.19	0.19
Others	29 (64.4)	16 (35.6)	1.00 (Ref)		
Family size					
Less than 4	134 (48.6)	142 (51.4)	1.00 (Ref)		
Equal / more than 4	269 (55.9)	212 (44.1)	1.41	1.04,1.91	0.03*
Family history of mental disorder					
Yes	20 (64.5)	11 (35.5)	1.79	0.83, 3.86	0.14
No/ Don't know	383 (52.7)	344 (47.3)	1.00 (Ref)		

Note: Analyses were adjusted with sampling weights. *p-value <0.05

Table 4.26, continued

Predisposing factors	Mental Health Services		Crude OR	95% CI	*P*
	Sought help from any services N=403	Did not seek help N=355			
	Mean (SD) or N (%)	Mean (SD) or n (%)			
Parent's marital status					
Married/Remarried	623 (93.0)	47 (7.0)	1.00 (Ref)		
Single father/mother	38 (95.0)	2 (5.0)	0.78	0.41, 1.50	0.46
Widowed/Divorced/ separated/ Not reported/ Not applicable	44 (97.8)	1 (2.2)	0.70	0.38, 1.31	0.26
Father's educational level					
Higher education	132 (53.0)	117 (47.0)	1.00 (Ref)		
Secondary education	206 (54.6)	171 (45.4)	1.04	0.75, 1.44	0.83
Primary education	37 (50.0)	37 (50.0)	0.93	0.55, 1.58	0.79
Non-formal/No education/Not applicable	25 (52.1)	23 (47.9)	1.09	0.58, 2.05	0.78
Mother's educational level					
Higher education	137 (57.1)	103 (42.9)	1.00 (Ref)		
Secondary education	204 (50.6)	199 (49.4)	0.79	0.57, 1.09	0.15
Primary education	40 (53.3)	35 (46.7)	0.81	0.48, 1.38	0.44
Non-formal/No education/Not applicable	18 (60.0)	12 (40.0)	1.27	0.58, 2.81	0.55
Father's occupation					
Professionals	103 (52.8)	92 (47.2)	1.00 (Ref)		
Non-professional	190 (55.6)	152 (44.4)	1.12	0.78, 1.61	0.53
Retiree/ Self-employed/Unemployed	80 (53.7)	69 (46.3)	1.06	0.68, 1.64	0.81
Don't know/ Not applicable	29 (42.6)	39 (57.4)	0.64	0.36, 1.13	0.13
Mother's occupation					
Professionals	81 (54.4)	68 (45.6)	1.00 (Ref)		
Non-professional	63 (50.8)	61 (49.2)	0.82	0.50, 1.33	0.42
Retiree/ Self-employed/ Unemployed	227 (54.7)	188 (45.3)	0.97	0.66, 1.42	0.85
Housewife	28 (52.8)	25 (47.2)	0.88	0.47, 1.66	0.69
Don't know/ Not applicable	4 (26.7)	11 (73.3)	0.28	0.08, 0.94	0.04*

Note: Analyses were adjusted with sampling weights
*P-value <0.05

Table 4.26, continued

Predisposing factors	Mental Health Services: Sought help from any services N=403 Mean (SD) or N (%)	Mental Health Services: Did not seek help N=355 Mean (SD) or n (%)	Crude OR	95% CI	*P*
Belief					
Stigma					
Low degree	200 (51.8)	186 (48.2)	1.00 (Ref)		
High degree	203 (54.6)	169 (45.4)	1.08	0.81,1.45	0.60
Attitudes					
Low	317 (52.7)	285 (47.3)	1.00 (Ref)		
Medium	77 (53.1)	69 (46.9)	1.02	0.70, 1.47	0.93
High	9 (81.8)	2 (18.2)	4.01	0.85, 18.85	0.08
Mental health literacy					
General knowledge about depression					
Yes	395 (53.3)	346 (46.7)	1.59	0.60, 4.24	0.36
No/ Don't know	8 (47.1)	9 (52.9)	1.00 (Ref)		
Knowledge about symptoms					
Excellent/ very good/ good	211 (60.5)	138 (39.5)	2.38	1.52, 3.75	<0.001
Moderate	150 (49.7)	152 (50.3)	1.57	0.99, 2.48	0.05
Poor/ very poor	42 (39.3)	65 (60.7)	1.00 (Ref)		
Sources of info for first heard about depression					
Television	204 (52.0)	188 (48.0)	0.80	0.37, 1.75	0.58
Newspaper	44 (54.3)	37 (45.7)	0.81	0.34, 1.95	0.64
Friends	43 (57.3)	32 (42.7)	0.87	0.36, 2.11	0.76
Family	16 (55.2)	13 (44.8)	0.99	0.35, 2.88	0.99
Parents	13 (50.0)	13 (50.0)	0.73	0.25, 2.14	0.56
Personal experience	29 (56.9)	22 (43.1)	0.93	0.36, 2.41	0.89
Teacher	36 (49.3)	37 (50.7)	0.72	0.30, 1.76	0.47
Others	17 (58.6)	12 (41.4)	1.00 (Ref)		

Note: Analyses were adjusted with sampling weights
*P-value <0.05

Table 4.26, continued

Predisposing factors	Mental Health Services: Sought help from any services N=403 Mean (SD) or N (%)	Mental Health Services: Did not seek help N=355 Mean (SD) or n (%)	Crude OR	95% CI	*P*
Self-reported experience of depression					
No	126 (45.7)	150 (54.3)	1.00 (Ref)		
Yes	224 (58.6)	158 (41.4)	1.68	1.22, 2.31	<0.01
Do not want to disclose	53 (53.5)	46 (46.5)	1.35	0.84, 2.16	0.21
Help-seeking preference					
Family	202 (55.5)	162 (44.5)	1.33	0.83, 2.12	0.23
Friends & Others	157 (52.0)	145 (48.0)	1.16	0.72, 1.87	0.54
None	44 (47.8)	48 (52.2)	1.00 (Ref)		

Note: Analyses were adjusted with sampling weights
*P-value <0.05

4.2.4.2 Univariate analyses between enabling factors and mental health service utilisation.

Table 4.27 shows the univariate analyses of mental health services utilisation by enabling factors. One variable significantly associated with mental health service utilisation in univariate analyses was awareness of resources. Among adolescents who have sought help from any services, 54.5% were aware of the available resources for mental health problems and were two times more likely to seek help from any of the services compared to those who were unaware (Crude OR= 2.08, 95% CI= 1.19, 3.64). Besides, 62.7% of adolescents were not aware of the available resources for seeking help.

In terms of social support, those with greater support from friends and significant others had higher odds of seeking help from any services. However, this was not statistically significant. In contrast, adolescents who had moderate to high family support

were less likely to seek help from any services compared to adolescents who have low family support. However, that was also not statistically significant.

Table 4.27: Univariate Analysis of the Enabling Factors and Mental Health Services Utilisation

Enabling factors	Mental Health Services		Crude OR	95%CI	*P*
	Sought help from any services N=403	Did not seek help N=355			
	Mean (SD) or n (%)	**Mean (SD) or n (%)**			
Household income					
RM499 - 999	25 (44.6)	31 (55.4)	0.65	0.34, 1.25	0.20
RM1000 - 1999	117 (50.6)	114 (49.4)	0.77	0.49, 1.21	0.25
RM2000 - 2999	93 (54.4)	78 (45.6)	0.90	0.56, 1.46	0.67
RM3000 - 4999	91 (55.2)	74 (44.8)	0.93	0.58, 1.51	0.78
RM5000 and above	70 (56.9)	53 (43.1)	1.00 (Ref)		
Awareness					
Yes	381 (54.5)	318 (45.5)	2.08	1.19, 3.64	0.01*
No	22 (37.3)	37 (62.7)	1.00 (Ref)		
Family Support					
Low	28 (57.1)	21 (42.9)	1.00 (Ref)		
Moderate	131 (52.0)	121 (48.0)	0.80	0.42, 1.49	0.47
High	244 (53.4)	213 (46.6)	0.87	0.47, 1.59	0.65
Friend support					
Low	11 (50.0)	11 (50.0)	1.00 (Ref)		
Moderate	184 (52.9)	164 (47.1)	1.23	0.54, 3.14	0.64
High	208 (53.6)	180 (46.4)	1.31	0.51, 2.98	0.55
Support from significant others					
Low	20 (46.5)	23 (53.5)	1.00 (Ref)		
Moderate	150 (53.2)	132 (46.8)	1.31	0.68, 2.54	0.42
High	233 (53.8)	200 (46.2)	1.31	0.69, 2.49	0.41

Note: Analyses were adjusted with sampling weights
*P-value <0.05

4.2.4.3 Univariate analyses between needs factors and mental health services utilisation.

Table 4.28 shows the association between need factors and mental health services utilisation. Perceived need for help was associated with help-seeking. Of those adolescents who sought help from any services, the proportion of adolescents who perceived a need for help or did not know were higher than the proportion of adolescents who did not perceive a need for help. Both the former groups had significantly higher odds of seeking help from mental health services than the latter.

In terms of mental health status, adolescents who had extremely severe depression, anxiety and stress showed a significant likelihood of help-seeking from mental health services. The was an increasing trend of odd ratios with the increase of severity score for all scales. However, it was not statistically significant except for the extremely severe group. In addition, a higher proportion of adolescents with not good or very bad to moderate self-rated perceived general health sought help from mental health services, but the result was not statistically significant.

Table 4.28: Univariate Analysis of The Need Factors and Mental Health Services Utilization

Need factors	Mental Health Services		Crude OR	95%CI	*P*
	Sought help from any services N=403	Did not seek help N=355			
	Mean (SD) or n (%)	**Mean (SD) or n (%)**			
Perceived General health					
Very good/ Good	195 (48.9)	204 (51.1)	1.00 (Ref)		
Moderate	148 (56.3)	115 (43.7)	1.79	0.93-3.46	0.08
Not good/ Very bad	56 (62.2)	34 (37.8)	2.00	0.69-5.79	0.20
Perceived need for help					
Yes	216 (59.7)	146 (40.3)	1.84	1.33, 2.55	<0.001
No	117 (43.0)	155 (57.0)	1.00 (Ref)		
Don't know	70 (56.5)	54 (43.5)	1.79	1.15, 2.78	<0.01
Mental Health Status					
Depression					
Normal	177 (51.2)	169 (48.8)	1.00 (Ref)		
Mild	86 (55.5)	69 (44.5)	1.21	0.82, 1.79	0.33
Moderate	80 (47.6)	88 (52.4)	0.88	0.60, 1.28	0.50
Severe	27 (58.7)	19 (41.3)	1.39	0.73, 2.63	0.31
Extremely severe	33 (76.7)	10 (23.3)	3.25	1.52, 6.92	<0.01
Anxiety					
Normal	94 (45.0)	115 (55.0)	1.00 (Ref)		
Mild	38 (52.8)	34 (47.2)	1.45	0.84, 2.50	0.19
Moderate	127 (55.5)	102 (44.5)	1.52	1.04, 2.24	0.03*
Severe	61 (55.0)	50 (45.0)	1.53	0.95, 2.45	0.08
Extremely severe	83 (60.6)	54 (39.4)	1.91	1.22, 2.99	<0.01
Stress					
Normal	203 (50.1)	202 (49.9)	1.00 (Ref)		
Mild	66 (52.4)	60 (47.6)	1.00	0.66, 1.51	0.99
Moderate	63 (52.5)	57 (47.5)	1.09	0.72, 1.64	0.70
Severe	49 (62.0)	30 (38.0)	1.66	1.00, 2.76	0.05
Extremely severe	22 (78.6)	6 (21.4)	3.87	1.52, 9.87	<0.01

Note: Analyses were adjusted with sampling weights
*P-value <0.05

4.2.5 Multivariable Analyses of Mental Health Services Utilisation

This subsection provides the findings from multivariable analyses using multiple binary logistic regression for complex samples analysis. The significant factors with p-value <0.25 in the univariate analyses were included in the multivariable model. The

selected variables were entered in blocks according to the conceptual framework based on Andersen's Behavioural Model of Healthcare Service Utilisation, namely Model 1 for the *Predisposing Factors*, Model 2 for the *Enabling Factors* and Model 3 for the *Need Factors*. The full logistic regression model is shown in Table 4.29.

4.2.5.1 Model 1: Predisposing factors

In the first model, variables in 'predisposing factor' were included. From the univariate analysis, 12 variables showed significant results (with p-value <0.25) namely gender, ethnicity, family structure, mother's educational level, father's occupational status, mother's occupation, family history of mental disorder, family size, attitudes towards seeking professional help, help-seeking preference, knowledge about symptoms of depression, and self-reported experience of depression.

The results of model 1 revealed that knowledge of symptoms of depression and self-reported experience of depression were significantly related to the use of mental health services. Adolescents with excellent, very good and good knowledge of symptoms of depression were 2.24 times more likely to seek help from any services than those with poor and very poor knowledge of symptoms of depression (AOR = 2.24, 95% CI = 1.41, 3.56). Adolescents who self-reported experience of depression were 1.65 more likely to seek help from any services than those who never experienced depression (AOR = 1.65, 95% CI = 1.17, 2.32).

4.2.5.2 Model 2: Enabling factors

Household income and awareness about the availability of resources were included in the second model. In this model, out of 'predisposing factors', knowledge and self-reported experience of depression retained their significance. Of 'enabling factors,' awareness was the only significant variable.

In model 2, the odds ratio of knowledge of symptoms of depression remained relatively stable; the results showed that adolescents with excellent, very good and good knowledge were 2.11 more likely to use mental health services (AOR = 2.11, 95% CI = 1.31, 3.38). The odds ratio of self-reported experience of depression increased to 1.72 (95% CI = 1.21, 2.44) which indicated that adolescents with experience of depression were 1.72 more likely than those without the experience of depression to use mental health services. Additionally, model 2 showed that adolescents aware of the resources for help were 1.94 more likely to use mental health service compared to those who were not aware of the available resources (AOR = 1.94, 95% CI = 1.05, 3.58).

4.2.5.3 Model 3: Need factors

The 'need variables' namely perceived general health, perceived need for help, anxiety and depression severity score were added to model 3. In this model, gender, family structure, knowledge of symptoms of depression, self-reported experience of depression, awareness of available resources, the perceived need for help and depression were significant factors.

In model 3, gender, family structure and mother's occupation were significantly associated with mental health services utilisation. However, there were not significant predictors in model 2.

Knowledge of symptoms of depression remained significant in model 3 as the odds ratio remained stable. This model showed that adolescents who had excellent, very good and good knowledge of symptoms of depression were 2.12 more likely to use mental health services than those who had poor and very poor knowledge (AOR = 2.12, 95% CI = 1.30, 3.46). Also, adolescents who had moderate knowledge showed a significant association with mental health services utilisation (AOR = 1.69, 95% CI = 1.03, 2.78). Self-reported experience retained its significance in model 3, with the odds ratio slightly

decreasing. It showed that adolescents who reported experiencing depression were 1.49 times more likely to use mental health services (AOR = 1.49, 95% CI = 1.02, 2.18).

Adolescents aware of the available resources for mental health problems were 2.26 (95% CI=1.91, 4.29) more likely to use mental health services. The odds ratio increased slightly from the previous model. Those who perceived the need for help for the past 12-months for mental health problems were 1.44 more likely to get help from mental health services. However, it was not statistically significant (AOR = 1.44, 95% CI = 0.96, 2.16). Adolescents who were unsure whether or not they perceived a need for help were significantly associated with mental health service utilisation (AOR = 1.82, 95% CI = 1.08, 3.05). Furthermore, compared to adolescents with a normal score of depression, only those with moderate severity score were a significant predictor with 51% less likely to use mental health services (AOR = 0.49, 95% CI = 0.29, 0.83).

Finally, the variables that were significant in the three models proceeded to the final model. The interactions were verified for all the models. There was no evidence that other interaction terms should be included.

Table 4.29: Multivariable Logistic Regression Analysis for Mental Health Services Utilisation

Variables	Model 1		Model 2		Model 3	
	OR[a] (95% CI)	P-value	OR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value
Predisposing						
Gender						
Male	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Female	0.73 (0.51, 1.04)	0.08	0.73 (0.50, 1.05)	0.09	0.68 (0.47, 1.00)	<0.05
Ethnicity						
Malay	1.00 (Ref)		1.00 (ref)		1.00 (Ref)	
Chinese	0.71(0.35, 1.46)	0.35	0.71 (0.34, 1.47)	0.35	0.77 (0.35, 1.68)	0.50
Indian	1.00 (0.59, 1.67)	0.99	1.05 (0.62, 1.77)	0.87	1.09 (0.61, 1.93)	0.78
Others	1.86 (0.82, 4.25)	0.14	2.01 (0.88, 4.58)	0.10	2.17 (0.92, 5.10)	0.08
Family structure						
Parents	0.56 (0.28, 1.13)	0.10	0.53 (0.27, 1.05)	0.07	0.48 (0.26, 1.83)	<0.05
Father/ mother only	0.73 (0.29, 1.85)	0.50	0.81 (0.32, 2.08)	0.66	0.69 (0.26, 1.83)	0.46
Others	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Family history of mental illness						
Yes	1.82 (0.79, 4.19)	0.16	1.84 (0.78, 4.34)	0.16	1.38 (0.57, 3.33)	0.48
No/ Don't know	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Family Size						
Less than 4	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Equal or more than 4	1.32 (0.95, 1.85)	0.10	1.34 (0.95, 1.88)	0.10	1.31 (0.91, 1.88)	0.14
Mother's educational level						
Higher	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Secondary	0.80 (0.54, 1.20)	0.29	0.84 (0.55, 1.28)	0.42	0.81 (0.52, 1.26)	0.35
Primary	0.84 (0.44, 1.59)	0.59	0.97 (0.50, 1.89)	0.94	1.01 (0.50, 2.01)	0.99
Non-formal/ no education / not applicable	1.32 (0.52, 3.35)	0.56	1.32 (0.50, 3.46)	0.58	1.24 (0.47, 3.29)	0.66

Note: Analyses were adjusted with sampling weights.
[a] Adjusted Odd Ratio, CI represents confidence interval
The sample size included in the multiple logistic regression was less than the total sample of 758 because of the missing data for some variables.
Multicollinearity were checked and not found. Since all of SE value for beta coefficient was less than 2.0, thus there is evidence of no multicollinearity among independent variables
Model 1: Nagelkerke R Square = 0.104, Cox and Snell = 0.078, McFadden = 0.059 and Classification table = 60.2
Model 2: Nagelkerke R Square = 0.119, Cox and Snell = 0.089, McFadden = 0.068 and Classification table = 61.6
Model 3: Nagelkerke R Square = 0.172, Cox and Snell = 0.129, McFadden = 0.100 and Classification table = 65.4

Table 4.29; continued

Variables	Model 1		Model 2		Model 3	
	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value
Predisposing						
Father's occupational status						
Professional	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Non-professional	1.27 (0.84, 1.92)	0.25	1.41 (0.91, 2.18)	0.13	1.56 (0.98, 2.48)	0.06
Retiree/ unemployed/ self-employed	1.13 (0.70, 1.81)	0.63	1.23 (0.73, 2.07)	0.44	1.27 (0.73, 2.21)	0.40
Don't know / not applicable	0.62 (0.31, 1.24)	0.17	0.63 (0.30, 1.30)	0.21	0.74 (0.34, 1.61)	0.45
Mother's occupational status						
Professional	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Non-professional	0.86 (0.49, 1.50)	0.59	0.88 (0.49, 1.58)	0.67	0.90 (0.49, 1.66)	0.74
Retiree/ unemployed/ self-employed	0.97 (0.61, 1.55)	0.91	1.02 (0.62, 1.68)	0.94	0.99 (0.58, 1.69)	0.98
Don't know / not applicable	0.25 (0.06, 0.98)	<0.05	0.21 (0.05, 1.02)	0.05	0.22 (0.05, 0.94)	<0.05
Housewife	0.79 (0.37, 1.66)	0.53	0.76 (0.36, 1.63)	0.48	0.78 (0.36, 1.69)	0.52
Knowledge on symptoms of depression						
Excellent/ very good/ good	2.24 (1.41, 3.56)	<0.01 0.05	2.11 (1.31, 3.38)	<0.01 0.08	2.12 (1.30, 3.46)	<0.01 <0.05
Moderate	1.60 (1.00, 2.55)		1.54 (0.95, 2.50)		1.69 (1.03, 2.78)	
Poor/ very poor	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Self-reported experience						
Yes	1.65 (1.17, 2.32)	<0.01	1.72 (1.21, 2.44)	<0.01	1.49 (1.02, 2.18)	<0.05
Do not want to disclose	1.45 (0.87, 2.42)	0.15	1.52 (0.91, 2.56)	0.11	1.28 (0.74, 2.22)	0.37
No	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	

Note: Analyses were adjusted with sampling weights.
[a] Adjusted Odd Ratio
The sample size included in the multiple logistic regression was less than the total sample of 758 because of the missing data for some variables.
Multicollinearity were checked and not found. Since all of SE value for beta coefficient was less than 2.0, thus there is evidence of no multicollinearity among independent variables
Model 1: Nagelkerke R Square = 0.104, Cox and Snell = 0.078, McFadden = 0.059 and Classification table = 60.2
Model 2: Nagelkerke R Square = 0.119, Cox and Snell = 0.089, McFadden = 0.068 and Classification table = 61.6
Model 3: Nagelkerke R Square = 0.172, Cox and Snell = 0.129, McFadden = 0.100 and Classification table = 65.4

Table 4.29; continued

Variables	Model 1		Model 2		Model 3	
	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value
Predisposing						
Help-seeking preference						
Family	1.37 (0.81, 2.31)	0.24	1.34 (0.79, 2.26)	0.27	1.49 (0.85, 2.63)	0.17
Friend/ other	1.07 (0.63, 1.82)	0.81	1.01 (0.59, 1.72)	0.97	1.02 (0.58, 1.80)	0.95
None	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Attitudes						
Low	1.00 (Ref)		1.00 (Ref)		1.00 (Ref)	
Medium	1.04 (0.70, 1.53)	0.86	1.04 (0.70, 1.54)	0.86	1.51 (0.76, 1.74)	0.50
High	1.07 (0.63, 1.82)	0.14	3.48 (0.55, 21, 93)	0.19	4.32 (0.68, 27.49)	0.12
Enabling						
Household income						
RM499-999			0.70 (0.30, 1.60)	0.39	0.66 (0.27, 1.60)	0.35
RM1000-1999			0.76 (0.42, 1.36)	0.35	0.69 (0.37, 1.28)	0.24
RM2000-2999			0.94 (0.53, 1.66)	0.84	0.89 (0.49, 1.62)	0.71
RM3000-4999			0.95 (0.56, 1.64)	0.86	0.94 (0.54, 1.65)	0.84
RM5000 and above			1.00 (Ref)		1.00 (Ref)	
Awareness of resources						
Yes			1.94 (1.05, 3.58)	<0.05	2.26 (1.91, 4.29)	<0.05
No			1.00 (Ref)		1.00 (Ref)	

Note: Analyses were adjusted with sampling weights. [a] Adjusted Odd Ratio
The sample size included in the multiple logistic regression was less than the total sample of 758 because of the missing data for some variables.
Multicollinearity were checked and not found. Since all of SE value for beta coefficient was less than 2.0, thus there is evidence of no multicollinearity among independent variables
Model 1: Nagelkerke R Square = 0.104, Cox and Snell = 0.078, McFadden = 0.059 and Classification table = 60.2
Model 2: Nagelkerke R Square = 0.119, Cox and Snell = 0.089, McFadden = 0.068 and Classification table = 61.6
Model 3: Nagelkerke R Square = 0.172, Cox and Snell = 0.129, McFadden = 0.100 and Classification table = 65.4

Table 4.29; continued

Variables	Model 1		Model 2		Model 3	
	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value	AOR[a] (95% CI)	P-value
Need						
Perceived general health						
Very good/ good					1.00 (Ref)	
Moderate					1.43 (0.98, 2.09)	0.06
Not good/ bad					1.48 (0.81, 2.69)	0.20
Perceived need for help						
No					1.00 (Ref)	
Yes					1.44 (0.96, 2.16)	0.08
Don't know					1.82 (1.08, 3.05)	<0.05
Depression						
Normal					1.00 (Ref)	
Mild					0.98 (0.62, 1.55)	0.94
Moderate					0.49 (0.29, 0.83)	<0.01
Severe					0.57 (0.25, 1.31)	0.19
Extremely severe					1.18 (0.42, 3.29)	0.75
Anxiety						
Normal					1.00 (Ref)	
Mild					1.59 (0.88, 2.88)	0.12
Moderate					1.36 (0.86, 2.16)	0.19
Severe					1.64 (0.91, 2.94)	0.10
Extremely severe					1.42 (0.72, 2.81)	0.32
Stress						
Normal					1.00 (Ref)	
Mild					0.84 (0.50, 1.41)	0.50
Moderate					1.06 (0.58, 1.92)	0.85
Severe					1.41 (0.64, 3.13)	0.40
Extremely severe					2.66 (0.80, 8.85)	0.11

Note: Analyses were adjusted with sampling weights.
[a] Adjusted Odd Ratio
The sample size included in the multiple logistic regression was less than the total sample of 758 because of the missing data for some variables.
Multicollinearity were checked and not found. Since all of SE value for beta coefficient was less than 2.0, thus there is evidence of no multicollinearity among independent variables
Model 1: Nagelkerke R Square = 0.104, Cox and Snell = 0.078, McFadden = 0.059 and Classification table = 60.2
Model 2: Nagelkerke R Square = 0.119, Cox and Snell = 0.089, McFadden = 0.068 and Classification table = 61.6
Model 3: Nagelkerke R Square = 0.172, Cox and Snell = 0.129, McFadden = 0.100 and Classification table = 65.4

4.2.5.4 Final Model

The final model is shown in Table 4.30. In the final model, only variables that were significant in model 1 through model 3 were included. The significant variables included in the model were knowledge on symptoms of depression, self-reported experience of depression, awareness of available resources, perceived need for help and depression.

Finally, four variables which were knowledge of symptoms of depression, self-reported experience of depression, awareness of available resources and perceived need for help were significant predictors for mental health services utilisation. The model showed that adolescents with excellent, very good and good knowledge on symptoms of depression were two times more likely to seek help from mental health services than those who had poor and very poor knowledge (AOR = 2.10, 95% CI = 1.31, 3.36). Adolescents who had experience of depression were 1.44 more likely to use mental health services (AOR = 1.44, 95% CI = 1.02, 2.02). Compared to adolescents who were not aware of available resource, those who aware were 1.90 more likely to use mental health services (AOR = 1.90, 95% CI = 1.08, 3.36). Further, adolescents who perceived the need for help were 1.61 more likely to use mental health services (AOR = 1.61, 95% CI = 1.12, 2.29). Adolescents who did not know whether or not they needed help were 1.79 more likely to use services than those who did not perceive a need for help (AOR = 1.79, 95% CI = 1.13, 2.84). Depression turned to be statistically not significant in the final model. However, it showed that those with extremely severe depression were two times more likely to use mental health services. The final logistic regression model had a predictive capacity of 62.5% with a pseudo R of 8.5% (Nagelkerke R Square).

Table 4.30: Final Model of Logistic Regression Results: Significant Determinants of Mental Health Services Used

Variables	Coefficient	SE	OR[a] (95% CI for OR)	P value
Predisposing				
Knowledge of symptoms of depression				
Excellent/ very good/ good	0.74	0.24	2.10 (1.31, 3.36)	0.002**
Moderate	0.42	0.24	1.52 (0.95, 2.43)	0.08
Poor/ very poor			1.00 (Ref)	
Self-reported experience of depression				
Yes	0.36	0.18	1.44 (1.02, 2.02)	0.04*
Do not want to disclose	0.14	0.26	1.15 (0.69, 1.90)	0.59
No			1.00 (Ref)	
Enabling				
Awareness of resources				
Yes	0.64	0.29	1.90 (1.08, 3.36)	0.03*
No			1.00 (Ref)	
Need				
Perceived need for help				
No			1.00 (Ref)	
Yes	0.47	0.18	1.61 (1.12, 2.29)	0.009**
Don't know	0.58	0.24	1.79 (1.13, 2.84)	0.01*
Depression severity score				
Normal			1.00 (Ref)	
Mild	0.01	0.21	1.01 (0.67, 1.52)	0.97
Moderate	-0.38	0.21	0.68 (0.45, 1.04)	0.07
Severe	-0.02	0.34	0.98 (0.50, 1.90)	0.95
Extremely severe	0.70	0.40	2.02 (0.92, 4.46)	0.08

Note: Analyses were adjusted with sampling weights.
[a] Adjusted Odd Ratio, * P-value <0.05 ** P-value <0.01
The sample size included in the multiple logistic regression was less than the total sample of 758 because of the missing data for some variables.
Multicollinearity were checked and not found. Since all of SE value for beta coefficient was less than 2.0, thus there is evidence of no multicollinearity among independent variables
Classification table (overall correctly classified percentage = 62.5)
Nagelkerke R Square= 0.085, Cox and Snell = 0.064, McFadden = 0.048

4.3 Summary of Findings of the Quantitative Phase

Overall, 53.2% of adolescents in this study sought help from mental health services in the past 12-month regardless of their current mental health status. Of these, only 3.7% used formal mental health services. In addition, 96% of the adolescents who sought help from mental health services also sought help from informal sources such as friends, parents, siblings, relatives and internet chats. The majority of adolescents preferred to seek help from friends and family for their mental health problems.

With regard to mental health status, among adolescents with an abnormal score of depression, anxiety and stress (36.5%), 59.2% sought help from any service in the past 12 months. Of these, only 6.9% sought help from formal mental health services. Almost all of them sought help from informal sources such as family, friends, relatives and internet chat (91.7%).

Results from the final logistics regression model showed that knowledge about symptoms of depression, self-reported experience, awareness of the resources and perceived need for help were significantly associated with mental health services utilisation. Knowledge and perceived need for help were identified as strong contributors to the mental health services utilisation.

4.4 Qualitative Findings

4.4.1 Introduction

The qualitative method was used to further explore the significant findings in the quantitative phase, namely knowledge on mental health, awareness of resources and perceived need for help. Furthermore, the qualitative phase was designed to explore the perceived barriers to help-seeking for mental health problems among adolescents. As described, the content analysis method was applied in this study. The first subsection provides the general characteristics of the adolescents who participated in this qualitative

phase. The adolescents were selected based on predetermined criteria from the quantitative phase namely those who perceived a need for help, had sought help from formal and informal services, and had abnormal mental health status. It was followed by descriptions of the adolescents' help-seeking behaviour, awareness of the resources, and perceived need for help. The following subsection provides the adolescents' perceptions of the barriers toward seeking help for their mental health problems. There was also an analysis of the findings on mental health knowledge based on the vignette used during the interview. At the end of this section, the triangulation method will be discussed in order to establish the validity of the qualitative findings.

4.4.2 Characteristics of Participants Involved in the Qualitative Study

A total of 36.5% (n=277) participants of whom 30.9% males and 38.7% females reported having at least one abnormal score of depression or anxiety or stress. Of these, 59.2% (n=164) reported they sought help from mental health services, and 40.8% (n=113) did not seek any help. About 171 (61.7%) reported a perceived need for help. Finally, about 171 participants were eligible for the qualitative phase. Of these participants, 22 participated in the qualitative component of the study. More than 60% were females, and 31.8% were males. The majority of participants were Malay (86.4%), while Chinese and Indian accounted for 4.5% and 9.1% respectively. Approximately 50% had a family household income above RM3,000. The majority of participants were living with their parents (72.7%) and their parents were married (81.8%). Additionally, an equal proportion of adolescents had a number of siblings less than four and more than four. The distribution of participants' sociodemographic characteristics in the qualitative phase was almost similar to those in the quantitative phase. Thus, the characteristics of participants in-depth interviews were comparable to those in the quantitative survey. The results are shown in Table 4.31.

Table 4.31: Characteristics of Adolescent Participants (n=22)

Characteristics	Frequency	Percentage (%)
Gender		
Male	7	31.8
Female	15	68.2
Ethnicity		
Malay	19	86.4
Chinese	1	4.5
Indian	2	9.1
Household Income		
RM499-999	1	4.5
RM1000-1999	7	31.8
RM2000-2999	2	9.1
RM3000-4999	7	31.8
RM5000 and above	4	18.2
Parent's Marital Status		
Married	18	81.8
Divorced or separated	4	18.2
Family Structure		
Parents	16	72.7
Father only	1	4.5
Mother only	1	4.5
Others (relatives or siblings)	4	18.2
Number of Siblings		
Less than 4	11	50
More than 4	11	50

4.4.3 Help-seeking Behaviour

The in-depth interview explored adolescents' help-seeking behaviour for their mental health problems. Majority of participants sought help from informal sources such as friend and family. These sources were the most accessible and convenient to them. Trust, close relationship, non-judgemental attitude, and understanding were the reasons they sought help from friends and family. Participants tend to share their problems with those who were having similar problems and conditions. Some participants only sought help after being advised by their family members or friends. Help-seeking behaviour was

influenced by participants' perception of problems. They only perceived to seek help when the problem was severe or worse. Before asking for help, most participants tried to deal with their stress or problem. Type of coping mechanism was depending on individual preference. Male participants were coping by doing more physical activities, while female participants were coping by listening to music etc.

This subsection further illustrates the information on sources of help, coping mechanism in facing mental health problems and their perceptions of the importance of help-seeking.

4.4.3.1 Sources of help

Friends were the most frequent source of help when facing mental health problems. This was mentioned by 15 participants, which comprised 68.2% of the in-depth interview participants. They reported that the close relationship influenced them to seek help from a friend. They had known their friends for 5 to 12 years. This duration of friendship indicates a close relationship of trust. The following were some of their comments:

> *""Aaa… Back then I had a friend. We have been close friends since year three. We are friends since our school years. So, I tell her my problems"* (Female, Malay, 18)

> *"If I could not bear it anymore, I would tell my friend whom I have known since form one. I know she is a girl. I have seen her face. I can talk to her. She knows I have this thing (mental health problem) because I was honest with her"* (Female, Malay, 18)

> *"There is a friend of mine. We have been best friends since kids. Her name is F****. I always shared my problems with her back then... I*

always go to her house or sometimes she will come and meet me. Then, we will talk to each other about our problems" (Female, Malay, 18)

Some participants also reported that they choose to talk to their friend because the friend is non-judgmental and understanding. The following are their statements:

"*… I just know that if things become unbearable to me, I will find my friends. A friend who will not judge me*" (Female, Malay,18)

*"My friend M***, I think she is understanding. I always talk to her"* (Female, Malay, 18)

The anticipation of parental anger dictated the actions of adolescents. Also, they did not feel close to their parents or relatives so they turned to seek help from friends. One of the participants commented that she shared with friends because of her parents. The following are their statements:

"*Because I barely go out. My father likes to ask me. So, I would rather stay at home than to listen to him nagging. That's why I share my problem with my friend"* (Female, Malay, 18)

The second most common source of help was family. Ten participants reported that they either shared their problem with parents or siblings or both. Commonly, adolescents like to share when they have something in common. Some participants reported that they only shared with their sibling because they faced the same problems. They perceived that their siblings know about them as well as their circumstances and share similar experience. The following were some of the participants' comments:

"I think the best person is my mother. The reason why I talk to my mother is because after school, I spend 24/7 with my mother. If my mother

watches drama, I watch them too. My mother will always be by my side 24/7." (Male, Indian 18)

"I share with my younger brother, the fourth child. I like to share with him because he is always going to agree with me since he experienced similar issues with me." (Male, Malay, 18)

"My elder sister. (Interviewer: Apart from a sister who else?) No one because my sister often shares with similar problems since she experienced them too." (Female, Malay, 18)

There were few other sources from whom participants sought help for their mental health problems such as relatives, doctor, counsellor and religious people. Participants usually sought these sources after being advised by the family members or friends. The following quote shows one participant went to a clinic for depression with the help from her father. Her father is a medical assistant.

*"I went to the clinic before, to ask for medication for depression. It's like a sedative drug. I went to clinic D***, the doctor gave me a sedative-like drug and my father injected me with the drug, to make me calm"* (Female, Malay, 18)

Another participant went to see a psychiatrist after being advised by her close friend. The medication name '*Alprazolam'* was shown to the researcher during the interview. It was commonly prescribed for anxiety and panic disorder.

"I have been to Selayang Hospital before to see the psychiatrist. But, he only gave me medicine and advice." (Female, Malay, 18)

One participant had a family problem. Because of that he shared his problem with his relatives.

> *"I share my problem with all my aunts"* (Male, Malay, 18)

> *"I met a female religious teacher for help and prayers… My friend F****, she is the one who introduced me to her (female religious teacher)'* (Female, Malay, 18)

> "*My friend actually brought me to the counsellor"* (Female, Malay, 18)

Interestingly, there was one participant who had sought help from traditional healer or *'bomoh'.* Parent was the one who brought the participant to the traditional healer.

> *"When I was in form three, I didn't know I experienced depression. I wanted to commit suicide. I had cut my hand hmm(paused)… eating pills. In the past, my family often had disagreement. At one time, I couldn't control my anger and fainted. I often fainted at school. I fainted because of stress. Then, it affected my PMR. I was really down during PMR. It was worsening. After that, during form four, my father brought me to the traditional healer ('bomoh'). We have everything but I was not getting any better. I can see other thing (supernatural)"* (Female, Malay, 18)

Despite the available sources for help, five participants reported not seeking help for their mental health problems. Several factors cause them to keep things to themselves. Among them were being unable to express their feelings and trying to solve the problem on their own.

"I think I don't want to express my feeling. I can handle this problem on my own" (Male, Indian, 18)

"I'm not ready to tell anyone. I'll solve the problem by myself" (Female, Malay, 18)

Participants who mentioned not trusting others, such distrust was developed from previous experiences with their friends. The friendship would change when their close friends knew that they were having mental health problems. While not feeling close with people in their social network also influences them not to seek help. All the mentioned factors were part of the help-seeking barriers that will be explained in detail in the following subsection. The following were some participants' reactions to the question 'if you have a problem, who would you approach for help?":

"I did not tell anyone about it." (Male, Malay 18)

"If I'm sad, I like to be alone" (Male, Malay, 19)

"So far, I did not share with anybody since I did not trust anyone" (Female, Malay, 18)

"I will keep the problem by myself. I do not usually share it with others" (Female, Malay, 18)

"Friends around me are just friends. They are my classmates and housemates. I am not used to sharing my problems with others. I keep them to myself." (Female, Malay, 18)

4.4.3.2 Coping actions

Additionally, in order to deal with their mental health problem or stressful situation, most participants coped in with their ways. During the analysis, two themes of coping skills were identified including positive coping skills and negative coping skills.

Theme 1: Positive coping skills

This study found all the participants had positive coping skills. There are number of approaches were taken by the participants to cope with their problem in a positive way (Odgen & Hagen, 2018). The most prominent coping skills were sleep and listening to music. Participants listened to a random music that popular among adolescents. However, over sleep can be a negative coping action. In this interview, none of the participants mentioned about over sleep or sleeping for a long duration.

> *"If I experienced any problem, I would listen to a song. If I couldn't control it by listening to a song, I would sleep."* (Female, Malay, 18)

> *"I always walk around with my earphone and listen to the song that I like."* (Female, Malay, 19)

> *"Normally, if I feel stressed out, I will sleep. I will try to forget about it and think about something else."* (Male, Malay, 18)

Most female participants reported they coped by crying. It somehow relieved their feelings of depression or anxiety, etc.

> "*Firstly, I would cry…hmm... I wouldn't be able to control if it was something related to someone I love. For example, my mother"* (Female, Malay, 18)

"I cry easily. I am sensitive. I will cry for this kind of thing alone in the room and then I will sleep. After sleeping, I will get better." (Female, Malay, 18).

However, it was different for the male participants in terms of coping with the stressful situations or problems. They were coping with stressful conditions by doing physical activities or playing sport.

"If I feel depressed, I'll listen to music and play sport... I still remember that time, I started to jog, did push ups and sit ups. So, if I stay just like that (being depressed), I would do negative things. Or I'll go crazy. So, I start to do physical activities such as jogging and playing futsal. I play futsal five days in a week." (Male, Indian, 18)

"For me, if I am sad, I like to swim. I like the cold shower. I like to go out for jogging" (Male, Malay, 19)

The remaining coping skills were watching cartoon, prayer, hangout with close friend and reading. While, the smallest number of coded responses were gathered under one theme categorized as others. There were cooking, dancing, spending time in nature, staying in a quiet place, playing with a gadget, doing homework, shopping and performing other relaxation techniques.

Theme 2: Negative coping skills

There were also negative coping skills identified while conducting the analysis on the coping actions. A negative coping skill is said to occur when an individual manages or overcomes their emotional problems by using an approach that makes their mental and physical health worsen in the long run (Odgen & Hagen, 2018). These included self-harm,

drinking alcohol and watching pornography. By doing these, it helps them to control and relieve their anxiety. Most of the participants have good insights. They know that the actions were wrong and could harm themselves.

> *"Honestly, I had scratched my hand before. It wasn't bleeding, only scratch marks. But if you see, the scratch marks are still there… It has been quite some time. It was last year. On this hand, they (scratches) are gone, only a little left. If I didn't do this thing (scratch), sometimes, I used rubber band to pull and snap my hand to reduce the pain…"* (Female, Malay, 18)

> *"I ordered liquor… I started to drink from 7 in the evening until 4 o'clock in the morning"* (Male, Indian, 18)

> *"Aahh... My bad habits. If I have a problem, I like… (laughing). If I have a problem, I like to watch porn"* (Male, Malay, 19)

4.4.3.3 Perception of importance of seeking help

Additional information on participants' perception of the importance of seeking help for mental health problems was attained during the interview. Participants were asked the question: "Why do you think it is important to seek help for such a problem?". This help was referred to professional help. During the analysis, two themes related to the perception of importance of help-seeking were identified. These were consequences of not seeking-help or delay in seeking help and perceived importance. Participants reported that delay in, or not seeking help may lead to serious outcomes such as physical illness or suicide. Some other participants stated that seeking help may ease their emotional burden.

Theme 1: Consequences of not seeking-help or delay seeking help

Participants believed that it was important to get help from professionals as they were worried the problem could get worse without help and it could affect their physical health as well.

> *"Because if someone who has an emotional problem or mental health problem doesn't seek help, it will get worse."* (Female, Chinese, 18)

> *"If you keep on thinking, you will be sick. The sickness is caused by lack of sleep, lack of eating, having headache and a lot of other problems. For me, we fall sick easily because of those reasons. Indeed, we'll go crazy"* (Male, Indian, 18)

> *"I think, if we don't find someone to talk to, we will fall sick easily. Our mind will break down. Because there's no one to talk to. At first, if I do not express my feeling, there will be someone talking inside me. The other people were talking inside me. Next, I will have headache. Severe headache."* (Male, Indian, 18)

In addition, further exploration was done regarding '*other people were talking inside me'*. The participant denied hallucination. It only happened once while he claimed he was overthinking about a problem, which led to lack of sleep. During the interview, there was no mention about hearing voices.

Several participants also mentioned the importance of seeking help for mental health problems because it might get worse, especially if they led to suicidal ideation or attempts.

"Of course, we need to do this (seek help). I am afraid that it will get worse and eventually they (adolescents) will perform suicide. They do not want to live any longer because they think life is a burden. Hence, they need to tell someone because that someone might have similar experiences or worse problems. If they can't help him or her to overcome the problem, they might help him or her slightly." (Female, Malay. 18)

Theme 2: Perceived importance of help-seeking

Feeling of importance of seeking help was influenced by a few factors such seeking help gives a sense of relieve and helps them to get rid of their current problems. Some participants believed that talking about problems to someone would relieve the heavy feelings or offload the burden. Participants perceived the importance of seeking help when they keep the problem for too long with the hope that professionals can help them to change the existing circumstances. The coping actions would not last long unless they talk to someone about the problems.

"Because we need someone to talk to. Unless we talk to someone, the thing will keep coming back. As I said earlier, if we sleep, we feel relieved for a while. But the feeling will come back at other time. When I talk to my counsellor, I feel relieved a lot. Wow! When I tell my friend, I feel relieved too" (Female, Malay. 18)

"Because I keep it for a long time. I don't want it to be the same. I want that situation to change. Those changes would not be from me only but also from my closed ones too. Because I live with them. If I am the only person who makes the effort, it would not be enough. That's why I need

that help to at least make them realise what is important." (Female, Malay, 18)

4.4.4 Awareness of Resources

More than half of the participants in the interview reported that they were aware of the availability of the resources related to mental health problems. The most common resources were counsellors followed by doctors and teachers. Two participants mentioned that they could get help from psychologists and motivators. Some participants stated they were aware there is a counsellor in their school. The resources that participants were aware of were teachers, school counsellors, online, television, and advertisements.

"Technically I know there is a counsellor. We have a post (in school) for a counsellor..." (Female, Malay, 18)

"Like me, I only know there is a counsellor" (Male, Malay, 18)

Some of the participants stated that teachers were sources of help because they believed teachers are experienced in dealing with adolescents and know what is best for students. The following were the participants' comments:

"If things get worse, I will tell the teacher. Because, teachers always know what is best for their students." (Male, Malay, 18)

"Usually they talk to the teacher. Because the teacher always has a lot of experiences with teenagers" (Male, Malay, 18)

Some participants were not aware of where they can get help for their mental health problems. They had negative attitudes about seeking professional help such as not having confidence in professional help, keeping the problem to themselves, assuming that the problem would resolve on its own and perceiving professionals as a stranger or outsider.

Some participants were not aware of the help or service that they can get from the professional. This may be also related to their knowledge regarding the function of professionals. All of these reasons are part of the barriers to seeking professional help. The following are some of the participants' comments about reasons for not being aware of the available mental health resources.

> *"Most of adolescents don't know (mental health resources). Maybe they know but they do not know whether that they (the professional) will help or not."* (Female, Malay, 18)

> *"They (adolescents) don't know. Like myself, I also don't know. Because I think no one wants to help me. So, I give up. I don't want to express my feeling and I will handle this problem by myself."* (Male, Indian, 18)

4.4.5 Perceived Need for Help

All the participants in the interview reported the need for help in the past 12-months in the quantitative survey. Thus, the perceived need for help was explored further in this qualitative phase. The analysis revealed that adolescents perceived a need for help when they were no longer able to cope with the problems. There were adolescents who perceived need for help immediately after recognising that they had a problem. The need for help was also influenced by how adolescents perceived their mental health problem. However, some adolescents only perceived need for help when they were ready to share and talk about the problems with others.

Eleven participants reported that they perceived the need for professional help when they could not handle or cope with the problems. The problem became more severe and affected their daily activities by causing loss of focus, suicidal thoughts, self-harm and depression. Some of the participants commented:

"emm… I think if I really feel stressed out, cannot handle it anymore, the way I cope is by studying. If I really cannot focus on my study anymore, I think I'll look for help" (Female, Malay, 18)

"When I cannot handle it anymore. The thing (problem) is so heavy and it bothers me a lot, I will seek for help." (Female, Malay, 18)

"I feel really stressed out. I feel really sad and cannot focus on doing things" (Female, Malay, 19)

The need for help was influenced by the severity of the problems. Participants also reported that they needed help when it involved self-harm and suicidal ideation or thoughts. The following were some of the participants' comments:

"To the extent where I want to hurt myself." (Female, Malay, 18)

"The time I cannot control. When the feeling is controlling me. I feel like hurting myself" (Female, Malay, 18)

"Emotion can control everything till some of us decide to commit suicide. So, before it is too late, I better get help." (Female, Malay, 18)

"If it becomes critical then I should meet a professional… like when I couldn't control and wanted to end my life." (Female, Malay, 18)

A few participants believed that they need help as early as possible when knowing that they have mental health problems. However, several participants admitted that they did not recognise the symptoms of mental health problems. Thus, professional help was often delayed. The following are some comments from the participants.

"I think on the spot. I think when you realise that you have such problem, you must find one and express your feelings." (Male, Indian, 18)

"When? Actually, I think when first I got this (anxiety). When I was form 3. But I didn't recognise it. I only recognised it when I was in form five. I searched for it and looked for help." (Female, Malay, 18)

Besides, several participants reported that they would only seek help when they are ready to talk about their problems to others. The person would be someone who they can trust and are close to. The following was a participant's comment:

"When I' m ready to talk, I'll find it (seek help). Actually, I will talk to someone whom I trust. If the person is not close to me, I'll not talk." (Female, Malay, 18)

Sometimes they were waiting for someone to ask about their condition and later they would open up about their problems. The following statement was made by one of the participants:

*"I don't know why. At first, I keep the problem to myself. I do not tell anyone. Until someone asked me. Like F*****, she asked me why I look so different. Then I talked to her about my problem"* (Female, Chinese, 18)

4.4.6 Mental Health Literacy

This subsection illustrates the adolescents' knowledge about mental health problems particularly depression, based on the vignette including recognition of mental health problems, perception of the seriousness of the problem, perception of causes of mental health problem and awareness about adolescent's mental health issues.

Majority of the adolescents were able to recognise the problem in the vignette and reported it as a serious problem that required professional help. Some had experienced the same symptoms described in the vignette.

1) Recognition of a mental health problem

Participants were asked: "What do you think is wrong with Ahmad?" Out of 22 participants, 19 recognised the mental health problem in the vignette. Fourteen participants recognised correctly that *'Ahmad'* has depression. The following were their comments:

> *"I read it (the vignette). His problem is, he is sad, depressed and tired all the time"* (Male, Malay, 18)

> *"Ahmad… I think he has depression issues. Because of that, he could not focus on his study. There were negative effects such as he is unable to sleep and getting bad results."* (Female, Malay, 18)

Meanwhile some participants recognised *'Ahmad'* mental health problems as sadness and stress.

> *"He has sadness issues. She would get sad without a reason."* (Female, Chinese, 18)

> *"I think maybe he is stressed out for several reasons. Maybe he is stressed out because of the people around him or his surroundings."* (Female, Malay, 18)

2) Perceptions of the seriousness of the problem

The majority of the participants perceived the mental health problem in the vignette as serious. Only a small number of participants thought the problem was not serious.

a) Perceiving the problem as serious

There were several reasons why the participants perceived the problem as serious. Firstly, the problem affects their physical health as well as education. Especially when such a mental health problem happens to the adolescent age group, it might drive them to develop negative behaviours and coping styles. It becomes more serious when no one helps them. The following were some of their comments:

> *"Because he's only 18 years old. At this age, it is easy to get into negative behaviours. If you are sad, you need to express it to someone that you like and one who is close. If you don't express your feeling, you will get sick, internally and physically… Secondly, you will be alone. I have a friend who did not share his feeling. He stayed in his room all the time. To cope with it, he started talking to himself. This can lead to mental issue."* (Male, Indian, 18)

> *"Why is it serious? Because it gives a lot of negative consequences to himself. Not only that, he has no appetite and that will affect his health. Then, he no longer focuses on his study. He cannot succeed."* (Female, Malay, 18)

> *"Serious. Because it interferes with his studies until he cannot focus. That's important."* (Female, Malay, 18)

For some participants, the seriousness of the problem was also related to difficulty in expressing the emotion or feelings to others and did not know what to do. The following were comments from two participants:

> *"Serious… As for myself, I do not have anyone to talk to openly. I will talk to my friends figuratively. But they do not understand. They do not really detect what I am trying to convey. I just cannot talk literally to them. If I am sad, I will talk to them in a figurative way."* (Male, Malay, 18)

> *"He* (referring to Ahmad in the vignette) *seems lost and does not know what to do. That's why the problem becomes serious. He is hoping for someone to help him but no one wants to."* (Female, Malay, 18)

While another participant believed that the seriousness of the mental health problem was due to the age group. Adolescents have a long future.

> *"For me, generally it is serious because he's just 18 years old. He has a long way to go. He cannot feel sad. Serious! He cannot feel sad because if he feels sad it will affect his lifestyle as an 18-year-old boy."* (Male, Malay, 19)

b) Perceiving the problem as not serious

Three participants believed the problem was not serious. One participant described the problem as not critical and a small matter that can be handled by relaxation and calmness. While another participant mentioned that the problem would settle on its own because it was temporary in nature.

"Serious? I don't think so… Because he'll (Ahmad in the vignette) *be ok… Because I went through it. I've been unusually sad, but I'm ok after a few weeks."* (Female, Malay, 18)

*"Because… hmm… it is a small matter. He (*Ahmad in the vignette) *can handle it by relaxation and calm down. Just like that."* (Female, Malay, 18)

3) Perception of the causes of mental health problem

In terms of the causes of mental health problems, most of the participants gave answers based on their personal experiences. In the analysis, five themes emerged which were family disharmony, education-related problem, peers, love relationships or break ups, and spontaneous occurrence (without clear reasons) (Figure 4.3).

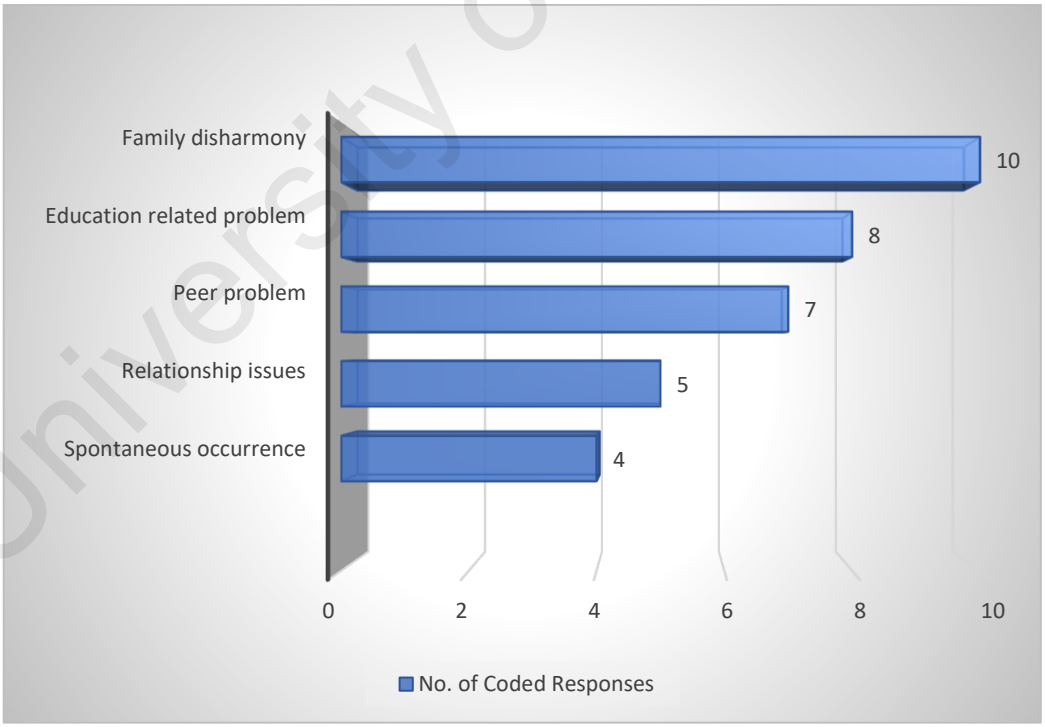

Figure 4.3: Perceptions of Causes of Mental Health Problem

a) Family disharmony

Family plays an important role in adolescent mental well-being. Family disharmony leads to various mental health problems. In this study, family disharmony was found as one of the main causes of mental health problems. The majority of the participants perceived that adolescent's mental health problem was related to family disharmony such as conflict or disagreement and unpleasant feelings between family members. These gave rise to stressful situations for the adolescents. The following are statements made by the participants on this theme.

> *"For me, what I see is that, most of the problems come from family. Those who have emotional issues, the source is the family."* (Female, Malay, 18)

> *"The second worse is my relationship with my father which is not good."* (Male, Malay, 18)

One participant mentioned there was disharmony between her parents for a long time that led to her emotional distress. Her mother was the primary breadwinner of the family, and that had a negative effect on the marital relationship and herself. Because of her work, less attention was given to the children in the family.

> *"I think my stress is actually caused by my family. From their treatment of me… I would say my parents' treatment of me, and our relationship. It has been since I was a child. Everyone is fighting. All because of money."* (Female, Malay, 18)

In addition, some of the participants mentioned that family disharmony was also due to their behaviour such as hanging out with friends, coming home late, not spending time with family and being rebellious. The following are some of their comments:

> *"Like what I said earlier, hanging out till late night, getting home late, spending time with friends more than family. They do not focus on their study. They take it easy when they are at home."* (Male, Malay, 18)

> *"We are rebellious during the teenage years. We are sensitive. We rebel maybe because we are stressed out due to studies and family issues."* (Female, Malay, 18).

Another participant commented about domestic violence in her family that made her depressed:

> *"After my brother got hit by my father, he ran away from home and he was bleeding. I could not eat, I was thinking about my brother. Did he eat? Where did he sleep? Was he fine? Did he stay with his friend? If his friend stays with his family, then he can't be possibly staying with them. The thought made me depressed."* (Female, Malay, 18).

b) Education-related problems

The second common theme was education related problems such as examinations, poor results and homework. All the participants are currently sitting for an important exam called STPM. One participant commented that the schedule was quite tight and they had no time to rest:

> *"Stress because of study. Besides, we do not have enough rest because teachers like to conduct night classes."* (Female, Malay, 18)

One participant shared about her friend being mocked by the teacher because of her poor results.

> *"My male classmate is depressed because our teacher likes to insult him. Our teacher likes to insult people who had poor results."* (Female, Malay, 18)

Despite having stress with daily lessons in school, one participant went through depression because he was unable to fulfill his ambition.

> *"Seriously, I don't want to do form six. I really wanted to go for foundation (course preparation in the college or university). I didn't get the course that I requested at that time. I requested for political science. Because my ambition is to be diplomat or immigration officer or police. When I didn't get what I want. I felt depressed"* (Male, Indian, 18)

c) Relationship issues

Some participants believed that relationship-related problems were among the causes of depression or other mental health problems. The following are some of the participants' comments:

> *"I know that people nowadays they are getting too involved in romance issues… Yes, relationship matters. So, yes things get worse when it goes to relationship matters."* (Female, Indian, 18)

> "*Teenagers nowadays have a lot of love relationship issues. Breakups or being abandoned by boyfriends.*" (Female, Malay, 18)

d) Peer problems

Adolescents are influenced by their peers. Some participants mentioned that their problems were caused by their peers. Some peers taught them harmful actions to relieve stress or problems. Adolescents also attributed their mental health problems to the peers:

> *"My friend taught me if I wanted to get rid of my stress, I had to cut my hand. Maybe I'll be ok."* (Female, Malay, 18)

> *"Normally, it is because of friends. My friend was isolated since form 2, and until now he has a personality disorder."* (Female, Malay, 18)

e) Spontaneous occurrence

Interestingly, four participants believed that the mental health problem especially depression can occur without a reason. Below are their comments on this theme:

> *"Logically, we get sad because of specific reasons. But sometimes, we happen to get sad without any reason. I don't know how to explain it."* (Female, Malay, 18)

> *"For me, sometimes it occurs without a reason. It occurs suddenly. Suddenly, I feel angry and have bad mood. I feel like staying away from people."* (Female, Malay, 18)

> *"The feeling is just like that. It comes like that."* (Female, Malay, 18)

4) Awareness about adolescents' mental health issues

Awareness of adolescents' mental health issues was evaluated during the in-depth interview by asking question, "Tell me what you know about mental health issues among

adolescents like yourselves". There were three main major mental health problems acknowledged by the participants namely emotional problems, behavioural problems and suicide.

a) Emotional problems

The most common emotional problems recognised by them were stress, depression and anxiety. Only a few participants mentioned other types of emotional problems such as personality disorder.

> *"Aaa… I have a friend. I know she had a borderline personality disorder."* (Female, Malay, 18)

Some participants knew it through their personal experiences such as family history with mental health illness or friends with mental health problems:

> *"I have a friend who has depression because people cannot accept her. She took antidepressant because of that."* (Female, Malay, 18)

> *"Depression. My grandmother has depression. She always takes a medication"* (Female, Malay, 18)

b) Behavioural problems

Social problems and substance abuse were the most frequently reported by the participants as behavioural problems. One of the participants mentioned about sexual identity problem:

> *"When I was in school, I had a friend. I can't remember, she was stressed out with her family or got influenced by her friend. She became a lesbian. Oh, yes! Now I remember. Her father cheated on her mother.*

Since that, she didn't like males. So, she became a lesbian." (Female, Malay,18)

Several participants mentioned having a friend who is a substances abuser:

"The current issue among teenagers is they easily fall into negative ways and immoral things. Like my friend who studied law at one of private universities. When he needed to submit his thesis in two days, he could not make it. It was so intense. Work increased and so did lack of sleep. So, he took 'weed'. 'Weed' made you active. When you inhale 'weed' it made you think a lot. He takes 'weed' until now." (Male, Indian, 18)

c) Suicide

Several adolescents were aware that suicide is one of mental health issue through various sources such as the social media, adult friends and peer supporter. One participant commented:

"Most common is suicide. Suicide is also sort of depression" (Female, Malay, 18)

4.4.7 Perceived Barriers to Seeking Help for Mental Health Problems

The third research question in this study was: what are the perceived barriers to seeking help for mental health problems among adolescents? In answering this research question, the analysis revealed 6 themes. Table 4.32 shows the number of participants for each emerging theme and sub-theme. The details of each theme are discussed in the following subsections.

Table 4.32: Perceived Barriers to Seeking Help for Mental Health Problems

Themes	Sub-themes	No. of coded responses
Attitudinal barriers	1. Concern about being judged or labelled	17
	2. Perception of professional is not able to resolve the issue	11
	3. Difficulty or unwillingness to express emotion	10
	4. Self-reliance	9
	5. Do not want to burden someone	8
	6. Fear of diagnosis	5
	7. Perceiving problem as not serious	4
Professional related barriers	1. Confidentiality and trust	10
	2. Concern about characteristic of the professional	10
	3. Professional competency	4
Logistics barriers	1. Financial concern	9
	2. Transportation constraint	6
	3. Far from home	5
	4. Time constraint	3
Negative experience with health provider	1. Long waiting time	7
	2. Negative experience with staff	4
	3. Crowded	3
	4. Unfriendly environment and appointment	2
Knowledge about seeking professional help	1. Not knowing where and how to get help	7
	2. Misunderstanding about treatment	2
Concern about parent	1. Parent's permission	4
	2. Worry parents will know	2

Theme 1: Attitudinal barriers

From the analysis, attitudinal factors emerged as an important barrier to seeking help for mental health problems among adolescents. Attitudinal barriers refer to participants' attitude about seeking professional help when facing emotional problems. Seven subthemes were identified namely concern about being judged or labelled, perception of professional is not able to resolve the issue, difficulty or unwillingness to express

emotion, self-reliance, do not want to burden someone, fear of diagnosis, and perceiving problem as not serious.

a) Sub-theme: Concern about being judged or labelled

Most of the participants were concerned about being judged and labelled by their friends, teachers, community or healthcare providers. They thought people might judge or label them as a bad or problematic or having mental illness if they seek help from professionals including the counsellor at school. This concern was closely related to their fear of what people might think or say when they were seeking professional help. Some participants were afraid that people around them would call them crazy. The following were some of their comments:

> *"If the public knows that we seek professional help, they might think that we're bad people. So, it's better for us not to seek help. If not, they might think negatively about you."* (Female, Malay, 18)

> *"Maybe they will think that I am crazy. They might think that I have a big problem is making me crazy. aaa… that's what I think."* (Female, Malay, 18)

> *"I was afraid to meet the counsellor because I didn't want the teachers to judge me. That's why I was afraid."* (Female, Malay, 18)

> *"As for me, when I sought help, society judged me. Oh, this girl had a problem, so don't be close to her. They think of me as a problematic girl, so they think of me differently."* (Female, Malay,18)

This kind of perception made a participant feel uncomfortable about seeking help in healthcare services:

"The hospital staff make me feel like I have a mental problem. When I waited for my turn, they would stare at me. It made me uncomfortable." (Female, Malay, 18)

Adolescents are connected to their friends most of the time. Thus, they are concerned about what their friends say or think. In this study, several adolescents were afraid of being mocked and labelled negatively by their friends for seeking professional help. This results in stress and hinders them from seeking help.

"When the researcher called me that day, my friends overheard our conversation. So, they said that the researcher called me because I had mental health problems. Some of them even said that I was gross and they were afraid to be close to me." (Female, Malay, 18)

One participant used a third party to explain what would happen if he sought professional help. He believed that people around him will ask and talk about it. This belief imposed a negative feeling and attitude, and resulted in discouragement and stress to the adolescents, which may worsen their mental health problems.

"Firstly, if it happens, he will get teased by his friends. When he is at home, he will get teased by his family. For example, eh… Do you go there (mental health services) *because you are crazy? He will get stressed out because of that. Also, when he meets the psychiatrist, he gets even more stressed out. Maybe he will laugh at that time. But deep inside he feels hurt. He feels ashamed. Then, when people keep asking why he meets the psychiatrist, he will get more upset. It does not reduce the stress but it adds more to the existing stress. At the end, he might do something silly after that."* (Male, Malay, 18)

b) Sub-theme: Perception of professionals is not able to resolve the issue

Several participants believed there was no benefit seeing a professional because professionals would only give advice, and that was not helpful enough. As a result, they preferred to seek help from people close to them. The following are some of the participants' comments.

> *"I don't know how to say it, I will think twice to see a professional. Most of my friends also will think twice to see a professional. Because they think the professional is not helpful. I don't know about others. This is only my opinion"* (Female, Malay, 18)

> *"… Even I saw in a movie, the doctor just talked and advised to go for sightseeing. All just give advices. So, I'm used to my parents especially my mother. She is better."* (Male, Malay, 18)

c) Sub-theme: Difficulty or unwillingness to express emotion

Another barrier for not seeking help is the difficulty expressing their feelings or emotions. Sometimes, they were not willing to share their problems. Several reasons explain such behaviour. First, they felt ashamed because others might look at their problem as not serious and pretentious. They also felt ashamed if their problem was not entertained:

> *"Because of shame. I felt ashamed to tell them. I felt ashamed because I was afraid if they didn't want to listen to me."* (Female, Malay, 18)

Second, some participants stated that they were not used to sharing their feelings. It made it harder to share their emotion especially with somebody they perceived as stranger or outsider. Some participants commented:

"I am not used to it. For example, I am not used to sharing anything with my parents. They never asked about my feelings. I do not socialise much. So, it's hard for me to get along with outsiders. I do not share my problems with strangers." (Female, Malay, 18)

Third, the reason why it was difficult to express their emotion was because participants were afraid people do would understand how they felt. They believed that they were the only one who knew and understood the problems.

"My concern is, if I go and see them (professionals), I am afraid to tell them what I feel and what I went through. I am afraid if they would not understand how I feel." (Female, Malay, 18)

The environment also plays an important role for them to open up to professionals. One participant expressed her concerns.

"If I'm not comfortable with the environment and especially the person I'm meeting with…because the first impression is the best impression. So, if I'm not comfortable with that person and the environment, then nothing is going to come out from my mouth." (Female, Indian, 18)

This unwillingness to express their feelings or emotions resulted in participants handling their own problems.

"I think I don't want to express my feelings. I can handle this problem on my own" (Male, Indian, 18)

"I'm not ready to tell anyone. I'll solve the problem by myself" (Female, Malay, 18)

d) Sub-theme: Self-reliance

Participants often reported that they chose not to seek help because they preferred to solve their problems themselves. In addition, participants thought they were mature enough to solve the problems. They also had their way of solving issues, and were mature enough to think about it. This theme was reported more by the male participants compared to female participants.

> *"This is my problem. Why do I need to refer to someone else? I have my own solution."* (Male, Indian, 18)

> *"Because I think this is my problem. I am able to solve it."* (Male, Malay, 18)

> *"I'll go if the thing is getting worse and needs medication. If it's just a talk, I'll not go. Because I'm mature enough to think on my own."* (Male, Malay, 18)

Besides, some participants believed that they could solve their problem on their own because they perceived others as not helpful and having their own problems.

> *"For me, I can settle myself and maybe others are not really helpful."* (Female, Malay, 18)

> *"Try to change on my own. Sometimes, if I want to tell my problem to others, I feel like they have their own problems too. When we talk to others, we just add more problems to them. I don't want to do that."* (Female, Malay, 18)

e) Sub-theme: Do not want to burden someone

Worrying about burdening someone with their problem is another barrier that stops adolescents from seeking help. Several participants were concerned about putting the burden on their family and friends as they have their own problems. The following were some of their comments:

> *"If I talk to other people, they also have their own problems. When I talk to my mother about these things (problems), my mother already has her own problems which are bigger than mine. When I talk to my brother, I feel it is unfair to talk to him."* (Female, Malay, 18)

> *"I'm worried it may lead to mental problems. I'm afraid of that. I don't want my parents to worry. That's' it."* (Male, Malay, 18)

> *"I'm struggling to ask for help from others because I feel so embarrassed. Because I'm afraid my problem would burden others."* (Female, Malay, 18)

f) Sub-theme: Fear of diagnosis

Fear to be diagnosed with mentally illness appeared to be one of the themes in the data analysis. However, there was a misunderstanding regarding the method of diagnosis. Two participants mentioned diagnosis using scan and MRI. The following are the participants' comments:

> *"If I meet a psychologist, I am afraid that I have brain problems. Because I had blood clot before. So, I am afraid the blood clot is still there. I had watched in television about people doing MRI. He was detected to have brain problems. I'm afraid to be in that machine. MRI is used to look at*

the person's brain. To see either it is green or yellow or red. For me, I'm afraid to go in there because it can read other people's brain." (Male, Malay, 19)

"If they scan my brain, I am afraid if they say "eh, your brain is not normal." (Female, Malay, 18)

g) Sub-theme: Perceiving problem as not serious

Some participants thought that their problems were not serious or other people might see the problem as trivial or pretentious. One participant mentioned three times in the interview that her problem was unimportant and not serious. As a result, she believed that she could solve the problem herself. The following is the participant's comments:

"I'll not seek help when I am having problems. Definitely not! The problem is not important… I don't want to go (see professional) because I think this is a small matter. I can solve it myself… What should I tell (professional) when I go there? It's just a trivial issue." (Female, Malay, 18)

Peers also play a role in adolescents' perception of the seriousness of the problems. Help-seeking can be directly or indirectly influenced by peers. An example of direct influence is when a friend says that the problem is a small matter, while indirect influence occurs when adolescents witness their peers' help-seeking behaviour while facing similar situations.

"I never see any of my friend who has the same problem, going and seeing a professional. That's why I think my problem is not serious…

Some of my friends advised not to seek help (professional help) because it is a small problem." (Female, Malay, 18)

Theme 2: Professional related barriers

Another commonly reported barrier was the professional-related barrier. Some participants voiced their concern and doubt about the health professionals with regard to their personal characteristics, competency and ability to keep information confidential.

a) Sub-theme: Confidentiality and trust

Another commonly reported barrier was the lack of trust in the professional helper and concern over breach of confidentiality. Adolescents believed that professionals would disclose or share their problems with other people. Additionally, a trust issue was raised, not specifically concerning professionals but included teachers, friends and family. The following are some of the comments:

"I'm afraid if I tell the specialist, they are going to tell someone else." (Female, Malay, 18)

"For all this while, I know the teachers are talking about students in the teacher's room. So, I was like… if I meet a counsellor I was addressed as a bad girl. Then I also don't know how teachers keep the secret. That's why the students did not want to go (to see professional)." (Female, Malay, 18)

"… What if I talk too much, what if I cry, what if the doctor would tell others. So, that's the thing." (Female, Malay, 18)

There was also a conflict when the doctor is somebody close to them such as relative:

"I'm afraid because the doctor is my cousin. She will tell my mother that I have a mental health problem." (Male, Indian, 18)

Lack of trust resulted in participants seeking help from informal sources such as family and friends. Participants preferred to talk to someone that they trust.

"I want to share my problems with someone whom I trust. As for counsellor or psychiatrist, hmm… but I think it is better to talk to someone that I know like my parents." (Male, Malay, 18)

"If I told them (professional), I have doubt whether they can be trusted or not. Though I trust my friend more than them." (Female, Malay, 18)

b) Sub-theme: Concern about the characteristics of the professional

The data analysis revealed that the characteristics of the provider could deter adolescents from seeking help for mental health problems. This included features such as age, gender, friendliness, and whether they were known or close to the adolescents. Age gap and gender differences of the professionals made them feel uncomfortable.

"I am not close to the counsellor. In my previous school, I was close to one of the counsellors. He was not quite different from us and could mingle with us. But this counsellor is old and the age is quite different from us. The way of his thinking is different from us. Some of them are 40s and some of them are 60s. So, I am not comfortable to share with the counsellor because of the age difference." (Female, Malay, 18)

Closeness and familiarity play a role in help-seeking. In addition, friendliness helps the adolescent to open up and share their problems.

"The thing I'm concerned about most? Maybe the fact that I am not close to the doctor. So, when I tell him my problem, I don't know if he believes me or not. Whether he can accept whatever that I say." (Female, Malay, 18)

"It is difficult to see the school counsellor. Because he doesn't teach Form Six so he is not close to form 6 students. We are not close to the teachers. That's why it is difficult to see the counsellor." (Female, Malay, 18)

"When I asked the doctor, the doctor looked stern. He did not smile at all. He made me afraid to ask. So, if he asked me a word, I would answer him with a word too." (Female, Malay, 18)

One participant suggested that the professional should be friendly and approachable. Therefore, adolescents would feel more comfortable to talk about their problems. To reduce this barrier, the professional should treat adolescents as friends.

"If the counsellor is a happy-go-lucky and cheerful person, she does not need look for the students. If she is like that, the students will look for her. She needs to be the students' best friend. Even if her level is different, she needs to be students' best friend because best friend is better, aaa... it is easy for them to share. Sometimes even the students look normal, but when they have their best friend, it is easier for them to talk. Don't need to be so formal. We can laugh together. That's what I feel." (Male, Malay, 18)

c) Sub-theme 3: Professional competency

One participant believed that professionals have no skills in dealing with emotional problems.

> *"Not all counsellors are professional in dealing with emotional problems. For me, counsellors only know about school-related issues. I was a peer support before. So, I have talked to them (counsellors). Their (counsellors) aim is to train students academically and to improve their learning. All the focus is on the students' performance only. For example, if the students had problem in the class, they know how to help them.by giving tests to ensure that the student is interested to learn. If there is an emotional problem, not all counsellors can solve it."* (Male, Malay, 18)

Another two participants highlighted their experiences seeking help for physical illness. Instead of being diagnosed, they were asked about their illness by the doctor. Participants believed that professionals were not competent enough in dealing with their complaints and physical illnesses.

> *"When I met the doctor, she asked me about my illness… I felt strange (surprise face). She was the doctor but she asked what was my illness. Then, ahhh… I said that I didn't know. She was angry with me. Then, I said my stomach hurt. Then, she asked whether I had fever or not. I said I did not know. She said I knew nothing. I said that you are the doctor and you should know."* (Female, Malay. 18)

> *"I have an experience seeing a doctor. They ask me about my illness. How do I know?"* (Female, Malay, 18).

Sometimes adolescents see the doctor for physical illnesses and complaints instead of mental health problems. Thus, it is important for a professional to capture the history of a mental health problem during the visit.

> *"When we are sick like having fever, we expect more than just treatment from the doctor. We also want the doctor to give advice. At least we want the doctor to ask what our family should ask (their underlying problem). Since our family doesn't ask, we are hoping the doctor would ask."* (Female, Malay, 18)

Theme 3: Logistic barriers

From the interview, logistic issues emerged as an important barrier to seeking help for adolescents' mental health problems. Under this theme, the analyses were conducted with a specific focus on searching for any information regarding logistic issues faced by the participants while seeking for help. Four sub-themes were identified in this process, namely financial concerns, transportation constraint, far from home, and time constraint.

a) Sub-theme: Financial concern

Nine participants were concerned about the fees that they had to pay to the professional service such as psychiatrist if they sought help for mental health problems. They believed that the fee would be expensive. As a student, they could not afford it. One of the participants mentioned that he might need to ask for money from his parents. With that, his parent may find out about his/her mental health problems.

> *"I'm afraid the cost is high. Then I have no money. I have to ask from my parents. When you ask for money from parents, you need to tell them.*

Then they will ask you why you want to see him (professional).” (Male, Malay, 18)

Besides, two participants stated that seeking professional help is a waste of money. Participants believed that emotion-related problems could be solved on their own such as using spiritual approaches like praying. The following conversation highlights the use of the spiritual approach:

“Because it is a waste of money… Because it’s an emotional problem. Hmm... how to say it. Rather than getting help from others, it is better for us to solve it on our own. Like, we have religion. Our religion teaches us how to keep away from anger and sadness. So, it is better if we do that way and it is free.” (Female, Malay, 18).

b) Sub-theme: Transportation constraint

Transportation is one of the participants’ concerns in getting help. Most of the participants were depending on their parents and public transport. It leads to difficulty in getting help from professionals. The following are some of the participants’ comments:

“I also have no licence. So, didn’t have a vehicle which made it more difficult. So, I think no need (seek help). It’s ok and let’s put it aside first.” (Female, Malay, 18)

One participant decided to use public transport because she did not want to burden her father. However, she had to wait for a long time to get the public transport to go to the hospital.

"I took a bus… But I have to wait for a long time. I don't want to bother my father because he is working. This is my problem. So, I better go by myself."

c) Sub-theme: Far from home

Another logistics reason that made it difficult to seek help from professionals is that the available services were far from their home. Because of this, they needed to consider transport and money.

"If there is a free government service, it is far away from my house. In my lifetime, I had sought help there once but it was so far from my house." (Female, Malay, 18)

"Firstly, it (healthcare facility) *is far away. I have no transport as well because my father is always working. I am afraid that I have to pay them* (for professional services)*. So, I decided not to seek help."* (Female, Malay, 18)

d) Sub-theme: Time constraint

Participants reported that they had no time to see professional because of the tight learning schedule at school. Sometimes the time is not suitable as they have class.

"Another one, it involves time. Sometimes the time is not right. Sometimes it is during working hour. I do not have time." (Male, Malay, 18)

"I never met the schools' counsellor because there was no time at school. The time period was too packed. If I wanted to meet after recess time, there was a class. Or I might go back at that time." (Male, Malay, 18)

Theme 4: Negative experiences with healthcare providers

Participants were asked about their experiences seeking help from healthcare services for mental health problems. The majority of them never had any experience using it for mental health problems. So, they were asked about their general experiences dealing with healthcare providers for any illness other than mental health problems. From their experience, they were asked if they were interested in using it for their mental health problems. Based on the IDI, four negative experiences emerged namely negative experiences with the staff, long waiting time, overcrowding, unfriendly environment and too many appointments to see a professional.

a) Sub-theme: Long waiting time

Several participants were not interested in going to the healthcare services due to their bad experiences with the waiting time. Because of that, they only sought help from healthcare services when they had obvious symptoms such as physical illnesses. One participant who had experience getting treatment for his mother at Hospital P, mentioned he would go if he has physical illness rather than emotional problems.

> *"It was very slow. There was a time I came and returned home early morning. And there was a time I went in the morning and back home in the evening. That's what made me fed up. I'll go to the hospital if I'm sick like this (physical). It's very 'mengada-ada' (dramatise) to go for emotional problems."* (Male, Malay, 18)

The other two emerging sub-themes were unfriendly environment and frequent appointments. Both experiences resulted in not seeking help from healthcare services. The following are the participants' comments:

"With that experience in the hospital A, do you think you are going to see them again?... I mean that the environment is a clinic environment (psychiatric clinic). I feel like I am a mental patient. The environment was not fun. I really hate that environment because I still remember the smell of this medicine and the environment. Yeah, that's the thing." (Female, Malay, 18)

Theme 5: Knowledge about professional help-seeking

Knowledge about professional help-seeking was found as one of the barriers in this study. Three sub-themes emerged; not knowing where and how to get help and misunderstanding about treatment. These sub-themes were reported by participants as follows.

a) Sub-theme: Not knowing where and how to get help

Knowledge about how and where to get help plays an important role in help-seeking. Several participants in this study reported that they did not know who to approach, and where to find professional help. Also, participants did not know how to seek help in terms of procedure and whom to meet especially in the clinic or hospital setting. Thus, some of them sought help from friends or counsellors at school instead of professionals at healthcare facilities.

"Emm... I feel like, how can we meet the specialist? We don't know. For the procedure, I don't know where to head to, whether to come to the hospital alone or to make an appointment or to write a letter." (Female, Malay, 18)

"Secondly, I don't have the knowledge. I have no idea where to look for it. I don't know how to choose a right one (professional)" (Male, Malay, 18)

b) Sub-theme: Misunderstanding about treatment

One participant misunderstood the treatment for mental health problems, due to some misleading information. Another participant was concerned about the effectiveness of the treatment. The following are the participants' comments:

"My friend said that they (professionals) will electrocute me. I am afraid of that. You'll be OK after they give you an electric shock. Some people are nervous and afraid. That's the reason why I am not interested to go to healthcare facilities." (Male, Indian, 18)

"I am afraid it (treatment) is not effective for me. It does not give a full recovery. So that's why I think it's worthless to go there (healthcare facilities)." (Female, Malay, 18)

Theme 6: Concern about parents

Adolescents aged between 18 to 19 years have a right to seek help from professionals in the absence of their parent or guardian. However, there were a few participants who expressed their concern that they need to ask their parent's permission before seeking professional help. This resulted in a participant seeking help from her friend instead of a professional. In addition, participants were worried that their parents would know if they sought professional help for mental health problems.

"Because I barely go out from my house. My father likes to ask around. That's why I share my problem with my friend." (Female, Malay, 18)

"Getting help?! The main reason (do not seek help) I don't want my parents to know." (Female, Malay, 18)

4.4.8 Summary of Barriers to Seeking Help

The perceived barriers to seeking help for mental health problems can be summarised into intrinsic and extrinsic barriers. Intrinsic barriers refer to personal belief, emotion, cognitive and behaviour. Extrinsic barriers include availability, accessibility and acceptability of the services. It is summarised in Table 4.33.

Table 4.33: Intrinsic and Extrinsic Barriers to Seeking Help for Mental Health Problems among Adolescents

Perceived barriers to seeking help for mental health problems	
Intrinsic barriers	**Extrinsic barriers**
1) Attitudinal barriers • Concern about being judged or labelled • Perception of professional is not able resolve the issue • Difficulty or unwillingness to express emotion • Self-reliance • Do not want to burden someone • Fear to be diagnosed • Perceiving problem as not serious **2) Knowledge about seeking professional help** • Not knowing where and how to get help • Misunderstanding about treatment	**1) Logistic barriers** • Financial concern • Transportation constraint • Far from home • Time constraint **2) Professional related barriers** • Confidentiality and trust • Concern about characteristics of professional • Professional competency **3) Negative past experiences with healthcare provider** • Long waiting time • Negative experience with staff • Crowded • Unfriendly environment and appointment **4) Concern about parent** Parent's permission Worry parents will know

4.4.9 Summary of Individual Factors Affecting Help-seeking Behaviour and Barriers to Help-seeking from Qualitative Phase

The following Figure 4.5 summarises the findings of individual factors for, and barriers to mental health help-seeking in a framework. The individual factors that influenced help-seeking behaviour and services utilisation for mental health problems were listed according to Andersen Behavioural Model. One factor was found for each main factor which were mental health literacy for predisposing factor, awareness of the available resources for enabling factor, and perceived need for help for need factor. Nevertheless, there are factors that may prevent adolescents from getting help for their mental health problems. These barriers were categorised into intrinsic and extrinsic.

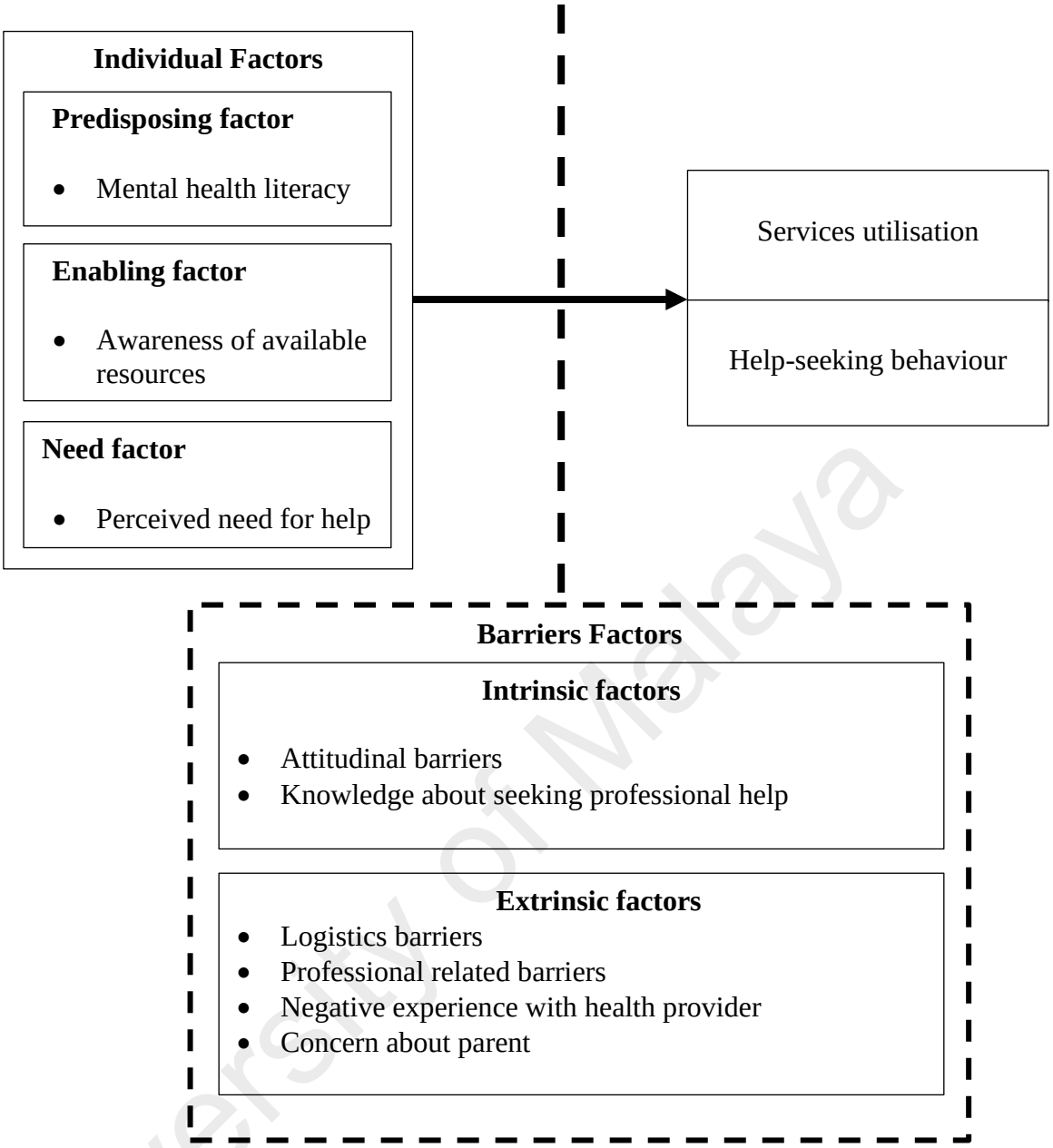

Figure 4.4: Framework of Individual Factors and Barriers of Mental Health Help-seeking

4.4.10 Summary of Findings of Qualitative Phase

In summary, many important findings concerning the mental health help-seeking behaviour of adolescents were revealed in this study. In terms of help-seeking behaviour, friends were the most common source of help. Friends were described as trustable, understanding and non-judgemental. The family was the second most common source of help. Connectedness and sharing a similar problem were the main reasons for seeking family help. On the other hand, professional help was less common; it was only sought

after being advised by family members or friends. The qualitative phase also revealed that more than half of the participants were aware of the available resources for mental health problems, the most common being counsellors, followed by doctors and teachers. In addition, all participants in the interview perceived the need for help. The need is influenced by the severity of the problem and readiness to talk about the problems. Mental health literacy was another important finding which determined help-seeking. More than half of the participants recognised the common mental health problems and their causes.

Two main barriers hindering help-seeking or utilising the professional help were intrinsic barriers and extrinsic barriers. Intrinsic barriers were related to belief and attitudes towards help-seeking as well as fear of being labelled. Meanwhile, extrinsic factors were related to accessibility, acceptability and availability of professional help and services.

4.4.11 Methodological Triangulation

To ensure the validity of the qualitative findings, methodological triangulation was performed. The themes that emerged from the qualitative study were compared to the results from the quantitative study to identify the degree of similarity and interconnectedness. Corroborative counting of qualitative data was used to verify the findings reached by quantitative and qualitative analysis of the data. Results are more robust if similar findings occur in two separate processes. In addition, the supplementary counting of qualitative data was also used to enable the researcher to develop new insights into the topic of interest (Hannah & Lautsch, 2011).

1) Help-seeking behaviour

In the qualitative findings, adolescents admitted that friends were the main source of help if they faced psychological or emotional problems. While, family was the second

most common source of help among the adolescents. This was followed by no one, relatives and counsellor. These findings are supported by the results from the quantitative phase that the majority of the adolescents reported that they sought help from friends and family when having mental health problems (Table 4.33). Another quantitative finding on the preferable sources of help showed that 292 (38.5%) of the adolescents preferred to seek help from friends and 364 (48%) from family members (Table 4.34).

Table 4.34: Help-seeking behaviour among the Adolescents from Quantitative Study: Sources of help

Help-seeking behaviour	Sought, n=758
Friends	602 (79.9)
Parents	521 (69.2)
Siblings	311 (41.3)
Relatives	142 (18.9)
Teacher	248 (32.9)
Counsellor	83 (11.0)
None	46 (6.1)

Table 4.35: Preferable Sources for Help from Quantitative Study

Help-seeking behaviour	Preferable, n=758
Friends	292 (38.5)
Family	364 (48.0)
Counsellor / Teacher	8 (1.1)
Others	2 (0.3)
None	92 (12.1)

2) Awareness of resources

More than half of the participants in the qualitative phase were aware of the available resources for mental health problems namely the school counsellor, doctor, teacher and psychologist. This finding was supported by the quantitative phase as shown in Table 4.35. This finding was also validated by the multiple logistic regression analysis in the quantitative findings where there was a strong association between awareness of the

available resources and mental health services used. Adolescents aware of the resources were more likely to seek help from mental health services.

Table 4.36: Awareness of the Available Resources: A Quantitative Findings

Resources	Percentage of the Respondents
School counsellor	72.8%
Government health clinic	33.9%
Government hospital	27.6%
Psychiatric clinic	30.9%
Private psychiatrist or psychologist	27.7%

3) Mental health knowledge

In the qualitative findings, several adolescents perceived that family disharmony, education-related problems, love relationships or breakups and spontaneous occurrences were the leading causes of mental health problems particularly depression. This is similar to the findings of the quantitative component of mental health literacy on the perceptions of causes of depression (Table 4.36).

Table 4.37: Percentage of the Knowledge on the Causes of the Depression in Quantitative Component

Causes of depression	Percentage of the respondents
Family disharmony	426 (56.2)
Failure in achievement	619 (81.7)
Examination	494 (65.2)
Relationship break up	379 (50.0)
Occurring automatically	171 (22.6)

4) Self-reported experience of depression

Eight adolescents in the qualitative phase reported experience of depression. This finding was confirmed by the survey results, which showed that more than 50% reported having experience of depression. The finding was further validated by the outcome of

factor associated with mental health service use from multiple logistics regression in the quantitative component, whereby adolescents who self-reported experiencing depression were more likely to use mental health services compared to those who did not experience any depression.

4.5 Conclusion of Chapter 4

The analysis found that 53.2% of adolescents had sought help from services regardless of their mental health status. The majority of adolescents sought help from informal sources. Only 3.7% of participants sought help from formal sources. Adolescents preferred to seek help from friends and family members. With regard to mental health status, among adolescents with abnormal mental health status (N=277), only 59.2% sought help from services. Findings from the logistic regression analysis indicated that knowledge about symptoms of depression, self-reported experience, awareness of the resources and perceived need for help were associated with seeking help from formal and informal mental health services. Findings from the qualitative phase indicated that friends and family are the main sources of help for adolescents' mental health problems. Awareness of available resources, perceived need for help and mental health literacy are the individual factors that determined adolescents' help-seeking for mental health problems. There are a few barriers that prevent adolescents from seeking professional help; the main one being the fear of being judged and labelled. This is followed by logistics barriers, negative experiences with a healthcare provider, perception of professional help being unuseful, confidentiality and trust issues, difficulty or unwillingness to express emotion, and concern about the characters of professional. These barriers are summarised into intrinsic and extrinsic barriers.

CHAPTER 5: DISCUSSION

5.1 Introduction

The present study focused on the help-seeking behaviour of adolescents, factors related to mental health service utilisation and barriers to seeking help for mental health problems. This chapter provides an interpretation of the findings obtained from the mixed-methods study. Findings from the quantitative and qualitative study are discussed concurrently. It reflects how the data is interconnected and supported each other to answer the research questions. In this study, the quantitative phase was used to answer research questions about the adolescents' help-seeking behaviour and factors that associated with mental health services use. While, the qualitative phase gave in depth understanding about barriers to seek help. The discussion in subsequent sections is organised based on these three research questions and themes that arose from data analysis. Following discussion are the implications of the study findings, and strengths and limitations of the present study.

5.2 Characteristics of Adolescents in This Study

In this study, the majority of adolescents were females with a 4:1 ratio. More than 50% of males and females sought help from any services for their mental health problems. The proportion was slightly higher among males compared to females. However, the result showed no significant difference between these two groups. This relates to their attitudes towards seeking professional help, whereby there was no difference in attitudes for both males and females (p-value 0.76). In contrast, Bing et al. (2015) studied adolescents in secondary schools in Penang and Ipoh, Perak aged 13 to 18 years and found that females were more likely to seek professional help (Bing et al., 2015). However, this study was not assessing the actual help-seeking behaviour; it only measured the willingness to, or attitudes toward seeking professional help for psychological problems. There is no other similar study in Malaysia to compare this result. Other international studies also showed

that males were less likely to seek help for mental health problems compared to females (Al Riyami et al., 2009; Benjet et al., 2016; Cakar & Savi, 2014; Cheung et al., 2009; Eisenberg et al., 2007; Eisenberg et al., 2012; Eisenberg et al., 2011).

The proportion of gender in this study was skewed, where majority of them were females (more than 70%). Form Six is also considered higher education. It offers a certificate called *Sijil Tinggi Persekolahan Malaysia* (STPM), also known as Malaysian Higher School Certificate. The education system is very much similar to pre-university, college, matriculation, foundation study, A-level, and O-level (Malaysia. Ministry of Education, 2018). In Malaysia, evidence showed that females are more likely to pursue higher education compared to males, since males are either in employment sector or unemployed (Clark, 2018). These characteristics may affect their help-seeking behavior when compared to populations in other countries.

The ethnicity distribution in this study was: Malay (80.9%), Chinese (5.21%), Indian (9.8%) and others (4.2%) consisting of indigenous ethnic groups. Given the unequal distribution of the ethnic group, the result needs to be interpreted cautiously. In the present study, the proportion of those who sought help from mental health services was higher among Malays. This unequal distribution is to be expected because this study has a high percentage of Malays. This is because the current study was conducted in a government secondary school where the majority of Form Six students were Malay.

More than 50% of adolescents in each ethnic group sought help from mental health services except for Chinese who showed a slightly lower percentage, 41%. This reflects the smaller number of Chinese students and their lower percentage of abnormal DASS compared to other ethnic groups. In addition, this study was conducted in the government secondary schools where majority of the students were Malay and a smaller percentage

consisted of Chinese and Indian. However, there was no significant difference between Malay, Chinese, Indians and others with regard to service utilisation.

Interestingly, the current study found that none of the Chinese participants sought help from formal mental health services. Many factors contributed to this phenomenon. First, despite of the small number of Chinese participants, more than half came from low income families (RM1000-1999) with a parental background of secondary education, working as non-professionals or being unemployed or self-employed. Second, approximately 50% reported never experiencing depression. Third, all Chinese participants reported having moderate to high family support. It was shown in the univariable analysis that those with moderate to high family support were less likely to use mental health services for mental health problems. In comparison to other ethnic groups, the majority of Chinese participants perceived very good and good general health, did not perceive a need for help, and having normal DASS score.

The majority of adolescents in this study were living with their parents (87.5%), and 90% of their parents were married. They were found to have a higher proportion of seeking help from any services. Similarly, study among Australian adolescents found that 50% who were more likely to seek help, were among those who lived with their parents (Jorm et al., 2007). Family structure plays a role as a support system for the adolescents. In contrast, studies in secondary schools in New Zealand showed that those living in a single parent family were likely to seek help from GP for their mental health problems (Mariu et al., 2012; Ryan et al., 2014).

This study found that a larger family size has a higher proportion of seeking help from mental health services. One likely explanation is that a larger family size has higher social support (Mannion, 2013). Similar to this study, adolescents with a family size equal to, or more than four tend to have moderate to high family support. However, there was no

significant association found (p-value 0.81). In Malaysian culture, collectivism is often valued over individualism, thus families are given more importance than individual interests This promotes values of cooperation, helpfulness, interdependence and interpersonal relationship. Such values develop strong social support in the family (Keshavarz & Baharudin, 2009, Sumari et al., 2018). Evidence showed that those with higher social support from family members were more likely to seek professional help (Wu et al., 2012, Andersson et al., 2013). The Some studies reported that adolescents who are living in bigger family have higher risks of mental health problems (Grinde & Tambs, 2016). That explained why the proportion of seeking help is higher among this group. However, a study among Australian high school adolescents reported that number of siblings did not influence service utilisation (Ryan et al., 2014).

Several studies have shown that those with a family history of mental disorder were more likely to seek help and use mental health services for their mental health problems (Prokofyeva et al., 2013; Villatoro & Aneshensel, 2014). The current study found that adolescents with a family history of mental disorder were more likely to use services for their mental health problems. It showed that more than 60% adolescents with a family history of mental disorder sought help from mental health services compared to those who did not have or did not know about the family history of mental disorder (64.5% versus 35.5%). The family history of mental disorder may facilitate help-seeking behaviour through awareness of mental health problems and knowledge about help-seeking resources and access to services (Villatoro & Aneshensel, 2014). Besides, the majority of adolescents reported that they did not have or did not know about the family history of mental disorder. One possible explanation is that they were not familiar with, or did not fully understand the meaning of mental disorder, or they did not want to disclose having a family member with a mental disorder (Hassan, Hassan, Kassim, & Hamzah, 2018). Also, mental illness is still regarded as taboo for many (Chong et al., 2013). As regard

parents' educational and occupational status, these two factors did not influence service utilisation.

In general, school-going late adolescents (18 to 19 years old) may play a role in terms of seeking help for mental health problems. This study reported that adolescents were more likely to seek from friends, followed by family members. Evidence from previous study showed that late adolescents preferred to seek help from friends or partners, while young adolescents preferred to seek help from family members (Rickwood, 2012). The help-seeking nature would also differ for adolescents who are 'Not in Education or Employment or Training (NEET), given the risks for adverse economic, health and psychosocial outcomes (Iyer et al., 2018). The NEET adolescents may not access mental health services or delay help-seeking because of marginalisation and disengagement from service providers (Scott et al., 2013, Ose & Jensen, 2017, Iyer et al., 2018).

5.3 Help-seeking Behaviour of Adolescents

The first research objective of the present study was to describe the adolescents' help-seeking behaviour for mental health problems. The analysis found that more than 50% of adolescents aged 18-19 years had sought help from any of the services; formal and informal services in the past 12 months regardless of their current mental health status. Of these, only 3.7% of participants sought help from formal mental health services. This is a seemingly low rate of service use even though Malaysian adolescents had access to mental health service such as primary care. To our knowledge, there are no similar studies conducted in Malaysia to which comparison can be made. The low proportion of adolescents who sought help from formal mental health services in this study is consistent with international studies, or even lower. Previous studies found less than 40% of adolescents sought help from formal mental health services for mental health problems (D. Eisenberg et al., 2011; Goodwin et al., 2016). A study conducted in one district in

Malaysia looking at utilisation of primary health care for mental health problems among school-going adolescents showed that none of the adolescents sought help from primary health care (Aida et al., 2010). However, as the study only assessed help-seeking in primary care, it may have overlooked other mental health services. The small number of adolescents seeking formal mental health services (in health facilities) in this study may be ascribed to the fact that their schools are equipped with counsellors and school health teams. Thus, Malaysian adolescents may have sought help through available services at school prior to reaching health facilities. This is supported by qualitative data where more than half of the adolescents were aware of counsellors as their main source of help for mental health issues. Provision of counseling in the school setting is associated with reduced help-seeking in formal mental health services (Green et al., 2013). However, a relatively good number (53.2%) of Malaysian adolescents sought help from any services for their mental health problems. This may be a good sign, reflecting a positive attitude toward help-seeking.

With regard to the mental health status evaluated using DASS, among adolescents with an apparent mental health problem, about 60% had sought help from services including formal and informal mental health services in the previous 12 months. However, of these, adolescents who sought help from formal mental health service was extremely low - 6.9%. This was similar to the rate found in the previous studies conducted among school-going adolescents aged 14 to 23 years, where 2% to 9.4% sought formal help (Al Riyami et al., 2009). However, it is important to note that differences may be ascribed to variances in the definition of mental health services, differences in the adolescent age, and measurement used to assess mental health status. This study noted that 49.7% of adolescents with normal DASS scores also sought help. Discrepancies might be due to the differences in time frame; DASS questions were based on occurrences in the past one week, while utilization of mental health services was assessed in the past 12 months.

Despite lower rates of formal mental health services use, more than 50% of adolescents with abnormal DASS sought help from informal services, which included school counsellors, teachers, religious people, helpline counselling, NGOs and mental-health related website. This may be due to the fact that almost all schools in Malaysia are equipped with counsellors who can help adolescents with mental health issues at school. Additionally, it is easily accessible and familiar to the adolescents. Adolescents may also prefer to seek these informal sources rather than formal services in dealing with mental health problems due to culture taboo related to mental health problems (Chong et al., 2013; Hassan et al., 2018). In Malaysia, the culture of an ethnic group may have a strong influence in defining mental illness. For example, in Malay culture, mental illness is known as '*gila*' (insanity) or '*sakit jiwa*' (illness of the soul). Malay society also believes that mental illness is associated with spirit possession and social punishment. Among the Chinese and Indian ethnic groups, mental illness is related to imbalance of the mind and body elements (Hassan et al., 2018). For that reason, many of them seek help from religious practitioners or traditional healers rather than mental health professionals. Seeking help from these sources can be good if they are equipped with mental health knowledge. Adolescents who seek help from them can be guided and directed to appropriate formal mental health services. Seeking help from informal services was considered acceptable and participants show a positive attitude and willingness to seek help for their mental health problems. However, the percentage was expected to be higher due to availability of, and accessibility to these services.

Regarding formal mental health services, this study provides information on the type of facilities used. Government general hospital (46.4%) was the most common service utilised by adolescents. This was followed by a healthcare clinic, private clinic or general practitioners (GPs) and private hospital. All these services are well established and known to adolescents. In line with Malaysia's effort to decentralise and bring the mental health

services close to the people, since the year 2000 the mental healthcare has been integrated into the primary care level (Chong et al., 2013; Haniff, 2000). Our study also provides information on the type of professionals met by adolescents during the visit. The list of professionals was self-reported by the participants. About 40.7% of adolescents reported they had met counsellors or social workers. This was followed by psychiatrists, psychologists, and family medicine specialists. The findings concur with a previous study that psychiatrist, psychologist and psychotherapist were the most frequent type of professional support received (Goodwin et al., 2016). A National Survey of Mental Health and Well-being in Australia showed that more participants were seeing a general practitioner and psychologists (Burgess et al., 2009). However, both studies may not be directly comparable to the Malaysian setting due to different mental health services provision.

Informal mental health services in this study were provided by school counsellors, teachers, religious people, helpline/ hotline, websites and NGOs. School teacher was the most common informal services used (32.9%). Surprisingly, the school counsellor was less common compared to the school teacher. This discrepancy is explained in the qualitative phase of this study where adolescents felt that the teacher was closer and trustable to them. This can be attributed to the daily interaction in the class. In addition, those who sought help from the school counsellor were seen as problematic. Thus, adolescents hold a negative attitude toward school counsellors, and this inhibited them from seeking help. Some participants were concerned about the characteristics of the school counsellor such as age and gender. Our study findings are inconsistent with another previous study which found that adolescents sought help from the school counsellor more than the teacher (11.9% versus 9.7%) (Aida et al., 2010). Besides, the NGOs and hotline counselling were the least common informal services used by adolescents for their mental health problems. A previous study also found that the

unawareness of available services is one of the reasons they did not seek help (Aida et al., 2010). Websites were found to be the second most common source of help. Web-based mental health services have several advantages such as being easily accessible with no geographical boundaries and free of charge. It provides vast amount of information needed to improve adolescents' mental health literacy. Furthermore, these web-based services are largely anonymous and private which help in reducing the stigma and embarrassment associated with help-seeking (Kauer, Mangan, & Sanci, 2014). All of these factors contributed to adolescents' preference to seek help from websites or web-based services. However, it is important to note that this study did not further evaluate the type of website visited by adolescents for their mental health problems.

Thus, current formal and informal services are adequate to address mental health problems among adolescents in schools and community. All these services are known to adolescents. However, there is a need to emphasize on their attitude toward these services.

Approximately 96% of those who sought help from any type of mental health service also sought help from informal sources such as family, friends, relatives, and online chat. Friends were the most common informal sources for help, followed by parents and siblings – a similar finding in previous studies (Aida et al., 2010; Goodwin et al., 2016). As reported in the qualitative component of this study, adolescents preferred informal sources of help because of the trustworthiness, familiarity, accessibility, and interpersonal relationship which developed prior to the problems. Interestingly, informal sources of help were found to influence mental health service utilisation. Family and friends may act as a gatekeeper to formal mental health services. They are usually the first people adolescents turn to, to ask for help. Another informal source used by the adolescents in this study was informal online resources such as internet chat. These findings are similar to studies in Australia, which found online resources being a very common source of help

for mental health problems (Burns, Davenport, Durkin, Luscombe, & Hickie, 2010; Ellis et al., 2012; Goodwin et al., 2016). This online help-seeking may be explained by increase in internet use in Malaysia. The recent internet user survey in 2017 by the Malaysia Communications and Multimedia Commission (MCMC) reported that 77% of Malaysians regardless of age are relying on the internet to look for health information. About 90% seek 'symptoms and disease' and more than 60% seek for a place to get treatment. Most of them trust the health-related information found online (Malaysia Communications and Multimedia Commission, 2017). Adolescents rely on the internet because they can access health information and seek help anonymously and privately. These factors contribute to adolescents feeling empowered and confident in exploring sensitive or stigmatised issues such as mental health (Burns et al., 2010).

In this study, the qualitative component also found that friends were the main source of help for adolescents when facing mental health problems. They believed that friends have a non-judgemental attitude and are understanding. A few adolescents admitted that they had sought help from family members, either the parent or sibling. Adolescents believed that family members know about them in person and may also face the same situations or problems, thus they would be able to provide helpful insight. Similar reasons were found in a study among Australian population looking at the advantages of seeking help from family and friends for depression. (Griffiths et al., 2011).

Interestingly, our study found that one participant sought help from traditional healer called '*bomoh*'. The family was a gatekeeper to this source of help. In this particular case, the mental health problem was perceived as 'illness of the soul' which is directly translated to *'sakit jiwa'* in the Malay culture. This mental health illness sometimes – but not always – is related to supernatural or spirit possession. This cultural belief may influence them to seek help from the traditional healer (Chong et al., 2013). In

underdeveloped regions like Africa, the mental health service is often underutilised because of superstitious belief about the cause of mental illness. Because of that, they often seek help from the traditional healer prior to contact the mental health professionals (Abdulmalik & Sale, 2012).

5.4 Factors Associated with Mental Health Services Utilisation

Factors associated with mental health services utilisation were discussed according to the Andersen's Behavioural Model of Health Services Utilisation. It was divided into three main factors; predisposing, enabling and need factors. In the univariate analysis, the predisposing factors associated with mental health services utilisation were family size (equal or more than 4), mother's occupational status, self-reported experience of depression, and knowledge about the symptoms of depression. The enabling factors that were found to be related to mental health services utilisation included awareness of available resources. While for the need factors, variables associated with mental health services utilisation were perceived need for help and extremely severe depression, anxiety and stress.

Results were confirmed using multiple logistic regression. Factors found to be significantly associated with mental health services utilisation in the final model were knowledge about depression, self-reported experience of depression, awareness of the available resources, and perceived need for help.

5.4.1 Predisposing Factors

The current study showed a good indicator of the adolescent's knowledge about depression. More than 85% of adolescents had moderate to excellent knowledge about depression. This finding was supported by the qualitative component of this study. About 63.6% of the adolescents recognised the given vignette during the interview as depression. Taking into consideration the alternative labels such as sadness and stress as

indicative of understanding depression, this accounted for an additional 81.8%. The rate was higher compared to the previous studies (Ogorchukwu et al., 2016; Picco et al., 2017; Yamasaki et al., 2016). Several studies showed that mental health literacy is associated with help-seeking behaviour and attitude toward professional help (Picco et al., 2017). This study also found that adolescents who had good to excellent knowledge about depression were more likely to use mental health services. This knowledge increases the adolescent's awareness of their mental health condition which enables the adolescents to recognise the mental health problem as well as encouraging them to seek help early (Ogorchukwu et al., 2016). However, it is necessary to note that the adolescents in this study were only asked about the knowledge of depression. It might not reflect their knowledge about other mental health problems.

As reported in previous studies, this study concurs that adolescents who reported personal experience of depression were more likely to utilise mental health services (Breland et al., 2014; D. Eisenberg et al., 2007). Furthermore, the majority of adolescents who reported personal experience of depression had good to excellent knowledge of depression and were aware of the available resources for mental health problems. This is because adolescents who experienced a mental health problem more actively seek information about it and develop skills to tackle the issue (Reavley et al., 2011). This eventually leads to greater odds for help-seeking from mental health services (Mariu et al., 2012; Reavley et al., 2011)

Many studies reported that education and family-related problems were the leading causes of mental health problems. The qualitative findings of this study also found that family disharmony and education-related problem were the leading causes of their mental health problems. These issues are often cited as the cause of increasing rates of mental health problems (Barker, 2007). Among the given list of symptoms of depression, sexual

dysfunction or loss of sexual desire was less recognised. One probable explanation is the lack of knowledge about sexual and reproductive health. As reported in a previous study in Malaysia, the majority of Malaysian adolescents have little knowledge about sexual and reproductive health (Rahman et al., 2011; Fui-Ping, Rozumah, Mariani, Rumaya, & Mansor, 2010; Mustapa, Ismail, Mohamad, & Ibrahim, 2015). Therefore, it affects the adolescents' ability to recognise their sexual desire and sexual function as one of the possible symptoms of depression.

5.4.2 Enabling Factors

Awareness of available resources was associated with mental health service utilisation. This result concurs with a previous study showing that utilisation of mental health services was significantly greater with the higher recognition rate of mental health centres (Lee et al., 2017). The more adolescents know about the sources of help for their mental health problem, the more likely they are to seek help. Many studies reported that lack of awareness of resources is one of the barriers to utilisation of mental health services (Aida et al., 2010; Gulliver et al., 2010; Hunt & Eisenberg, 2010).

This study also found that 27.3% of the adolescents reported they were not aware of the resources available for mental health problems. In the in-depth interview, one-third of the participants reported that they were not aware of the availability of the resources for mental health problems. It is worth to bear in mind that this can be considered ignorance about the mental health services. Rather than being unaware of the service, adolescents may not be aware of how the services can help them with their mental health issues (Leavey et al., 2011). Additionally, several participants in our qualitative interview did not consider a professional such as school counsellor an appropriate source of help for mental health problem. This again, may reflect a lack of knowledge about mental

health service and its usefulness. This has been reported previously as one of the barriers to help-seeking (Gulliver et al., 2010).

Our findings revealed that over 90% of adolescents reported having moderate to high social support across the subscales. This was a good sign, as social support is known as one of the protective factors against mental health problems (Barker, 2007; Fleury et al., 2014; Heerde & Hemphill, 2017). As expected, a higher proportion of adolescents with moderate to high social support sought help from mental health service. However, the social support variable in this study was not significantly associated with the use of mental health services. In contrast to a study conducted among adolescents in the US, those who reported mental health services use had lower social support than who did not use mental health services (LeCloux et al., 2016).

5.4.3 Need Factors

In the present study, need was evaluated objectively using a measure of depression, anxiety and stress score. The subjective need on the other hand, was measured by asking the perceived need for professional help and perceived general health.

Those with perceived need for help in this study comprised 47.8%. Out of these, 59.7% sought help from mental health services. This finding is higher compared to 11.6% perceiving the need and 2.1% seeking help from mental health services as reported in a study conducted among Korean school-going adolescents (Kim et al., 2014). These differences may be ascribed to heterogeneity in the definition of perceived need and the availability of mental health services. The current study evaluated perceived need for help while the previous study evaluated perceived need for mental health services. Additionally, the present study found that adolescents who did not seek help also perceived need for help. There are a few factors that influenced their needs. It was further explored in the in-depth interview of this study that adolescents only perceived a need for

help when they could not cope with the problems, or when severity of the problem increased, or when they felt ready to share with others. Some adolescents mentioned that their problems were not severe enough and could be solved by themselves.

Evidence from across studies suggests that adolescents who perceived a need for help were more likely to use mental health services (Codony et al., 2009; Eisenberg et al., 2011; Nam et al., 2018). The present study confirmed that adolescents perceiving a need for help for their mental health problem were more likely to use mental health services. The perception of need can be translated into action i.e. help-seeking and access to services if the adolescents recognise their problem and are aware of the available options for help (Eisenberg et al., 2011). Consistent with results from previous studies, perceived need was influenced by the mental health status (Eisenberg et al., 2007; Kim et al., 2014; Stringer et al., 2013). The current study also found that there was a significant association between mental health problems and perceived need. Adolescents who reported the perceived need for help had a higher proportion of moderate to extremely severe score of depression, anxiety and stress, ranging from 46% to 88%. A study conducted among 18 to 19 year-old adolescents reported the perceived need as a presence of a symptom of mental health problem (Rosenthal & Wilson, 2016).

Unlike other studies (Eisenberg et al., 2007; Mariu et al., 2012; Reavley et al., 2011), this current study found no association between DASS score and the use of mental health service. This lack of association is likely due to the tool used to assess mental health status. Discrepancies might occur when participants were asked about the presence of depression, anxiety and stress in the past one week, while mental health services utilisation was assessed for the past 12-months duration.

5.5 Perceived Barriers to Seeking Help for Mental Health Problems

Further exploration of the reasons that prevent adolescents from seeking help for their mental health problems revealed several barriers.

5.5.1 Attitudinal Barriers

5.5.1.1 Concern about being judged or labelled

The in-depth interviews revealed concern about being judged or labelled as a predominant theme. Many adolescents were afraid of being judged or labelled as 'bad', problematic and mentally ill person if they sought professional help for emotional and psychological problems, especially by people around them such as a friends, family and teachers. During the analysis, this fear of being labelled seemed very much related to stigma. However, it did not fulfil the definition of stigma, which included negative stereotypes, discrimination and devaluation (Mukolo, Heflinger, & Wallston, 2010). However, in the long-term, continuous negative labelling affects individual self-esteem and paves way for stigma. Later, it may lead to stigmatisation, i.e., isolation and withdrawal from social life. As reported in many studies, stigmatisation is one of the main barriers toward seeking professional help for a mental health problem (Boyd et al., 2007; Czyz et al., 2013; Freedenthal & Stiffman, 2007; Savage et al., 2016; Seamark & Gabriel, 2016).

5.5.1.2 Difficulty or unwillingness to express emotion

Similar to previous studies, difficulty in expressing emotion to others was one of the reasons why adolescents felt reluctant to seek help (Gulliver et al., 2010; Salaheddin & Mason, 2016). This present study found that feeling ashamed, not used to sharing feelings, afraid of not being understood, and perceiving mental health professionals as strangers were the main reasons why adolescents had difficulty and were unwilling to open up about their problems. Such attitudes may deter mental health help-seeking. It resulted in

adolescents deciding to handle their problems on their own (Vanheusden et al., 2008). This behaviour was also determined by the family upbringing. They were not used to sharing their feeling or problems with the people in the social network. Thus, to share and disclose their feelings to other people (outsiders and strangers) was even more difficult for them.

5.5.1.3 Self-reliance

Our study findings concur with previous studies, showing that self-reliance is a predominant barrier theme to mental health help-seeking among adolescents (Andersson et al., 2013; Czyz et al., 2013; Low et al., 2016). In this present study, adolescents believed that they were able to solve their problem in their own way. This self-reliance may be related to other barriers as well such as mistrust, lack of access and negative experience with healthcare provider. Interestingly, this study revealed that self-reliance behaviour was more prominent among males compared to females. This can be explained by the expected role of masculinity in male in which it influences the attitude, intention and help-seeking behaviour (Seidler et al., 2016). A previous study reported that self-reliance might act as a defence mechanism that denies the need for professional help. It can be dangerous when it is too extreme and if it prevents adolescents from seeking help (Labouliere et al., 2015).

5.5.2 Logistics Barriers

Logistics barriers appeared as the second most common barrier in the analysis. It included financial concern, transportation constraint, distance and time constraint. Among these four themes, three themes, namely financial concern, transportation constraint and distance were interrelated. Being adolescents, they do not have their financial sources and transport except depending on their parents or the family. In this study, the majority of adolescents came from the lower and middle-income families.

Therefore, cost was a concern to them. There was a perception that professional help requires a high fee. For this reason, they seek informal sources of help. This finding concurs with a recent study conducted among university students in Malaysia reporting that financial constraints was one of the main barriers to seeking professional help (Low et al., 2016). Some adolescents on the other hand were living in rural or suburban areas, where the health facility was relatively far from their home and traveling was not cheap. Previous studies in Western countries demonstrated that lack of accessibility due to transportation and distance from home constituted a barrier for adolescents living in rural areas (Aisbett et al., 2007; C. P. Boyd et al., 2011; Gulliver et al., 2010).

Time constraint is another important aspect that has emerged from the interview. Adolescents in this study reported that the tight schedule at school and limited operating hours of healthcare services made it difficult for them to seek help for mental health problems. This lack of time also prevented them from seeking help from the school counsellor. This finding concurs with a recent study showing that time constraint is one of the reasons for not seeking help from professional mental health services (Low et al., 2016). A previous systematic review by Gulliver et al (2010) reported that lack of time leads to less access to healthcare services.

5.5.3 Professional related barriers

5.5.3.1 Confidentiality and trust

Confidentiality and trust issues were important barriers to seeking help among the adolescents, and this finding concurs with previous studies (Leavey et al., 2011; Low et al., 2016; Price & Dalgliesh, 2013). Several adolescents mentioned their concern that professionals would disclose and share the problem with others. Therefore, adolescents preferred to seek help from someone they trusted, especially when it came to mental health-related problems. In this study, they were more likely to seek help from informal

sources such as family and friends whom they saw as trustworthy. Trustworthiness is developed from a long-term relationship and connectedness with the persons around them (Corry & Leavey, 2017). In this case, adolescents were more connected to, and familiar with their family and peers. As Corry et al. (2017) described, trust comes from familiarity and connectedness between the trustee and trustor. Concern about confidentiality in the present study was more related to parents. Adolescents were worried that their parents would know that they had sought help or were having mental health problems. As reported in a systematic review by Gulliver et al. (2010), confidentiality and trust-related issues are the second most common barriers to help-seeking.

5.5.3.2 Characteristics of the professional

Several adolescents in this study raised concerns on the characteristics of the professional including the age of the professional, gender and closeness while seeking professional help. Adolescents were more comfortable to talk to someone known to them, at a more or less similar age. Adolescents believed that the age difference between themselves and older professionals constituted a generation gap which would make their situation or problem difficult to be understood. Older health professionals were regarded as being out of touch with the adolescent's problems, issues and trends. Gulliver et al. (2010) reported in a systematic review about the importance of characteristics of the provider in facilitating mental health help-seeking. An adolescent mentioned about the preference of the same gender so that they could feel more comfortable to open up. This study also found that not being close, not known to the adolescents and unfriendly attitude were characteristics that deterred help-seeking. As suggested by one participant, the professional should act like a friend to the adolescent, to create a sense of closeness and reduce the formality gap.

5.5.3.3 Professional competency

Professional competence in mental health has previously been identified as a barrier to help-seeking (Corry & Leavey, 2017). Similarly found in this study, several adolescents believed that not all professionals had the right skills in dealing with emotional problems particularly the school counsellor. This could be due to their assumption that healthcare professionals could only deal with physical illnesses (Aida et al., 2010; Corry & Leavey, 2017). Meanwhile, the school counsellor only deals with education-related problems and not emotional problems. In most circumstances, adolescents come to healthcare services for somatic symptoms and not mental health symptoms. Somatic symptoms of mental health problem often dominate. Untreated somatic symptoms may lead to severe mental illness in adulthood (Bohman et al., 2018). Therefore, it is the responsibility of the professionals to detect and recognise the underlying problems. The present study reported adolescents' expectations on professionals to ask more about their problem even though they came for physical illness or somatic symptoms. Failure to do so may reflect a lack of skill of the provider in engaging with adolescents who may have mental health issues.

5.5.4 Negative Experiences with Healthcare Providers

Negative experiences with a healthcare provider could be a deterrent to seeking help among adolescents. In this study, adolescents described their experiences dealing with the healthcare provider for various reasons. It was not specific to mental health problems. This experience may affect their perception of mental health services as well as healthcare professionals. Negative experiences such as long waiting time either to see the doctor or to get an appointment was reported as barriers in some previous studies (Andersson et al., 2013; Czyz et al., 2013; Low et al., 2016). In this study, the majority of adolescents experienced long waiting times at government general hospitals and health clinics. It is known that public healthcare facilities are overloaded with patients and the average

waiting time in the public hospital is more than two hours (Pillay et al., 2011). The other unpleasant experience mentioned by respondents in this study was the unfriendly environment that made them feel uncomfortable. Gulliver et al. (2010) in a systematic review also reported that past experiences of help-seeking might affect future decisions about help-seeking. Adequate knowledge about healthcare services on the other hand, may create a positive experience.

5.5.5 Knowledge about Seeking Professional Help

5.5.5.1 Not knowing where and how to get help

Concerning the barrier 'do not know where and how to get help', this reflects a lack of understanding about the services, namely how they can help. It also reflects a lack of awareness about the available services (Lynch et al., 2018; Price & Dalgliesh, 2013). Also, a lack of understanding about the nature of treatment for mental health problems in different services resulted in adolescents believing it was not worth to pay, only to listen to some advice. Adolescents in this study also described professional help as a 'waste of money' as well as ineffective. For this reason, they turned to seek help from informal sources. This study also found that some adolescents coped using spiritual approach which they perceived as free and a better option. This may be related to the cultural beliefs about mental illness that it is caused by spiritual and religious factors (Hassan et al., 2018). Spirituality is known as one of the resources that helps people to cope with stress in life (Verghese, 2008).

5.6 Implications of Study Findings

The findings of this study are important to the public health field of the country particularly in reducing the 'service gap'. It provides a better understanding of the adolescents' help-seeking behaviour and its barriers.

From the policy standpoint, examining factors and barriers to seeking help could assist in the improvement of service provision, as well as inform the service providers and policymakers on which delivery mores are more efficient for adolescent mental health services. For instance, it can be achieved through the provision of adolescent-friendly environment and services. The environment should be equipped with edutainment – education through entertainment – geared toward adolescents, to make adolescents feel welcome. A separate waiting area and a confidential space which is away from parents and public is essential. The adolescent-friendly mental health services should address the professional related barriers and negative experience with healthcare providers that hinder them from seeking professional help. Services thus need to be made accessible and available with greater timing flexibility, and having skilful and competent professionals in dealing with adolescent's mental health problems. The team of healthcare-doctors and support staffs need to strengthen their skills by obtaining adequate training on the importance of being non-judgmental, caring, and supportive toward adolescents. In addition, the frontline staff such as security personnel, receptionists or persons registering adolescents in the facilities must show respect all the time. It is important as they give a good first impression to those seeking help. In order to encourage adolescents to seek help from available services, efforts must be done to increase awareness about this service in terms of the type of assistance provided, benefits of therapies or treatments, as well as confidentiality assurance. Besides, the service should be a safe space, with a supportive environment. Adolescent-friendly mental health services require an effective referral system between the school and healthcare providers. To achieve this, it should be provided in collaboration with other stakeholders such as MOE, national and international NGOs, parent-teacher associations and peer support groups.

This study provides a better understanding of adolescent help-seeking behaviour. Adolescents prefer to seek help from informal sources, mainly their close social networks

such as family and friends. Thus, mental health services and programs should incorporate this group of preference. These sources would be the gatekeeper to formal mental health services. Adolescents will first turn to their family members or friends before they decide to seek help from professionals. If these informal sources able to recognise mental health problems and know where and how to seek further help, adolescents can be directed to the appropriate services. Hence, the gatekeepers should be equipped with adequate knowledge about mental health needs, the available resources for mental health problems and knowledge about adolescents' mental health. It helps to direct the adolescent to use mental health services. In some instances, the adults surrounding the adolescents will decide whether or not healthcare needs to be sought and if so, from whom and where it should be sought.

The findings of this study help in improving and strengthening the current mental health program at schools as well as developing a new program that caters the adolescents' mental health needs. The school mental health programs and activities should be targeted to strengthen the adolescent's knowledge of mental health especially disease recognition and increase their awareness about the available resources for help. Furthermore, activities and programs should emphasise the need for seeking help for mental health and its benefit. Schools can be an excellent platform for educating adolescents about mental health. The majority of adolescents spend long hours a day in school. Therefore, the school can be an appropriate place to disseminate mental health knowledge and develop their coping skills in stressful situations. Besides, adolescents must be taught how to express and convey their feelings or emotions. They need to know sharing emotion is not something to be ashamed of, whenever they have emotional problems and seek help. These efforts may help to increase the rate of mental health service utilisation as well as reduce the prevalence and severity of mental health problems. This study also found that adolescents almost always preferred informal

sources. Hence it is really important to involve their parents and peers in school programs and activities.

Apart from the school mental health program, school counsellors may also benefit from the study findings. Results from the first phase showed that adolescents sought help less from school counsellor compared to a school teacher. The qualitative component found that adolescents felt reluctant to seeking help from counsellors out of fear of being labelled and judged as a problematic, and they had no time to see the counsellor due to a tight schedule. Other than, they were also concerned about confidentiality and trust issues. Therefore, effort should be made to address these barriers and increase the rate of counsellor help-seeking. The program can be designed to develop good rapport between the counsellor and adolescents as well as educate them about the role and function of a counsellor.

This study also found that several adolescents sought help from informal services such as websites and internet chats. This evidence gives a wealth of information to the policy maker in developing a new policy, guideline, or program using internet-based services. This digital platform can be used to educate adolescents about mental health knowledge and resources. The Internet can provide self-administrated mental health assessment, support group and referral network. This has been well established in another country such as Headspace in Australia that offers free online chat session for mental health problems. Online mental health may bridge the gap between adolescents and mental health services. It is concordant with current adolescent's way of living which is technology-integrated (Blanchard, Hosie, & Burns, 2013). One of the advantages is that it helps to overcome some barriers such as stigma and confidentiality issues.

The study findings have given impetus to some aspects of clinical practice. The underutilisation of mental health services by adolescents is well established in previous

studies. The present study provides further evidence of adolescents' reluctance to seek professional help. Low proportions of adolescents with severe and extremely severe depression, anxiety and stress sought help from the formal mental health services. The barriers found in this study highlight a specific area that should be targeted in encouraging help-seeking among adolescents. For instance, the help-seeking promotion effort could inform adolescents about what to expect when seeking help from our mental health services. Concerns about affordability, professional competency, confidentiality and trust could be addressed by explaining the service options that are available and accessible to them.

5.7 Strengths and Limitations of the Study

5.7.1 Strengths of the Study

The strength of this study is that this research is one of the few studies conducted on the topic of the adolescent's mental health within the Malaysian context. This is the first study in Malaysia that is looking into facilitating factors and barriers to seeking help for mental health problems among late adolescents. To our best knowledge, previously published studies in Malaysia only documented help-seeking barriers for mental health problems. Also, there have been no documented studies among late adolescents (Form Six students) in a secondary school setting.

The current study also approached help-seeking barriers from various aspects including formal and informal mental health services, informal sources from adolescents' social network as well as help-seeking preference. This will help in developing integrated strategies in tackling the underutilisation of mental health services issues.

Furthermore, this our study supports existing public health knowledge in Malaysia given that it employs a well-known and validated model of help-seeking (Andersen & Newman, 1973; Andersen, 1995). The literature review in Malaysia found very few

studies that have been conducted on help-seeking and mental health service utilisation among the adolescents particularly 18-19 years old and none of it employed the Andersen' Health Behavioural Model of Healthcare Services Utilisation. Such approaches or studies have been carried out in other developed countries like the US, UK, Canada and Australia.

The mixed-method approach has a specific strength that should be considered. Firstly, the study utilised a two-phase sequential design in which the quantitative phase results were used to develop and inform the design and recruitment of the participants of the following phase. Secondly, the researcher was able to complement the other method by using both quantitative and qualitative methods. Thirdly, the study design provided strong evidence for a conclusion through methodological triangulation. Finally, the use of qualitative components provides insight into why adolescents were reluctant to seek help for their mental health problems, especially from professionals and formal mental health services. At the same time, it explains adolescents' personal experiences with healthcare providers. This information can be used to improve the existing mental health services by making them more adolescent-friendly.

To ensure qualification to conduct the qualitative study, the researcher underwent several training programs:

1) Hands-on workshop on engaging the adolescent module using the HEADSS framework. It helps prepare the researcher in interviewing adolescents and provides skills on communication, confidentiality, rapport, empathy and trust (CRET).

2) Intensive training on qualitative research which include introduction to qualitative research and analysis using the NVivo software prior to the study.

3) Good Research Practice (GCP) examinations, which equipped the researcher with knowledge of human ethics as well as patient confidentiality.

To ensure validity of the study tools, this study was validated using two measurement tools: PSOSH and IASMHS. To our knowledge, this is the first time both tools are validated in our setting. The PSOSH measurement tool is valid and reliable for use with late adolescents. However, the IASMHS measurement tool was found to be invalid for the current study population. With that, it opens another window of opportunity to evaluate its validity and reliability in Malaysian adolescent population. For this study, it was replaced with appropriate and validated tools to ensure the collected data is valid and of good quality.

5.7.2 Limitations of the Study

There are several limitations that need to be acknowledged when interpreting the findings in this study. First, this study employed a cross-sectional design. This method was unable to examine the causal and effect relationship between the variables of interest. However, the finding from this method would be useful in generating a hypothesis for future research. For the current study, this is the best affordable and reliable method to answer the research question with the limited time frame and budget constraint.

Along with that limitation, there is some caution regarding generalisability of the findings. The recruitment of adolescents was performed among 18 to 19 years old secondary school students in Selangor. Therefore, its generalizability is limited to late adolescents aged 18 to19 years at a secondary school setting. However, given that limitation, the sample was obtained from the state with a higher number of adolescents. Thus, these findings can be said to represent adolescents at the same age group and similar setting, i.e. 18-19 years old Form Six students in a secondary school in Malaysia. With regards its generalisability to the population of the same age group, the complex samples analyses were used in the data analysis to accurately estimates population standard error.

In this study, the mental health status of adolescents was assessed using the Depression, Anxiety and Stress Scale (DASS) which measures depression, anxiety and stress severity score. It is important to note that this measurement tool alone is not diagnostic for their respective mental health condition. It is not equivalent to a clinical diagnosis in accessing the need factor in the Andersen Behavioural Model. Discrepancies might occur when participants presented DASS in one week while mental health services were assessed for the past 12 months. Nevertheless, the assessment of one-week symptoms of DASS may provide a general idea about the mental health needs of adolescents. We opted for this tool because it is the most common screening tool used in school and MOH. The majority of adolescents were also familiar with this tool, which had been validated in the Malaysian population.

Another limitation is in the qualitative phase. The interviews were conducted in different settings including outside the schools. It might have affected the interviewees' emotion and response given the different environment. However, participants chose the place of interview according to their preference, and. To ensure the validity of the interview, the interviews were conducted in a private, quiet, and comfortable space.

Some questions in the interview topic guide used closed ended questions which may limit the adolescent's response and point of view. However, these questions were followed by clarifying questions or probing questions such as 'why', 'how' or 'what do you think' to allow adolescents to express themselves more.

5.8 Conclusion of Chapter 5

The findings discussed in this chapter have enhanced our understanding of adolescents' help-seeking behaviour and access to mental health services. It supported the hypotheses generated in this study by reporting that there were associations between some factors in Andersen Behavioural Model and mental health services use among

adolescents. There were also common barriers that prevented adolescents from seeking help for their mental health problems. Qualitative data complemented our quantitative findings, and provided a better understanding of research in terms of the reasons why adolescents are reluctant to seek help for mental health problems. The implication of the study findings is that, they will help policymakers and various stakeholders in constructing and developing promotion and prevention programs that aim to improve help-seeking behaviour. The study findings also contributed to the existing knowledge on adolescents' help-seeking behaviour and access to services. It emphasised the importance of mental health literacy, awareness about mental health resources and the need to overcome the help-seeking barriers. By doing so, it encourages help-seeking from mental health services. However, due to the study's limitation, the findings must be interpreted with caution.

CHAPTER 6: CONCLUSION

6.1 Introduction

This final chapter summarises the main findings of this study, recommendations based on the study findings and suggestions for future research. The purpose of this study was to determine the adolescents' help-seeking behaviour and the factors that influence adolescents' services utilisation for mental health problems. This study also explored the barriers to seek professional help for mental health problems. The results of this study underscore the need for increased understanding of this population as they seek help and access to the services for their mental health problems.

6.2 Summary

This study was motivated upon realising the increase of prevalence of mental health problems the adolescents, particularly late adolescents, and the underutilisation of mental health services. The present study showed that 53.2% of adolescents sought help from any of the mental health service: formal and informal for the past 12 months. Of whom 56.5% were males, and 52.9% were females. However, only 3.7% of adolescents sought help from formal mental health services. Among adolescents with apparent mental health problems, 59.2% sought help from any of the services while very small number sought help from professionals. Consistent with other studies, adolescents preferred to seek help from informal sources such as friends and family for their mental health problems.

In this study, the significant factors associated with mental health services use were knowledge of symptoms and self-reported experience of depression. The excellent, very good and good knowledge was a strong contributor to the use of any of the services, formal and informal. Adolescents who reported a previous experience of depression were two times likely to seek help from any of the services for their mental health problems. More than half of the adolescents were aware of the available resources for mental health

problems. This awareness was significantly associated with utilisation of the mental health services two times compared to those who were not aware of it. The perceived need for help was the only need factor found to be associated with the use of mental health services. Adolescents who perceived a need for help were two times more likely to seek professional help.

In qualitative phase, it revealed informal sources such as family and friends being the main sources of help because they are trustable, understanding, facing similar condition, and non-judgemental. While formal services or professionals was the less common help-seeking option. Their need for help was defined by perception of the seriousness of the problem and their readiness to share about it with others. The most prominent barriers to seeking help for mental health problems were concern about being judged and labelled, difficulty and unwillingness to express emotion, and confidentiality and trust issues. In addition, logistics barriers, professional related barriers and negative experience with the healthcare provider were observed in most of the adolescents. Through the in-depth interview, the majority of adolescents admitted that friends and family were their primary sources of help when facing mental health problems. These findings were supported by the findings from the quantitative components.

6.3 Study Recommendations

Recommendations are made based on the findings of this study. The aims of these recommendations are to encourage help-seeking especially for formal mental health services, strengthen the factors that facilitate the use of the services and reduce the barriers to seeking help.

6.3.1 Recommendations for Individual

The current study shows that awareness about the sources of help, mental health literacy and the perceived need for help were important individual factors associated with

help-seeking. Also, the majority of adolescents have negative attitudes toward seeking professional help. Similarly, the qualitative study shows that many barriers were related to the individual belief about the mental health and attitudes toward help-seeking and healthcare providers. Therefore, to increase access to mental health services, more attention needs to be given to these individual factors. It can be achieved by strengthening individual knowledge on mental health and sources of help and awareness of the available resources. The ability to recognise the mental health problem will lead to increased perceived need for help. Hence, a targeted program such as mental health literacy program and activities should be developed to strengthen the knowledge and increase the awareness of mental health resources. This program should be actively promoting how and where to get help from mental health services as well as the importance and benefit of seeking professional help. It can be initiated by the healthcare providers in collaboration with other stakeholders and interested parties such as the MOE, parent-teacher associations, community leaders, and peer support groups. Such a program may also help to reduce the intrinsic barriers by changing the perception about professional help and the seriousness of the problem.

6.3.2 Recommendations for Family

This study found that family is the main informal source of help for adolescents. The family may act as the gatekeeper to formal mental health services. Thus, the family members should be equipped with adequate knowledge of adolescents' mental health and the formal mental health resources for help through gatekeeper training program. It can be developed to train frontline individuals such as family members in behaviour that assist at-risk adolescents in obtaining mental health help. It may help their teenagers to receive appropriate help for mental health. Also, the family is an important source of social support to adolescents. There are many ways family can help the adolescents to share their emotional and psychological problems. Firstly, by gaining their trust by treating the

adolescent with respect. Evidence reported that trust is key to help-seeking. Secondly, parents should talk to their teenagers and spend time with them. To achieve this, a parent support program can be introduced via parent-teacher association. Engaging the parents into a school's mental health program is important. In this program, parents can be updated upon the issues pertaining to adolescent's mental health as well as mental health needs. By doing so, it helps in educating the parents. This will indirectly assist adolescents in getting help for their mental health problems.

6.3.3 Recommendations for Peers

This study also found that friends are one of preferred sources of help for the adolescents as they can relate to them better. Similar to the family, peers also need to be equipped with mental health knowledge and awareness of the formal sources. There is existing peer support group in the school called *'pembimbing rakan sebaya (PRS)'*. The role of peer support is to help and advise their peers who have any problems pertaining to academic as well as emotional problems. There is a need to strengthen this program by creating peer-counselling. The peers are trained by the school counsellor on how to help their peers with mental health problems. Peers need to be equipped with mental health-related information. By doing that, the peer support group can promote and guide the adolescents to seek appropriate sources of help. Peers support or peer-counselling also has been widely used for the ASRH, substance use and violence.

6.3.4 Recommendations for Promoting Help-seeking in School

School is an ideal and opportunistic setting to educate adolescents regarding mental health issues. Evidence showed that a school-based health program is a fundamental strategy in delivering adolescent's programs. There is an advantage of having a permanent school counsellor, who can help in promoting help-seeking as well as educate the adolescents on mental health issues. However, a recent report on the Malaysian mental

health performance mentioned that Malaysia has an inadequate number of counsellors to fulfil the existing mental health needs (Noraini et al 2016).

Moreover, the school mental health program should emphasise on addressing intrinsic barriers related to individual belief and attitudes. Focus can be given to develop good coping skills, positive attitude toward professional help-seeking and reducing stigma. The development of good rapport is also very important to overcome mistrust. In this study, adolescents suggested for the counsellor to be friendly and understanding. This study also found that the teacher was one of the sources of help. This is because of the daily contact with the adolescents during the learning sessions. Thus, the teacher should also be updated and trained about adolescent's mental health issues and knowledge. The teacher can be an ambassador for bringing the professional help closer to them. Thus, teachers should be engaged and trained as well. Other than that, parents also can involve in mental health programs at school via the Parents and Teachers Association.

Furthermore, current mental health programs in secondary schools are focusing on Form Four or 16 year-old students. This study has shown the need to expand the program to include late adolescents as well. Effective partnership can be built between teachers, school administers, school counsellors and school health team. They are the 'eye' and 'ear' of the program in the school where they can provide early detection of adolescent's mental health problems.

6.3.5 Recommendations for Promoting Help-seeking in Community

Several strategies can be devised in the community in promoting help-seeking at formal mental health services. At the community level, the programs and activities should target to increase awareness about the available mental health services through campaigns. Adolescent self-help groups can be established in the community with the supervision of community leaders and professionals including NGOs and religious

figures. This study has found that some adolescents preferred to seek help from online resources. Thus, it can be done by creating a network for example with the youth group, sport and local leader. The larger the network, the greater the social support. Another strategy is to empower youth leaders in order to engage adolescents in the community mental health-related programs and activities.

6.3.6 Recommendations for Promoting Help-seeking in Public Health Sector

The public health sector plays a significant role in creating awareness about mental health issues and service provision. It can be done via various channels including websites and media social. It is important to highlight what kind of service is provided by the healthcare system, its benefits and function of each service. Also, the awareness campaign can be organized through collaborations between religious groups, NGOs and youth associations. The aim is to ensure a realistic expectation about the nature of assistance that mental health services provide. Adolescents need to have a basic understanding that professional help is useful. On the other hand, professionals should also explain to adolescents about the benefit of the help they provide.

Special attention should be given to create adolescent-friendly mental health services. The World Health Organisation (2012) defined adolescent-friendly health services as accessible (able to obtain), acceptable (willing to obtain), equitable (for all), appropriate (right health services) and effective (provide in right way). Generally, to implement adolescent-friendly health services, a few initiatives must be taken: (1) health service providers are non-judgemental and competence, (2) health facilities are equipped to provide an adolescent-friendly environment (3) adolescents are aware of the need for services, and (4) community members are aware of the health-services needed by adolescents, and support the provision (World Health Organisation, 2012). The staff should be trained in order to increase the competency and effectiveness of the services

provided. By doing so, it will create a trusted source of help. This has been mentioned in the previous review by Baker (2007), whereby adolescents only seek help when they find trustable and reliable sources. Trust requires that a healthcare provider be sensitive to their needs.

Other than that there is a need to improvise and strengthen the existing programs in school such as the 'Healthy Mind Program' and 'Young Doctor' program. A new school-based adolescent mental health program can be initiated with the aim to integrate mental health services into school health services. In addition to the current school health team which consists of nurses and one medical officer, other professionals such as adolescent mental health specialist, family medicine specialist, social worker, occupational therapist, counsellor, teacher and religious leaders should be engaged to enhance the effectives of delivery and management of the mental health program. To ensure that adolescents seek appropriate help for a mental health problem, we recommend focussing on three components: mental health literacy, awareness of available resources, and adolescents' needs. This program can be delivered through the school program or online in mental health websites or online applications. Taking into consideration the rapidly growing social media, mental health information can reach adolescents faster if social media is capitalized. This needs a partnership between the public health sector and school. Also, mental health education also can be integrated into formal education under the science subject through collaboration with MOE. Adolescents should be taught how to recognise the problem early and when to seek help. To ensure the sustainability of all programs in school, community and public health, strong collaboration is needed among various stakeholders.

6.4 Recommendations for Future Research

This study focused on late adolescents in the secondary schools setting. Therefore, there is a need to replicate and extend the study to adolescents in different settings such as college, matriculation, foundation and university. Given that this study was conducted among the general adolescent population, there is also a need to include adolescents who are at risk of mental health illness such as adolescents with a history of mental disorders, those who are homeless or living juvenile institutions. The findings of the studies in different adolescent population and settings would be useful in developing an effective program to encourage mental health help-seeking across different groups.

Help-seeking behaviour is a complex process. It is important to understand the process of how adolescents decide to seek help and utilise mental health services. To understand this, it may need observation over time. Therefore, a longitudinal study would be appropriate in accessing adolescents' help-seeking process. Furthermore, a longitudinal design would address the possibility of changing predictors of the help-seeking and access to the services for mental health problems.

Family, friends and teachers play a more significant role as the gatekeeper which may directly influence adolescents' decision to seek help from formal mental health services. Therefore, a future study should continue to look into gatekeepers' knowledge about adolescent's mental health, awareness about available services and attitudes toward seeking professional help in relation to adolescents' utilisation of mental health services. This information may help to develop a comprehensive program which includes the gatekeepers to ensure an effective adolescents' mental health service provision.

Stigma factor was not significant in the present study. Public stigma did not influence adolescents' help-seeking in this study. Thus, further study should continue to evaluate the different types of stigma such as perceived and self-stigma.

In terms of need factors, this current study used DASS to assess adolescents' mental health status. DASS is a validated screening tool that is commonly used in assessing mental health status in primary health care and school setting. However, it may not represent the actual mental health problems of adolescents, or be as accurate as clinical assessments. Thus, there is a need to conduct further studies using validated clinical assessment tools in evaluating adolescents' mental health. This can be done in collaboration with clinicians.

6.5 Reflections of the Research Journey

Fieldwork experience can often be a challenging task in conducting research, but it can also be a fulfilling experience. This is my first experience conducting research fieldwork for my doctoral degree. It was overall, an enjoyable experience. Across many of my readings related to adolescents' help-seeking behaviour for mental health problems, a very small number of studies have been conducted in Malaysia. To ensure a better understanding of this issue, I decided to venture into a mixed-methods study. By mixing both quantitative and qualitative method, it allows me to gain a broader and deeper of understanding, while compensating for the weakness of each method (Creswell & Clark, 2017).

As a single-handed researcher, the data collection process was extremely stressful and sometimes precarious. I learned to be resilient and persistent. I also learned how to develop rapport with adolescents during the interviews. It took quite some time to gain their trust before they shared their problems and thoughts. Various efforts have been made to establish rapport such as talking about their topics of interest. I lost a few valuable days by spending time with them yet I only gained very minimal information. Looking back, I think I could have done better in establishing good rapport and interpersonal trust by spending more time and regular meeting before the actual interview. Due to time

constraint, I was unable to do this. According to Neinstein (2008), it is important to establish rapport before starting the interview with an adolescent.

During the data collection, I was able to share information about mental health with the school teachers as well as students. Currently, I am working in the district health office, and one of the tasks that has been assigned to me involves school health programs as well as adolescent health services in primary health care. Thus, with the experience and knowledge I have gained throughout the research process, I will be able to give valuable input in strengthening the existing programs at the district level and primary health care.

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LIST OF PUBLICATIONS AND PAPERS PRESENTED

Conference Proceedings

Roslaili Khairudin, Nik Daliana Nik Farid, & Maslinor Ismail (2017). *The reliability and validity of the Malay version of the Perceptions of Stigmatization by Others for Seeking Help (PSOSH-M) among adolescents.* Paper presented at the 5th Asia Pacific Conference on Public Health, Kuching, Sarawak, Malaysia.

Khairudin R, Nik Farid, ND, Ismail, M. (2018). *Help-seeking and access to services for mental health problems among adolescents in Selangor Malaysia*. Paper presented at the 4th International Conference on Public Health (ICOPH 2018), Bangkok, Thailand.

Roslaili Khairudin, Nik Daliana Nik Farid, & Maslinor Ismail (2018). *Understanding barriers to seek professional help for mental health problems among adolescents: A qualitative study*. Paper presented at the 50th Asia Pacific Academic Consortium for Public Health (APACPH), Kota Kinabalu, Sabah, Malaysia.

Roslaili Khairudin, Nik Daliana Nik Farid, & Maslinor Ismail (2019). *Help-seeking and and service utilisation for mental health problem among youth.* Paper presented at the Symposium on Prevention and Early Intervention for Mental Health Problems in Youth, University of Malaya, Kuala Lumpur, Malaysia.

Publications

Help-seeking Behaviour and Factors Associated with Services Utilisation for Mental Health Problems among Adolescents in Selangor, Malaysia (Manuscript submitted to Malaysian Journal of Public Health Medicine on Aug 16, 2018)