

**MENTAL HEALTH LITERACY AMONG
TERTIARY EDUCATION STUDENTS:
PERSPECTIVES FROM UNIVERSITY STUDENTS
AND EDUCATORS**

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UNIVERSITI SAINS MALAYSIA

2024

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by

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**Thesis submitted in fulfilment of the requirements
for the degree of
Master of Science**

July 2024

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my supervisor, Dr. Ooi Guat See, for her unwavering guidance and support throughout my research journey. Her expertise in qualitative research methods has been invaluable to me. Her constructive feedback and suggestions have helped me to develop a better understanding of the research process and to produce a thesis. I would also like to extend my thanks to my co-supervisors, Dr. Wong Yuet Yen and Dr. Ong Siew Chin, for their insightful comments and suggestions. Their support and encouragement have been crucial in shaping my research and improving the quality of my work.

I am grateful to all the participants who took part in this study. Their willingness to share their experiences and insights has been instrumental in producing meaningful results. I would also like to thank the staff and fellow postgraduates in Universiti Sains Malaysia, for their invaluable help throughout this research. Special thanks go to all the informants who generously gave their time to participate in this study. I would also like to express my gratitude to Universiti Sains Malaysia for the financial assistance provided through the Short-Term Grant (304/PFARMASI/6315470). Without this support, this research would not have been possible.

Finally, I would like to acknowledge the unwavering support and encouragement of my family and friends. Their belief in me and their moral support throughout this research journey have strengthened and motivated me. I am deeply grateful for their love and encouragement.

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LIST OF ABBREVIATIONS

ATSPPH	Attitudes Toward Seeking Professional Psychological Help
GHSQ	General Help-Seeking Questionnaire
ISCI	Intentions to Seek Counselling Inventory
K10	Kessler Psychological Distress Scale
MHLS	Mental Health Literacy Scale
SSOSH	Self-Stigma of Seeking Help Scale
SSRPH	Stigma Scale for Receiving Psychological Help
USM	Universiti Sains Malaysia
WEMWBS	Warwick-Edinburgh Mental Well-being Scale

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**LITERASI KESIHATAN MENTAL DALAM KALANGAN PELAJAR
PENDIDIKAN TINGGI:
PERSPEKTIF DARIPADA PELAJAR UNIVERSITI DAN PENDIDIK**

ABSTRAK

Perspektif pelajar universiti tentang isu kesihatan mental terhad walaupun penyakit kesihatan mental semakin meningkat dalam kalangan pelajar universiti. Dengan menggunakan pendekatan kualitatif, tesis ini mengkaji tentang persepsi pelajar mengenai kesihatan mental, penyakit mental dan pencarian bantuan kesihatan mental, literasi kesihatan mental pelajar dari pespektif pendidik dan peranan serta cabaran pendidik dalam menyokong kesihatan mental pelajar. Temu bual atas talian atau secara bersemuka telah dijalankan dalam kalangan pelajar universiti dan pendidik dari Disember 2021 hingga Julai 2022. Semua temu bual telah direkod, ditranskripsi secara verbatim dan dianalisis menggunakan analisis tematik. Enam belas pelajar universiti dan dua belas pendidik telah ditemubual. Kebanyakan pelajar mengaitkan kesihatan mental dengan pemikiran, emosi dan tingkah laku individu, manakala minoriti menganggap 'kesihatan mental' sebagai 'penyakit mental'. Pelajar menyatakan faktor sosio-persekitaran sebagai punca utama penyakit mental, dan hampir semua menunjukkan sikap positif dan sedia membantu orang dengan penyakit mental. Walau bagaimanapun, terdapat juga pendapat yang tidak bersetuju dengan pendedahan diri sebagai pesakit mental untuk mengelakkan emosi negatif. Kebanyakan pelajar percaya bahawa menjalani kehidupan yang memuaskan dan seimbang, bersikap optimis dan beragama boleh membantu mencapai kesihatan mental yang baik. Internet dan media sosial merupakan sumber-sumber maklumat kesihatan mental yang paling popular di kalangan pelajar, dan kebanyakan pelajar mencari maklumat tentang penyakit mental

dan strategi bantuan diri. Stigma adalah halangan peribadi yang paling signifikan untuk mencari bantuan. Kos yang tinggi, masa menunggu yang lama, petugas kesihatan mental yang tidak profesional, kekurangan pengangkutan dan perkhidmatan kesihatan mental adalah halangan struktur untuk mencari bantuan. Sebaliknya, perkhidmatan kesihatan mental yang adil, percuma dan janji temu yang fleksibel akan memberi dorongan kepada pelajar untuk mencari bantuan. Majoriti pendidik percaya bahawa pelajar universiti mempunyai pemahaman yang lebih baik tentang kesihatan fizikal dengan kesedaran yang terhad tentang kepentingan kesihatan mental. Selain itu, pelajar kurang berinisiatif untuk mencari maklumat kesihatan mental. Jantina, kursus dan tahap pengajian adalah faktor yang mungkin mempengaruhi literasi kesihatan mental pelajar. Memantau tingkah laku dan prestasi akademik pelajar, mewujudkan dan mengekalkan hubungan yang baik dengan pelajar, serta mendengar dan merujuk pelajar kepada profesional adalah strategi yang digunakan oleh pendidik dalam menyokong kesihatan mental pelajar. Namun begitu, mereka menghadapi beberapa cabaran dalam menyokong kesihatan mental pelajar, termasuk kekurangan pengetahuan kesihatan mental, peningkatan beban kerja, hubungan pensyarah-pelajar yang kurang baik, ibu bapa yang tidak bekerjasama dan konflik kepentingan yang mungkin timbul. Banyak pendidik mengakui keperluan latihan kesihatan mental untuk menyokong kesihatan mental pelajar. Mereka ingin belajar cara mengenal pasti dan berinteraksi dengan pelajar yang mengalami masalah kesihatan mental. Persepsi dan kepercayaan pelajar tentang kesihatan mental dan penyakit mental perlu difahami kerana ini boleh mempengaruhi sifat mencari bantuan. Hasil kajian ini amat menggalakkan sebab pendidik bersedia untuk menyokong pelajar yang mempunyai masalah kesihatan walaupun menghadapi beberapa cabaran. Oleh itu, latihan kesihatan mental dan garis panduan yang jelas diperlukan.

**MENTAL HEALTH LITERACY AMONG TERTIARY EDUCATION
STUDENTS: PERSPECTIVES FROM UNIVERSITY STUDENTS AND
EDUCATORS**

ABSTRACT

University students' perspectives on mental health issues remain scarce despite the growing prevalence of mental illness among this population. Using a qualitative approach, this thesis explored students' perceptions and beliefs about mental health and mental illness, mental health help-seeking, as well as educators' perspectives on students' mental health literacy and their roles and challenges in supporting students' mental health. Virtual or face-to-face interviews using a semi-structured interview guide were conducted independently among university students and educators between December 2021 to July 2022. All interviews were audio-recorded, transcribed verbatim and analysed using thematic analysis. Sixteen university students and twelve educators were interviewed. Most student informants related mental health to an individual's thoughts, emotions and behaviours, while a minority equated 'mental health' with 'mental illness'. Students perceived socio-environmental factors as the primary cause of mental illness. Nearly all informants expressed positive attitudes and willingness to help people with mental illness. However, contradictory opinions about the disclosure of mental illness were demonstrated. Some students decided to cover up their mental health problems to avoid the likelihood of experiencing negative emotions. Most student informants believed that living a fulfilling and balanced life, staying optimistic and being religious could help them to maintain good mental health. Internet and social media were the most preferred mental health resources among students. Students

usually sought information about mental illness and self-help strategies. Stigma was the most significant personal barrier to help-seeking, as students feared being judged by others. High costs, long waiting time, unprofessional mental healthcare providers, lack of transportation and mental health services were the structural barriers to help-seeking. In contrast, non-judgmental, free and confidential mental health services with flexible appointments would encourage students to seek help. The majority of educators believed that university students had a better understanding of physical health but limited awareness of mental health, and students lacked proactiveness in seeking mental health information. Gender, courses and level of study were factors that might affect students' mental health literacy. Monitoring students' behaviours and academic performances, establishing and maintaining good rapport with students, and listening and referring students to professionals were the strategies used by educators in supporting students' mental health. Nevertheless, they faced challenges supporting students' mental health, including a lack of mental health knowledge, increased workload and burden, poor lecturer-student relationships, uncooperative parents and potential conflict of interest. Most educators recognised the need for mental health training to support students' mental health. They wished to learn ways to identify and interact with students with mental health struggles and interact with them. In order to mitigate the deterioration of students' mental health, it is necessary to understand their perceptions and beliefs about mental health and mental illness, as these may influence their help-seeking behaviours. It is encouraging that educators are willing to support students with mental health issues even though they face several challenges. Therefore, mental health training and clear guidelines are needed.

CHAPTER 1 INTRODUCTION

1.1 Background of the study

Mental illness (mental health issues) refers to a wide range of mental health disorders involving emotional, cognitive or behavioural disturbances (or a combination of these) (World Health Organisation, 2022b; Njoku, 2022). It stands as a significant global public health issue, contributing substantially to the overall burden of disease and disability worldwide (World Health Organization, 2017a). According to the National Health and Morbidity Survey conducted by the Ministry of Health in Malaysia, the prevalence of mental health issues among people aged 16 and above was 29.2% in 2015, implying that approximately one in three Malaysians is struggling with mental health issues (Ahmad et al., 2015). A drastic two-fold increase in mental health cases over the past decade (11.2% in 2006 vs. 29.2% in 2015) indicates that mental health conditions in Malaysia are alarming (Ahmad et al., 2015).

The university years represent a pivotal developmental phase and mark the transition from late adolescence to emerging adulthood (Arnett, 2004). Based on Kessler et al. (2007), the first onset of mental health issues is usually before the age of 24, which may encompass the period when an individual is enrolled in a college or university. Several studies from Western countries such as the United Kingdom (U.K.), Italy and Australia revealed that about 50% of college students experienced mental health issues (Chen & Lucock, 2022; Porru et al., 2021; Stallman, 2010). In Malaysia, the prevalence of emotional disorders among students in a private university was 48.3% (Al-Naggar & Al-Naggar, 2012). Another study found that 34%, 27.5% and 18% of Malaysian students suffered anxiety, depression and stress, respectively

(Shamsuddin et al., 2013). A recent study showed that Malaysian students had significantly higher depression [Mean \pm standard deviation (SD) = 15.36 ± 10.09 vs 10.33 ± 7.14 , $p < 0.0001$], anxiety (17.41 ± 8.93 vs 10.41 ± 7.80 , $p < 0.0001$) and stress (18.64 ± 9.15 vs 15.71 ± 8.53 , $p = 0.009$) levels compared to the students in the U.K. (Kotera et al., 2021). In addition, about 30% of university students experienced varying degrees of anxiety during the COVID-19 pandemic in Malaysia (Sundarassen et al., 2020). This shows that the mental health issues of Malaysian tertiary education students are further influenced by the pandemic and may have worsened.

Mental health literacy is defined as “knowledge and beliefs about mental illness that aid their recognition, management and prevention” (Jorm et al., 1997). It consists of five major components: (a) ability to recognise specific disorders, (b) knowledge and beliefs about risk factors or causes, (c) knowledge and beliefs of self-help and professional help available, (d) knowledge of how to seek mental health information and (e) attitudes that promote recognition and appropriate help-seeking (Jorm et al., 1997). Mental health literacy is vital for people to gain a better understanding and control over their mental health since it emphasises the importance of developing self-management skills, fosters positive attitudes about mental health issues and reduces mental health-related stigma (Kutcher et al., 2015). It has been demonstrated that increasing mental health literacy among tertiary education students maximises their abilities to achieve full academic performance and life potential while decreasing their behavioural, emotional and mental health difficulties (Hoven et al., 2008). Hence, improving mental health literacy among tertiary education students should be a top priority since it has far-reaching benefits and can create a better future for individuals and society.

Mental health services such as counselling services, psychiatric assessment and treatment, mental health programmes, and social support programmes are available in Malaysia but are considerably underutilised by university students (Yulia et al., 2021; Salim, 2010). Alarming, only about one-sixth (16.4%) of students with mental health issues have received minimum appropriate treatment (Auerbach et al., 2016). In Malaysia, it is surprising that only 32% of students were aware of the mental health services offered by their universities (Yorgason et al., 2008). Previous studies have suggested that significant barriers such as stigma, inadequate mental health literacy, self-reliance, lengthy waiting times, an exposed waiting area and an insufficient number of counselling sessions deter young people from seeking professional help (Cage et al., 2018; Pedrelli et al., 2015; Gulliver et al., 2012; Wallace, 2012). In contrast, positive help-seeking experiences and good mental health literacy are facilitators of help-seeking (Jorm, 2012; Gulliver et al., 2012). In order to prevent the escalation of students' mental health issues, it will be necessary to eliminate barriers to mental health help-seeking and enhance facilitators for obtaining mental health services.

In tertiary education settings, educators function as gatekeepers for students' mental health due to frequent contact with students (Gulliver et al., 2018). Findings from Australia and the U.K. have revealed that educators encountered obstacles while managing students with mental health issues. For instance, educators are unprepared and lack confidence in handling such students (Gulliver et al., 2018; McAllister et al., 2014; Margrove et al., 2012). More than 50% of academic staff in the United States (U.S.) were also found unprepared to identify mental health issues and to communicate

with students at-risk for mental health issues (Albright & Schwart, 2017). In addition, handling students with mental health issues was proven to negatively impact educators (Mary Christie Institute, 2021). Educators felt anxious and stressed about being involved in handling students' mental health issues, and they struggled to respond to students due to inadequate mental health knowledge (Gulliver et al., 2018; McAllister et al., 2014). The additional time spent after office hours to assist students with mental health issues also increased educators' workload (McAllister et al., 2014). Considering the frequent student contact and high prevalence of mental health issues among students, academic staff are indispensable in providing help and support to students with mental health issues (Margrove et al., 2014).

1.2 Problem statement

Tertiary education students are a population with an increased prevalence of mental health issues due to changes in lifestyle and multiple stressors in universities (Scholz et al., 2016; Pedrelli et al., 2015; Kamarudin et al., 2009). Mental health literacy has been shown to have significant impacts on mental health of tertiary education students, as evidenced by how they manage their mental health and their help-seeking behaviours (Kim et al., 2020; Kelly et al., 2007). Previous studies investigating university students' mental health literacy mainly adopted quantitative methods to assess students' mental health literacy level and their ability to recognise mental illness (Vasquez, 2016). The underlying factors contributing to the escalating mental health issues among university students, particularly during and post COVID-19 pandemic, remain elusive. Specifically, there is a dearth of studies examining tertiary education students' beliefs, knowledge, and attitudes towards mental health and mental illness, including in Malaysia. By employing a qualitative research

approach, we can gain better insight into students' understanding of mental health and mental health issues, as well as identify areas where additional education and resources are needed to improve their mental health literacy.

Educators have a significant role in supporting students' mental health since they frequently interact with students in tertiary institutions (Gulliver et al., 2018). It is crucial to be aware of educators' difficulties in supporting students' mental health so they can improve the quality of support provided to students. Several studies that have reported educators' challenges in supporting students' mental health were conducted primarily in Western countries (Gulliver et al., 2018; McAllister et al., 2014; Margrove et al., 2012). Therefore, these findings may not reflect the actual situation of Malaysian educators due to differences in culture, values and educational contexts. We believe that the results of this study can be employed to improve professional development programmes, allowing Malaysian educators to acquire the necessary knowledge and skills to provide better support for students' mental health. Furthermore, we also explore the mental health literacy of tertiary education students from the viewpoint of educators. Educators' first-hand observations on students' mental health literacy will undoubtedly inform the development of mental health interventions tailored to students' needs.

Effective mental health services are essential in maintaining good mental health among students. In recent years, governments, higher education institutions and the private sector in numerous countries have collaborated to provide mental health services such as counselling, psychiatric assessment and treatment, social and peer support programmes to tertiary education students (Yulia et al., 2021; Relate Malaysia,

2017). Although university students now have access to mental health services, there is still a substantial treatment gap between students with mental health issues and those who receive treatment (Auerbach et al., 2016; Salim, 2010; Yorgason et al., 2008). It is crucial to investigate why tertiary education students do not seek help for their mental health issues.

Notably, the facilitators and barriers to mental health help-seeking reported in previous studies were mainly from research undertaken in Western countries. In Malaysia, there is a paucity of research examining tertiary education students' perspectives on mental health help-seeking. Given the multicultural background, diverse values and different healthcare systems in Malaysia, it is possible that the previous findings may not apply to the Malaysian student population. Hence, this study is needed to explore the barriers and facilitators to mental health help-seeking among Malaysian tertiary education students. The evidence from this study may provide essential information for establishing the fundamental components of mental health literacy interventions that can help individuals improve their mental health and help-seeking behaviours in the future.

1.3 Research questions

1. What are the knowledge, attitudes and beliefs of university students regarding mental health and mental illness?
2. What are the facilitators and barriers to mental health help-seeking among university students?
3. What are the roles and challenges faced by educators in supporting university students' mental health?

1.4 Objectives of the study

1.4.1 General objective

To investigate mental health literacy among youths attending tertiary education institutions from the perspectives of students and educators.

1.4.2 Specific objectives

- a) To explore tertiary education students' knowledge, belief and attitudes regarding mental health and mental illness from the perspectives of students and educators.
- b) To explore tertiary education students' perspectives on facilitators and barriers to mental health help-seeking.
- c) To identify educators' perceived roles and challenges in supporting students' mental health within tertiary education settings.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The information in this chapter is divided into five main sections. The first section includes the definition of mental health and mental illness, risk factors contributing to poor mental health, impacts of poor mental health and the prevalence of mental health issues among tertiary education students. The second section expounds on the definition of mental health literacy, previous studies which assessed tertiary education students' mental health literacy levels, factors that influence students' mental health literacy, as well as components of mental health literacy. The third section discusses mental health services available for university students and the barriers and facilitators to students' mental health help-seeking. While the fourth section, educators' roles and challenges in supporting students' mental health will be reviewed. Lastly, knowledge gaps in existing literature are discussed.

2.2 Mental health of tertiary education students

2.2.1 Definitions of mental health and mental illness

The World Health Organisation (2003) defines mental health as a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, work productively and fruitfully and contribute to her or his community. This definition suggests that mental health is more than just the absence of mental illness. Mental health exists as a complex continuum that is experienced differently by each individual, with varying degrees of difficulty and discomfort (World Health Organisation, 2022a). It is known to have substantial impacts on individuals' daily lives since it affects their ability to think, live and enjoy life (World

Health Organisation, 2022a). On this basis, the significance of promoting, protecting and restoring mental health is strongly emphasised as a global priority for individuals, communities and societies (World Health Organisation, 2022a).

While for mental illness, it is characterised as a health disorder involving emotional, cognitive or behavioural disturbances (or a combination of these) (World Health Organisation, 2022b; Njoku, 2022). Mental illness is associated with distress or/and impairment in areas of functioning such as social, occupational or family activities (World Health Organisation, 2022b). The commonly reported mental illnesses include anxiety disorders, depression, bipolar disorder, schizophrenia and eating disorders (World Health Organisation, 2022b).

2.2.2 Prevalence of mental illness among tertiary education students

Mental health issues are one of the most significant contributors to the global burden of disease and disability (World Health Organisation, 2017a). According to World Health Organisation (2022b), approximately 970 million or 1 in 8 people worldwide experience mental health issues in their lives.

The number of tertiary education students struggling with mental health issues is a particular growing concern as post-secondary education is a peak onset period for mental illness, even though this period is often conceptualised as a time of positive personal development (Ibrahim et al., 2013; Evans et al., 2009). For instance, an earlier study showed that university students in Australia (83.9%) experienced a higher level of psychological distress compared to their non-university attending counterparts (29%) (Stallman 2010). Besides, a series of surveys conducted in 19 colleges across

eight countries reported that 35% of students had at least one of the common lifetime mental disorders, while 31% of the students suffered at least one 12-month mental disorder (Auerbach et al., 2018). In addition, another recent study that examined the prevalence of psychological distress among 4760 university students in Italy found that 78.5% of students experienced psychological distress, with 36.1% experiencing severe distress (Porru et al., 2021). In the UK, more than 50% of university students were found to experience high levels of anxiety and depression (Chen & Lucock, 2022).

In Malaysia, mental health issues are more prevalent among younger adults, accounting for 34.7% of teenagers aged between 16- to 19-year-old, followed by 32.1% of those aged between 20- to 24-year-old (Ahmad et al., 2015). As university-attending youth usually age between 18 to 25-year-old (Tilley, 2014), it is reasonable to postulate that tertiary education students are more likely to experience mental health issues than other age groups. Two cross-sectional studies conducted in Malaysia using Depression Anxiety Stress Scale (DASS) have discovered that anxiety (34-60%) was more prevalent among tertiary education students than depression (27.3-27.5%) and stress (18-22.6%) (Latiff et al., 2014; Shamsuddin et al., 2013). Students in the older age group (20 years old and above) experienced greater levels of anxiety and depression, possibly due to the increased workload during their senior years (Shamsuddin et al., 2013). Besides, male or Malay students were found to be more depressed compared to female or non-Malay students (Latiff et al., 2014).

The COVID-19 pandemic that began in 2020 has exacerbated mental health issues among tertiary education students (Sundarasan et al., 2020). In the early stages

of the outbreak, most countries including Malaysia restricted their citizens' social activities to contain the infection (Sundarassen et al., 2020). Online learning and delayed admission to universities were strategies to combat the pandemic in tertiary educational institutions (Sundarassen et al., 2020). All these changes have caused a significant impact on students' socio-psychological well-being (Sundarassen et al., 2020). YoungMinds (2020), a registered mental health charity for children and young people, reported that 83% of university students in the UK with a history of mental illness suffered worsened pre-existing mental health conditions throughout the pandemic. Besides, Patsali et al. (2020) observed elevated levels of anxiety (65%) and depression (12.43%) associated with an increase in suicidal attempts (2.59%) among university students during the COVID-19 pandemic. In the U.S., an interview survey was carried out to investigate the impact of the COVID-19 pandemic on the mental health of university students, and 71% of the students indicated that they suffered substantial levels of stress and anxiety (Son et al., 2020).

2.2.3 Causes of mental illness among tertiary education students

Several causes of mental illness among tertiary education students have been reported in the literature and are explained in the sub-sections below:

2.2.3(a) Academic factors

High workload pressure: The academic workload and extracurricular activities can be stressful for university students (Robotham & Julian, 2006). Nowadays, students have to deal with various assignments and presentations to fulfil their graduation requirements. Besides, they must participate in extracurricular activities to secure a place in the hostel. The workload pressure is overwhelming for

students as they struggle to manage time and meet deadlines (Robotham & Julian, 2006). As a result, students may suffer mental distress, which further impairs their performance (Robotham & Julian, 2006). In addition, healthcare students, such as medical and nursing students with heavy workloads were found to experience more significant anxiety and depression than other undergraduates ($p < 0.05$) (Fares et al., 2016).

Fear of poor performance: Most university students devote significant time to academic pursuits in order to thrive in examinations. However, receiving lower grades in examinations may cause students to have higher risks of experiencing mental health issues (Yusoff, 2013; Stallman, 2010). A study conducted in Malaysia has shown that university students who failed their final examination had significantly higher stress, anxiety and depression symptoms compared to those who passed the examination ($p < 0.05$) (Yusoff, 2013). In addition, the prevalence and severity of mental health issues among university students were also found to increase during the examination time ($p < 0.01$) (Scholz et al., 2016).

Peer competition: Competition can be a double-edged sword for university students (Li et al., 2022). While it may inspire students to put in extra effort in their studies, it can also result in undue stress and discourage perseverance (Li et al., 2022). According to Posselt & Lipson (2016), perceived intense competition in the classroom was associated with 37% higher odds of screening positive for depression and 69% higher odds of screening positive for anxiety in students.

2.2.3(b) Socio-environmental factors

Transition to university: Transitioning to university is a great challenge for university students as they have to leave their hometown and adjust to college life (Pedrelli et al., 2015). The significant change in life may worsen students' pre-existing mental health conditions or trigger the first onset of mental illness (Pedrelli et al., 2015). First-year or international students were found to be particularly susceptible to mental illness due to life adjustments (Cage et al., 2021; Forbes-Mewett & Sawyer, 2016).

Lack of support network: Evidence shows that there is a significant negative relationship between social support and psychological disorders including depression ($\beta = -0.255$, $p < 0.01$) and anxiety ($\beta = -0.157$, $p < 0.05$) (Bukhari & Afzal, 2017). Poor relationships with family members and friends may increase the likelihood of university students developing mental health issues (Alsubaie et al., 2019). Another study also revealed that social support from family and friends is a predictor of depressive symptoms and has shown to have a significant negative correlation ($p < 0.05$) (Alsubaie et al., 2019).

COVID-19 Pandemic: During the COVID-19 pandemic, university students experienced increased anxiety and depression, leading to increased suicidal attempts (Patsali et al., 2020). In the U.S., 71% of students reported substantial stress and anxiety, while 30% experienced varying degrees of anxiety in Malaysia during the pandemic (Son et al., 2020; Sundarasan et al., 2020). The pandemic has led to increased mental health issues among students, primarily due to fear of their own and

family health, concentration difficulties, sleep disruptions, reduced social interactions and concerns about academic performance (Son et al., 2020).

2.2.3(c) Financial factors

Financial stress is one factor that can largely influence students' mental health. Poor family income, childhood poverty and insufficient financial support resulted in various mental health issues in university students (Li et al., 2019; Sznitman et al., 2011). A survey of over 3000 UK students indicated that 50% believed that their mental health suffered as a result of financial difficulties (Butler, 2018)

2.2.4 Impact of mental illness on tertiary education students

a) Poor interpersonal relationship

Previous research indicates that mental illness may negatively impact university students' social experiences and academic performance (Salzer, 2012). Students with mental health issues often fail to engage in campus activities, resulting in poor relationships with peers, lecturers and administrators (Salzer, 2012). This could be due to the symptoms of mental illness or the side effects of psychotropic medications, which cause them to feel lethargic and unable to participate in school activities fully (Salzer, 2012). Moreover, students with mental health issues are often less sociable as they lack interest in meeting new people or building relationships, leading to a greater social distance from other people (Salzer, 2012).

Additionally, stigma and negative beliefs regarding mental illness may affect students' campus involvement and interactions with others (Olney & Brockelman, 2003). Students who struggle with mental health issues are frequently rejected and

treated differently at university as some people may see them as lacking academic skills, unruly and prone to violence (Olney & Brockelman, 2003). As a result, mentally unwell students that have poor interpersonal relationships with people around them may contribute to the escalation of social problems (Salzer, 2012).

b) Declined academic performance

Mental illness has a significant impact on several academic success-related qualities such as cognitive functioning, concentration, memory and learning abilities (Grøtan et al., 2019; Trivedi, 2006). Students with mental health issues often face academic decline due to their inability to cope with the high expectations and stress of assignments and examinations (Grøtan et al., 2019; Salzer, 2012). A cross-sectional study in Norway reported that students with severe mental distress were more likely to report low academic self-efficacy [Odds Ratio (OR) 4.55 (95% Confidence Interval (CI) 2.79-7.42)] and delayed study progress [OR 2.47 (95% CI 1.19-5.13)] than those with less mental distress (Grøtan et al., 2019). Similarly, another study in Romania reported that the academic performance of undergraduate medical students with either depression [Grade point average (GPA) =8.11] or anxiety (GPA=8.24) or both anxiety and depression (GPA=8.06) was lower compared to students without mental health issues (GPA=8.31) (Mihailescu et al., 2016). In addition, according to a review by Kuh et al. (2006), students with mental health issues (86%) had a higher withdrawal rate from colleges compared to the general student population (45%).

2.3 Mental health literacy

2.3.1 Definition

Health literacy is the ability to obtain, comprehend and apply knowledge in ways that promote and maintain good health (Nutbeam, 1993). This concept has attracted attention over the last few decades due to its significant benefits to humankind, public health and healthcare systems (Nutbeam, 2000). Mental health literacy, developed by adopting principles of health literacy, was first introduced in 1997 by Anthony Jorm (Jorm et al., 1997). It is defined as “*knowledge and beliefs about mental illness that aid their recognition, management and prevention*” (Jorm et al., 1997). Mental health literacy encompasses five main components, including (a) ability to recognise specific disorders, (b) knowledge and beliefs of risk factors or causes, (c) knowledge and beliefs of self-help and professional help available, (d) knowledge of how to seek mental health information and (e) attitudes that promote recognition and appropriate help-seeking (Jorm et al., 1997). Subsequently, the concept of mental health literacy was expanded to include the importance of reducing stigma, maintaining good mental health and empowering individuals to improve their help-seeking efficacy (Kutcher et al., 2013).

2.3.2 Mental health literacy among tertiary education students

Mental health literacy affects how tertiary education students manage their mental health and their attitudes towards help-seeking (Kim et al., 2020; Kelly et al., 2007). Previous studies have showed that increased mental health literacy reduces stigma, promotes positive help-seeking attitudes and improves outcomes for people with mental illness (Kim et al., 2020; Kelly et al., 2007). Besides, Reichel et al. (2021) observed a significant positive correlation between mental health literacy and the

intention to take preventive actions against mental illness among university students ($r=0.274$, $p<0.01$), suggesting that mental health literacy shall be promoted in interventions to prevent mental disorders. On the contrary, poor mental health literacy is significantly associated with mental illness, including anxiety (OR=3.675, 95% CI 2.861-4.721) and depression (OR=3.089, 95% CI 2.607-3.662) (Huang et al., 2021). Inadequate mental health literacy in university students had shown to have significant higher risks of developing depressive and anxiety symptoms compared to those with adequate mental health literacy (20.3% vs 7.5%, $p<0.001$) (Huang et al., 2021). Therefore, enhancing mental health literacy should be a priority for tertiary education students to improve their mental health and reduce the burden of mental healthcare professionals.

2.3.2(a) Mental health literacy level of tertiary education students

A literature search was conducted using the terms "mental health literacy", "university students" and "college students" in two electronic databases, namely PubMed and Scopus. The selection of articles was based on the following criteria: (i) studies written in English and published in peer-reviewed journals; (ii) study population included university or college students; (iii) articles focusing on mental health literacy. A total of 58 eligible articles were obtained to produce a narrative review of mental health literacy of tertiary education students. This section only presented 13 studies that assessed the mental health literacy level of tertiary education students using validated questionnaires or tools (see table 2.1), while the remaining studies will be further discussed in sections 2.3.3 and 2.3.4. Section 2.3.3 will discuss about the components of mental health literacy whereas 2.3.4 will include factors affecting mental health literacy of tertiary students.

Of the 13 included studies, seven studies [Table 2.1 (a)] assessed the mental health literacy level of tertiary education students using Mental Health Literacy Scales (MHLS). The seven studies that employed MHLS were mainly conducted in Western countries [U.K. (n=2), Australia (n=1)] and Middle Eastern countries [Saudi Arabia (n=2), Turkey (n=1)], with another one in Asian country (Korea=1). MHLS is the first scale-based measure designed to comprehensively assess six attributes of mental health literacy (O'Connor & Casey, 2015). It consists of 35 items with strong psychometric properties and is easily administered and scored (O'Connor & Casey, 2015). A higher score, ranging from 35 to 160, indicates improved mental health literacy (O'Connor & Casey, 2015). The included studies collectively showed that tertiary education students from the Western countries scored higher on the MHLS than non-Western countries. For instance, Australian students achieved the highest mean score for mental health literacy (M=131.02), followed by British students (M=122.8-123.5) (Saito & Creedy, 2021; Gorczynski et al., 2020; Gorczynski et al., 2017). In contrast, students from non-Western countries such as Saudi Arabia and South Korea scored only 112.53 and 106.8, respectively (Almanasef, 2021; Kim et al., 2020).

In addition, some researchers [Table 2.1 (b)] examined students' mental health literacy using other pre-existing scales or items (n=3), while some worked on specific disorders (e.g., depression literacy) (n=2). In general, university students had low to moderate mental health literacy (Pehlivan et al., 2020; Rafal et al., 2018; Mahfouz et al., 2016). Nearly 40% of nursing students in a study believed they lacked an adequate understanding of mental health literacy for practice (Saito & Creedy, 2021). Only one

study in Saudi Arabia indicated that their university students had a high level of mental health literacy (Alshehri et al., 2021). Caution must be applied when generalising these studies' findings since most were conducted in a single university or were limited to health sciences students.

However, only one qualitative research on university students' mental health literacy was undertaken. The qualitative study by Khatib & Abo-Rass (2021) in Israel utilised Jorm's conceptual framework to understand university students' knowledge and beliefs about mental health issues. An interview guide was devised based on Jorm's conceptual framework, which comprises six dimensions: (1) identification of mental disorders; (2) knowledge and beliefs regarding risk factors and causes; (3) knowledge and beliefs regarding self-treatment; (4) knowledge and beliefs about the availability of professional help; (5) attitudes that facilitate recognition and help seeking; and (6) knowledge to access mental health information. Most informants were more likely to recognise severe mental illness than mood disorders. They listed a number of potential risk factors for mental illness, including hereditary, environmental, and religious causes. Informants were well informed of the mental health services available except for rehabilitative services. One-half of the informants believed in modern self-treatment, while another half believed in religious therapies. Unfortunately, the majority of them held negative perspectives about mental health help-seeking (Khatib & Abo-Rass, 2021)

Table 2.1 : Summary of studies on mental health literacy level among tertiary education students

a) Quantitative research using Mental Health Literacy Scales (MHLS)

No	Authors, year, country	Study design	Samples	Objectives	Results	Limitations
1	(Almanasef, 2021) Country: Saudi Arabia	A cross-sectional study with a questionnaire adapted from MHLS (35 items) and GHSQ	271 Pharmacy students aged above 18 years old at a university	To examine the mental health literacy among undergraduate pharmacy students and whether mental health literacy is associated with a stronger intention to seek help	Students' mental health literacy was found to be lower than that recorded in the U.K. (M=122.88) and Australia (M=127.38), with a mean score of 112.53 (SD=12.64, range=80–141, 95% CI= 111.02–114.04). A significant positive correlation between mental health literacy and help-seeking behaviours was discovered ($r=0.26$, $p<0.01$).	This study was conducted at one pharmacy institution in Saudi Arabia, and male participants were underrepresented. Since the study was a cross-sectional design, causality could not be established.
2	(Alshehri et al., 2021) Country: Saudi Arabia	A cross-sectional study with a questionnaire adapted from MHLS (28 items Arabia version)	339 female students from three colleges (Medicine, Nursing, Pharmacy) aged above 18 years old at a governmental university	To investigate the mental health literacy levels of Saudi university students	The overall mean score for mental health literacy among university students was 3.43 out of 5 (SD = 1.12), indicating that they had a high level of mental health literacy.	This study was conducted at one single university focused solely on female university students.

3	(Gorczynski et al., 2017) Country: UK	A cross-sectional study with a questionnaire including MHLS, K10, GHSQ and WEMWBS	380 students aged above 16 years old at a university in the South of England	To examine mental health literacy levels of U.K. university students and whether mental health literacy is associated with professional help-seeking intention and better mental health outcomes	The mean score for mental health literacy among university students was 122.88 (SD=12.06, range=87.00-160.00, 95 % CI=121.63-124.06) and it was lower than previous study (M=127.38) conducted in Australia. Mental health literacy was significantly positively correlated with help-seeking behaviour ($r=0.123$, $p=0.017$) but not with distress ($r=0.08$, $p=0.118$) or well-being ($r=0.012$, $p=0.812$).	This study was conducted on undergraduate students at one university in the U.K. Since the study was a cross-sectional design, causality could not be established.
4	(Gorczynski et al., 2020) Country: UK	A cross-sectional study with a questionnaire including MHLS, K10, GHSQ and WEMWBS	300 university students aged 18 years old or older	To explore mental health literacy among university students in the U.K. and the relationship between mental health literacy and help-seeking behaviours	The mean score for mental health literacy among university students was 123.5 (SD = 15.5, Range = 83.0-154.0, 95% CI = 121.8-1265.3) and it was lower than previous study (M=127.38) conducted in Australia due to difference in the representative nature of the sample. There was no significant correlation between mental health literacy and help-seeking behaviours ($p > 0.05$).	Only 9.7% of the entire sample were postgraduate students in this study, and it is possible that those with mental illness were overrepresented. Besides, this study did not take into account race or ethnicity.
5	(Kim et al., 2020)	A cross-sectional study with a	200 students aged 19 years old and above	To investigate the relationships between mental	The mean score for mental health literacy of students was 106.80 (SD=10.58, Range= 35.0-175.0).	This study did not examine help-seeking behaviours but rather assumed that

	Country: Korea	questionnaire including MHLS, ISCI, ATSPPH, SSRPH, SSOSH and Perceived Barriers to Care Scale	from four universities	health literacy and help-seeking intentions among university students	Mental health literacy had a direct effect on attitudes towards help-seeking ($\beta = 0.23$, $p = 0.019$) and an indirect effect on attitudes towards help-seeking through stigma ($\beta = 0.35$, $p = 0.008$),	college students' intentions would lead them to seek help. Self-reported survey approach and previous exposure to mental health information could lead to bias.
6	(Pehlivan et al., 2020) Country: Turkey	A cross-sectional study with questionnaire including MHLS, K10 and MHL assessment.	417 students with a mean age of 20.19 ± 1.34 years at a public university in Turkey	To assess university students' mental health literacy and psychological distress levels	University students had a low mental health literacy level, with MHLS median=90 (Range= 60–115) and MHL median=12 (Range= 1–20). A negative and moderate significant correlation was found between students' mental health literacy and psychological distress (Spearman's $\rho = -0.58$, $p < 0.05$, $\rho^2 = 0.33$).	The research was carried out at a single university and only a low number of students from non-health disciplines participated.
7	Saito & Creedy, 2021) Country: Australia	A cross-sectional study with a questionnaire including MHLS, opened and closed-ended questions	114 nursing students with a mean age of 27.76 ± 10.18 years at one Australian university	To investigate nursing students' mental health literacy and their learning needs in this area.	Mean score for students' mental health literacy was 131.02 (SD= 10.22). Nearly 40% of participants believed they lacked an adequate understanding of mental health literacy for practice and sought further information on the types and management of mental illness, as well as	The research was conducted at a single university with a low response rate. Additionally, the use of a self-reported survey could induce bias as well.

		about learning needs of mental health literacy			communication skills with people who have mental illness. Besides, they suggested that mental health first-aid training should be made mandatory for all nursing students.	
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MHLS=Mental Health Literacy Scale

K10= Kessler Psychological Distress Scale

GHSQ= General Help-Seeking Questionnaire

ISCI=Intentions to Seek Counselling Inventory

WEMWBS= Warwick-Edinburgh Mental Well-being Scale

ATSPPH=Attitudes Toward Seeking Professional Psychological Help

SSRPH=Stigma Scale for Receiving Psychological Help

SSOSH=Self-Stigma of Seeking Help Scale

b) Quantitative research using other items or scales

No	Authors, year, country	Study design	Samples	Objectives	Results	Limitations
1	(Furnham et al., 2011) Country: UK	A cross-sectional study with a questionnaire including a set of questions on 97 mental illnesses obtained from DSM-IV	426 students with a mean age of 21.29 \pm 2.98 years at four British universities	To assess mental health literacy of university students	Respondents in this study were familiar with just over one-third (37.3 % \pm 14.8%) of the various disorder. Anorexia nervosa (86.4%), anxiety disorder (85.9%), schizophrenia (82.4%), Parkinson's disorder (81.7%) and autistic disorder (80.5%) were the	The sample in this study was highly unrepresentative even though it had a large sample size because it was limited to social science students who had undergone clinical

					most familiar conditions among students. Respondents who perceived more disorders as common also believed them as more treatable ($r=0.415$, $p<0.01$).	psychology training. This study favoured examining the recognition of mental illness among students rather than investigating how well they understand mental illness.
2	(Mahfouz et al., 2016) Country: Saudi Arabia	A cross-sectional study with an Arabic structured questionnaire measured mental health literacy (30 items)	557 students with a mean age of 21.5 ± 1.5 years at a university in Saudi Arabia	To examine mental health literacy and attitudes towards mental illness among university students	About 90.3% of university students had an intermediate mental health literacy (overall mean score=2.04, SD=0.31). Students' attitudes towards mentally ill people were mixed, with a higher proportion (54.2%) of respondents holding positive attitudes.	The study results may not be generalisable to other countries as some items of the original questionnaire were modified to be compatible with the Saudi context. Additionally, the research was conducted at a single university.
3	(Rafal et al., 2018) Country: US	A cross-sectional study with a questionnaire adapting 26 item multicomponent scales for mental health literacy, psychosocial factors and intention for help-seeking	1242 university students aged 18 and above at a south-eastern university in the U.S.	To assess mental health literacy, psychosocial determinants and intention for help-seeking among male university students	Male university students demonstrated a low level of mental health literacy ($M=43.95$, $SD=6.68$, range=0-84), a high level of self-stigma towards help-seeking ($M=12.32$, $SD=4.23$, range=5-25) and a low intention to seek help for mental health issues ($M=11.79$, $SD=5.74$, range=0-21).	This study had a poor response rate. Besides, many races were combined into a same category for analysis purposes.