

# The Development of Adolescent Mental Health Services in Malaysia: A Review

Hezzrin Mohd Pauzi<sup>1</sup>, Najiah Mohamad Sahide<sup>1</sup>

<sup>1</sup>Faculty of Applied Social Sciences, University Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia,

Corresponding Author Email: hezzrinpauzi@uniswa.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v13-i12/19395> DOI:10.6007/IJARBSS/v13-i12/19395

**Published Date:** 17 December 2023

## Abstract

Despite a rise in the prevalence of mental health concerns among adolescents worldwide, care access and engagement remain low, ranging from 20% to 45%. For the long-term improvement of adolescent well-being, it is crucial to address this issue and effectively engage adolescents in mental health services. Providing mental health services in place of acute health care facilities (such as inpatient psychiatric care, residential treatment centers, or specialized mental health clinics) is one of the effective strategies for addressing these issues. This study investigated the implementation and development of mental health services for adolescents in Malaysia, employing a qualitative design for the content analysis. Research data was collected through search engines such as Google Scholar, ResearchGate, Scopus, and others. Keywords such as “mental health issues in Malaysia, and “adolescent mental health programs” represented and reflected the core premise of this research. This study discovered three primary themes: the development of mental health services, the method of mental health intervention, and mental health and the COVID-19 pandemic. It was determined that there were research gaps concerning mental health programs in Malaysia. Thus, studies to bridge the gap may periodically examine mental health issues. It may dramatically alleviate mental health issues and lower the number of young people in the country with emotional disorders.

**Keywords:** Mental Health, Adolescents, Mental Health Services, Malaysia

## Introduction

The exploration of adolescent mental health treatment in Malaysia holds significant importance and serves as a critical area of focus. The mental well-being of adolescents has a crucial role in shaping their overall welfare, academic performance, and future trajectories. During the period of adolescence, individuals experience a multitude of notable physical, emotional, and social transformations, rendering this stage particularly susceptible to mental health concerns. Thus, the study of mental health development knowledge in Malaysia, can

increase awareness and reduce the stigma of mental health among the community, especially adolescents and families.

Global health challenges include the prevalence of mental health disorders among adolescents, characterized by significant emotional, cognitive, or behavioral changes (World Health Organisation [WHO], 2020). The worldwide prevalence of any mental disorder diagnosis among young people (those between the ages of 10 and 25) was between 10 and 20 percent (WHO, 2020). The most prevalent mental health issue Between the ages of 12 and 17 was anxiety, and for children between the ages of 10 and 19, depression is among the most prevalent (WHO, 2020). According to UNICEF (2021), East Asia, the Pacific, and South Asia had the highest prevalence of adolescents with mental disorders. Moreover, suicide is the second leading cause of death among adolescents in Western Europe, the United States, Eastern Europe and Central Asia (UNICEF, 2021).

In addition, there is no doubt that the COVID-19 pandemic has had a significant global impact that has worsened adolescents' mental health worldwide and that the prevalence of psychological distress among adolescents has more than doubled (Organisation for Economic Co-operation and Development, 2019). Consequently, adolescent mental health must continue to be a global priority because, according to Caspi et al. (2020), 80 percent of mental disorders typically develop before age 25.

According to WHO (2021), ten percent of adolescents and children worldwide suffer from mental disorders, most of whom do not seek aid or medical care. Furthermore, suicide is the fourth leading cause of death among 13 to 19-year-old adolescents (WHO, 2021). Thus, insufficient attention to this issue might increase the population's mortality rate. Moreover, mental health disorders may hinder the psychosocial development of adolescents and persist throughout adulthood, reducing their chances of living productive lives.

In spite of the increasing prevalence of mental health concerns among young people worldwide, mental health care access and adolescent engagement in mental health treatment remain low, ranging from 20% to 45% (Costello et al., 2014; Rocha et al., 2015). For the long-term improvement of adolescent well-being, it is crucial to alleviate this problem and effectively engage adolescents in mental health services. Providing mental health services in place of acute health care facilities (such as inpatient psychiatric care, residential treatment centres, or specialised mental health clinics) is one of the effective strategies for addressing these issues.

In light of the repercussions and consequences on adolescents' mental health, it is essential to identify effective interventions and evaluate their implementation in an effort to avoid this problem from worsening and affecting the adolescents' next stage of adolescence. Providing mental health programs in the community, schools, and/or families is one of the interventions conducted.

According to Jamaiah (2000), the various mental health treatment delivery models may be categorised into three major groups: hospital- or institution-based, community- or deinstitution-based, and integrated decentralised approaches. Institution Hospital-based interventions are mostly medically oriented and include mentally ill individuals as a target group. Admission, diagnosis, treatment, and discharge are examples of the practice. The deinstitutional community-based focuses mostly on psychosocial concepts, with mentally ill individuals as the target group. The practice of this model, such as an arranged social environment (housing, employment, support network), develops life skills and coping skills. This practice focuses on community treatment. Furthermore, the integrated decentralised approach pertains to wellness notions encompassing healthy, risky, and mentally ill

individuals. This approach focuses on mental health awareness, early detection, treatment, follow-up, and psychosocial rehab (Jamaiyah, 2000).

### **Methodology**

This article was based on content analysis and the review of past studies, including journal articles and books related to implementing adolescent mental health programs. Search engines, particularly Google Scholar, ResearchGate, and Scopus, have been utilized to find articles on mental health using various keywords, including “mental health issues in Malaysia” and “adolescent mental health programs”. The search for sources of articles on mental health was conducted using snowball searching. In addition, library methods have also been employed to obtain more comprehensive information on adolescent mental health.

### **Recent Studies On Mental Health In Malaysia**

The National Adolescent Health Policy is a government initiative in Malaysia that prioritizes the health of adolescents. The policy defines adolescent health as the state of a person’s physical, mental, social, and spiritual well-being that enables them to live productively and healthily in an environment that supports their future adult health (Ministry of Health Malaysia, 2019). This policy aims to safeguard and promote adolescent development so that adolescents are aware of their health responsibilities and are equipped with the information and skills required to participate actively in healthy behaviors (Ministry of Health Malaysia, 2019).

The Adolescent Health Program is one of the initiatives the National Adolescent Health Policy has implemented. The Adolescent Health Program is a component of the expanded scope of the Ministry of Health Malaysia initiative, which seeks to strengthen and expand adolescent health services. Adolescent Health services are administered in all health clinics nationwide and are focused on individuals between the ages of 10 and 19 (Ministry of Health Malaysia, 2019). This demonstrates that the development and welfare of society in Malaysia emphasized the health of adolescents. Thus, this study aims to investigate the implementation and development of mental health services for adolescents in Malaysia.

There have been numerous studies on mental health intervention programmes for the mentally ill based on institutional hospital-based and institutional community-based programmes. Nevertheless, this study was conducted to contribute to the body of knowledge by examining some aspects of previous studies on mental health intervention among adolescents in Malaysia. Table 1 summarises the results and reviews of the development and implementation of adolescent mental health services in Malaysia.

**Table 1:***Findings and Reviews of the Development and Adolescent Mental Health Services in Malaysia*

|    | <b>Author (Year)</b>                              | <b>Title</b>   | <b>Reviews</b>   |
|----|---|--|--|
| 1. | Zakaria, Sasagawa & Essau (2021)                  | Exploring the impact of a transdiagnostic cognitive behavioural therapy-based intervention on a group of Malaysian adolescents with problematic drug use and emotional problems. | <p>This study provided empirical evidence for the effectiveness of SSL-A in decreasing emotional issues and substance usage among adolescents who had problematic substance consumption.</p> <p>Following the session, the adolescents reported fewer emotional symptoms and higher prosocial behaviour. Following their participation in SSL-A, these adolescents also utilised less unhealthy emotion-regulation mechanisms and consumed less alcohol.</p> <p>Therapy outcomes included a reduction in loneliness and an increase in psychological health and self-esteem).</p>  |
| 2. | Mohammadzadeh, Awang, Ismail, Kadir Shahar (2019) | Improving emotional health and self-esteem of Malaysian adolescents living in orphanages through Life Skills Education program: A multi-centre randomised control trial          | <p>Self-administrated questionnaires were employed in the study. Inaccurate data or a misinterpretation of the questions might result from this, which could lead to bias.</p> <p>The result of the study indicated that immediately after completing the interventional sessions (post-test), the mean scores of depression, anxiety, stress and self-esteem were considerably lowered compared to the pre-test values.</p> <p>The depression mean scores, however, did not substantially vary between the two groups.</p> <p>The mean scores of all 4 variables, including depression, anxiety, stress, and self-esteem, substantially altered when group and test interactions were examined.</p> |
| 3. | Mohammadzadeh, Awang, Hayati, Ismail (2017)       | The effects of a life skills-based intervention on emotional health, self-esteem and coping mechanisms in Malaysian institutionalised  | It provided an opportunity to evaluate the effects of participation in a life skills-based programme on institutionalised Malaysian adolescents' emotional and behavioural health.   |

|    |   |  |   |
|----|---|--|---|
|    |   | adolescents:<br>Protocol of a<br>multi-centre<br>randomised<br>controlled trial.   |   |
| 4. | Phang, Sherina,<br>Zubaidah, Noor<br>Jan, Firdaus,<br>Siti Irma, Normala<br>(2015)        | Prevalence of<br>Psychological<br>Stress among<br>Undergraduate<br>Students<br>Attending a Health<br>Programme at a<br>Malaysian<br>University | An effective technique for fostering student mental health and well-being is often incorporating such health initiatives into college and university activities.<br><br>It has been proved that the health programmes implemented at higher institutions are beneficial as students have given positive feedback and have sought treatment for their mental health.   |
| 5. | Shaeraine Raaj,<br>Sujesha<br>Navanathan,<br>Myelone<br>Tharmaselan,<br>John Lally (2021) | Mental disorders<br>in Malaysia: an<br>increase in lifetime<br>prevalence  | This review examined Malaysia's current legislative framework and the obstacles to administering mental healthcare and treating mental disorders.<br><br>Substantial revisions to Malaysian mental health legislation have occurred, including a service-level transition from custodial care to community care and the establishment a research and organisational development foundation to enhance mental health service delivery.<br><br>Societal stigma and a lack of awareness about mental health disorders remain significant hurdles to improving mental health treatment. Consequently, national mental health education efforts are required to address these challenges.<br><br>More mental health funding will be necessary to address service availability and delivery problems and boost the proportion of psychiatrists and mental health providers in Malaysia. |
| 6. | Wong,<br>Bonn,<br>Tam,<br>Wong<br>(2018)  | Preferences for<br>Online and/or<br>Face to Face<br>Counselling<br>among University<br>Students in<br>Malaysia                                 | This study examined the potential of online delivery and/or face-to-face counselling.<br><br>The result showed that about 35% of this study's participants strongly preferred online counselling.   |
| 7. | Midin,<br>Zainal,<br>Lee,<br>Ibrahim,   | Mental health<br>services in<br>Malaysia   | This article presented some information about the population's needs for mental health services, the country's mental health care system and the  |

|    |   |   |  |
|----|---|---|--|
|    | (2018)  |   | <p>current level of development in mental health services.</p> <p>Additional service components for establishing a service model in mental health were proposed as follows:</p> <ol style="list-style-type: none"> <li>1. Illness prevention activities and public education</li> <li>2. Primary mental health services</li> <li>3. Specialised community mental health services</li> <li>4. Specialised hospital-based mental health services</li> <li>5. Residential and non-residential rehabilitation services</li> </ol>  |
| 8. | Beckstein, Rathakrishanan, Hutchings & Mohamed (2020) | The Covid-19 Pandemic and Mental Health in Malaysia: Current Treatment and Future Recommendations | <p>This study examined current treatment options and crisis management in light of COVID-19.</p> <p>In order to overcome mental health concerns amid the pandemic, the following variables need to be taken into account:</p> <ol style="list-style-type: none"> <li>1. Multicultural considerations: Many Malaysian ethnicities have more traditional religious practises and reliance on traditional healers, which may be incompatible with cutting-edge mental health treatment procedures based mostly on Western theories.</li> <li>2. Government support services and hotlines</li> </ol> |
| 9. | Abdul Ghani et al. (2021)                             | Effect of Virtual exercise on Mental Health Status During the Covid-19 Pandemic                   | <p>This research employed a newly modified instrument to assess the mental health state of the population participating in a virtual physical exercise (VPE) programme during MCO.</p> <p>The findings indicated substantial improvements in mental health status [i.e., stress, anxiety, and depression levels decreased after participating in virtual physical exercise (VPE) (M = 14.5, SD = 13.6)]. In addition, depression was substantially correlated with stress and anxiety before and after participating in VPE (p = 0.00).</p>  |

|     |                                       |  |   |
|-----|---------------------------------------|--|---|
|     |                                       |  | However, this study was conducted only in the southern region of Malaysia. This study only recruited a small sample size (100 participants).  |
| 10. | Haque (2005)                          | Mental health concepts and program development in Malaysia                               | <p>This study explored mental health concepts among the various ethnic/religious groups in Malaysia and traced the country's development of mental health services.</p> <p>The mental health care model was also well outlined in this study. This study presented recommendations for enhancing mental health services.</p>  |
| 11. | Chong (2013)                          | The mental health development in Malaysia: History, Current Issue and Future Development | <p>This paper aimed to examine the development of mental health services from the period of independence to the new millennium.</p> <p>The researchers investigated the mental health institution regarding government plans, policies, and mental health resources provided by professional service providers.</p> <p>This study recommended more research into the perspectives of multiracial family caregivers.</p>                                 |
| 12. | Hassan, Hassan, Kassim, Hamzah (2018) | Issues and Challenges of Mental Health in Malaysia                                       | <p>This research aimed to gather community perceptions on mental health issues and challenges in Malaysia.</p> <p>Many themes were discussed concerning mental health issues and challenges, including:</p> <ol style="list-style-type: none"> <li>1. Challenges: Lack of awareness and ignorance, stigma, and policy insurance.</li> <li>2. Issues- Incaresign prevalent mental illness, work-related stress, and negative economic impact.</li> </ol> |

A review of prior mental health research in Malaysia yielded 12 papers from 2021 to 2005 pertaining to the mental health study. The analysis revealed various issues of mental health research that may be explored in this study, including the development of mental health services, methods of mental health intervention, as well as mental health and the COVID-19 pandemic.

### ***The Development of Mental Health Services***

Mental health problems are rising at all levels of Malaysian society, resulting in a growing need for mental health services. Midin et al. (2018) emphasised the necessity for mental



health services in the community. The study also emphasised the need to develop a comprehensive and effective mental health service system for individuals with mental illness. Midin et al. (2018) recommended establishing mental health services in Malaysia, including activities for illness prevention and public education, primary mental health services, specialized community mental health services, specialized hospital-based mental health services, and residential and residential and non-residential rehabilitation services.

Similarly, Chong (2013) and Haque (2005) highlighted effective mental health services. The government's mental health strategy also influenced the implementation of the programme. These studies emphasized the best possible model, considering demographic variables, resources, and professional service providers.

Hassan et al. (2018) examined the issues and challenges associated with mental health issues. The study indicated that the prevalence of health disorders rose due to work-related stress and the economic downturn. Nonetheless, this problem was regarded with disdain due to the stigma widespread in society. In reality, there are still many individuals who are unaware of mental health issues. The study drew attention to the significance of a person's mental health and demonstrated that it required consideration as it influenced a person's life.

### ***Methods of Adolescent Mental Health Interventions***

There were five research on mental health interventions, particularly in the setting of adolescents. Zakaria, Sasagawa, and Essau (2021) investigated the effects of a transdiagnostic CBT-based intervention (Super Skills for Life, SSL-A) on emotional issues among adolescents who used problematic drugs, as well as the demographic characteristics that influenced the intervention's effectiveness. In this study, 108 adolescents with problematic drug use and elevated levels of anxiety and depression were recruited from eight juvenile homes and reform schools. Participants completed a series of questionnaires to assess their drug use, mental health issues, cognitive emotion regulation mechanisms, loneliness, and lifestyle before and after the intervention.

The study found that adolescents who received the intervention had fewer emotional symptoms but more prosocial behavior. After participating in SSL-A, these adolescents used fewer maladaptive approaches for emotion regulation and consumed less alcohol. Women outperformed males regarding reduced loneliness and improved psychological health and self-esteem after the session. These results provided empirical evidence for the effectiveness of the SSL-A in reducing psychological issues and drug abuse among adolescents with problematic substance use.

According to Mohammadzadeh et al. (2019), they studied an intervention program through the Life Skills Education Program (LSE) introduced by the World Health Organization (WHO). LSE is an organized, evidence-based program that promotes psychological health, positive behavior, and community adjustment among various populations. This randomized controlled trial study indicated that the LSE intervention program used with orphanage-dwelling adolescents positively impacted their emotional health and self-esteem. In this study, 271 male and female adolescents aged 13 to 18 from eight orphanages in the Klang Valley of Malaysia participated.

Muhammadzadeh et al. (2017) investigated the effects of a life skills-based intervention on the emotional health, self-esteem, and coping strategies of institutionalized adolescents in Malaysia. This study served as the basis for continuous, systematic education in life skills for Malaysian children and adolescents. Muhammadzadeh et al. (2019) continued their study on intervention programs through the Life Skills Education Program (LSE). The



findings of this study indicated that this intervention program could serve as an effective approach to enhancing the mental health and self-esteem of orphanage-dwelling adolescents. Furthermore, LSE is a cost-effective program that local trainers may effectively administer without needing specialized equipment. Nevertheless, this study has limitations regarding the instrument that both employed the same instrument (DASS 21). Second, self-administered questionnaires were employed in the research. This might result in inaccurate data or misunderstanding of the questions, which could lead to bias.

Meanwhile, Wong (2018) investigated the viability of online delivery and/or in-person counseling. Participating in a survey were 409 students from six Malaysian universities. The majority of respondents, around 35%, indicated that they would likely engage in online counseling services but were unlikely to attend in-person sessions. Given the stigma associated with mental health illnesses in many Asian cultures as well as the difficulty and cost of physically seeking therapy, according to Wong (2018), many individuals did not seek conventional face-to-face counseling. Different delivery online services of synchronous (e.g., live chat via video, Skype, or voice) and asynchronous (e.g., live chat via text, email, or messaging).

Phang et al. (2015) conducted research at a Malaysian university. In addition to poster exhibitions, video screenings, screenings, and forums, the study included putting up a booth for mental health screenings for adolescents who participated in the Youth Health Exhibition Program. Psychiatrists and other psychiatric department employees administered assessments of mental health. The assessment was completed using the 12-item General Health Questionnaire/GHQ-12 and questions about the socio-demographic information of the participants, including their gender, ethnicity, and year of study.

The study's findings revealed that 49.3% (N=151/306) of Malaysian university undergraduates who participated in a health program reported experiencing psychological stress. This study's findings on the prevalence of psychological stress among university students were comparable to those of domestic and international research conducted previously on the topic. No statistically significant correlation existed between the socio-demographic variables examined ( $p > 0.05$ ). In this study, the prevalence of psychological stress was highly independent of gender, ethnicity, year of university study, or frequency of medical visits. This study demonstrated the effectiveness of the university's health program as it garnered positive feedback from students and was embraced by students seeking mental health assistance.

### ***Mental Health and the Covid-19 Pandemic***

In addition, two studies on mental health were conducted during the COVID-19 pandemic. According to Beckstein et al. (2020), several factors must be considered while addressing mental health issues during the COVID-19 pandemic. The first aspect was intercultural concerns. Several Malaysian tribes adhere to more traditional religious practices and depend on traditional healers, which may be incompatible with cutting-edge mental health treatment processes primarily based on Western theories. In Malaysia, there is still a great deal of stigma around mental health, with some individuals believing that experiencing difficulties in life is shameful (Beckstein et al., 2020).

Nonetheless, the government has launched mental health programs such as "Let's Talk Minda Sihat" to decrease the stigma associated with mental health issues. The majority of hospitals in Malaysia provide mental health care that may mitigate the pandemic's impacts. Mercy Malaysia, a non-profit organization, and the Ministry of Health (MOH, a government

organization) established a hotline and support service for those suffering from pandemic-related anxiety.

Like in many other countries, several mental health experts in Malaysia have started to provide telepsychology through audio or video calling. Several institutions in Malaysia provide telepsychology and even some in-person counselling to students with more severe issues. The Mental Health and Psychosocial Support plan has been implemented. It provides psychological first-aid services and support to affected people, those quarantined on suspicion of COVID-19, other responders dealing with the virus, and healthcare professionals (Beckstein et al., 2020).

During the COVID-19 pandemic, Abdul Ghani et al. (2021) investigated the effectiveness of virtual exercise on mental health status. Stress, anxiety, and depression levels decreased after participating in virtual physical exercise (VPE;  $M = 14.5$ ,  $SD = 13.6$ ). In addition, there was a strong correlation between depression stress, and anxiety prior to and after participation in VPE ( $p = 0.00$ ). Nonetheless, this research was conducted exclusively in the southern region of Malaysia. This study employed only small sample size (100 participants). However, participation in VPE throughout the quarantine and restricted movement period might improve mental health.

### **Conclusion**

It is crucial to address the mental health concerns of adolescents seriously. Additionally, due to the impact and severity of this condition, it is essential to determine the effectiveness of interventions implemented in the form of individual, family, or community mental health services. It may also enhance the future effectiveness and efficiency of mental health program implementation.

This review study reveals several accomplishments in delivering mental health services to adolescents. Various intervention methods and programs demonstrate the effectiveness of mental health services during the COVID-19 pandemic. They are transdiagnostic CBT-based intervention (Super Skills for Life), Life Skills Education Program (LSE), online delivery counseling, mental health booth program, telepsychology via audio or video calling, and virtual physical exercise. Overall, it has been established that implementing mental health programs in Malaysia may be enhanced with continued evaluation. As recommended, future research may concentrate on relevant evaluation techniques for mental health programs, including incorporating related models and theories to offer a new model for assessing the implementation of an adolescent mental health program in Malaysia.

### **Acknowledgment**

The authors acknowledge the financial and technical support for this Fundamental Research Grant Scheme project provided by the Ministry of Higher Education Malaysia (MOHE) under the grant (FRGS/1/2021/SS0/UNISZA/02/3-RR421)

### **References**

- Caspi, A., Houts, R., Ambler, A., et al. (2020). Longitudinal assessment of mental health disorders and comorbidities across 4 decades among participants in the Dunedin birth cohort study. *JAMA*, 3(4), e203221.
- Cheney, G., Schlösser, A., Nash, P., & Glover, L. (2014). Targeted group-based interventions in schools to promote emotional well-being: A systematic review. *Clinical child psychology and psychiatry*, 19(3), 412-438.

- Clarke, A. M., Kuosmanen, T., & Barry, M. M. (2015). A systematic review of online youth mental health promotion and prevention interventions. *Journal of youth and adolescence, 44*(1), 90-113.
- Costello, E. J., He, J. P., Sampson, N. A., Kessler, R. C., & Merikangas, K. R. (2014). Services for adolescents with psychiatric disorders 12-month data from the National Comorbidity Survey Adolescent. *Psychiatric Services, 65*(3), 359–366.
- Das, J. K., Salam, R. A., Lassi, Z. S., Khan, M. N., Mahmood, W., Patel, V., & Bhutta, Z. A. (2016). Interventions for adolescent mental health: an overview of systematic reviews. *Journal of Adolescent Health, 59*(4), S49-S60.
- Farahmand, F. K., Duffy, S. N., Tailor, M. A., DuBois, D. L., Lyon, A. L., Grant, K. E., ... & Nathanson, A. M. (2012). Community-based mental health and behavioral programs for low-income urban youth: A meta-analytic review. *Clinical Psychology: Science and Practice, 19*(2), 195-215.
- Hassan, M. F. bin, Hassan, N. M., Kassim, E. S., & Hamzah, M. I. (2018). Issues and Challenges of Mental Health in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 8*(12), 1685–1696.
- Harrod, C. S., Goss, C. W., Stallones, L., & DiGuseppi, C. (2014). Interventions for primary prevention of suicide in university and other post-secondary educational settings. *Cochrane database of systematic reviews, (10)*.
- Jamaiyah, H. (2000). Community mental health in Malaysia: Marriage of psychiatry and public health. *Buletin Kesihatan Masyarakat Isu Khas, 2000*, 155-166.
- Ministry of Health Malaysia. (2019). Adolescent Health Sector: Policy. Retrieved from <https://fh.moh.gov.my/v3/index.php/kesihatan-remaja>
- Mohammadzadeh, M., Awang, H., Hayati, K. S., & Ismail, S. (2017). The effects of a life skills-based intervention on emotional health, self-esteem and coping mechanisms in Malaysian institutionalized adolescents: Protocol of a multicenter randomized controlled trial. *International Journal of Educational Research, 83*, 32-42
- Mohammadzadeh, M., Awang, H., Ismail, S., & Kadir Shahar, H. (2019). Improving emotional health and self-esteem of Malaysian adolescents living in orphanages through Life Skills Education program: A multi-center randomized control trial. *PloS one, 14*(12), e0226333
- Ng YP, Rashid A, O'Brien F (2017) Determining the effectiveness of a video-based contact intervention in improving attitudes of Penang primary care nurses towards people with mental illness. *PLoS ONE 12*(11): e0187861.
- O'Mara, L., & Lind, C. (2013). What do we know about school mental health promotion programmes for children and youth? *Advances in School Mental Health Promotion*.
- Organization for Economic Co-operation and Development [OECD]. (2019). *Supporting young people's mental health through the COVID-19 crisis*. In *Tackling Coronavirus: Contributing to a global effort*. OECD.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *Systematic reviews, 10*(1), 1-11.
- Phang, C. K., Sherina, M. S., Zubaidah, J. O., Noor Jan, K. O. N., & Firdaus, M., Siti Irma, F. I., & Normala, I. (2015). Prevalence of psychological stress among undergraduate students attending a health programme in a Malaysian University. *Pertanika J Sci Technol, 23*, 29-35.

- Rocha, T., Graeff-Martins, A., Kieling, C., & Rohde, L. (2015). Provision of mental healthcare for children and adolescents: A worldwideview. *Current Opinion in Psychiatry*, 28(4), 330–335.
- Shinohara, K., Honyashiki, M., Imai, H., Hunot, V., Caldwell, D. M., Davies, P., ... & Churchill, R. (2013). Behavioural therapies versus other psychological therapies for depression. *Cochrane Database of Systematic Reviews*, (10).
- UNICEF. (2021). The state of the world's children 2021. *On my mind: promoting, protecting and caring for children's mental health*. UNICEF.
- World Health Organisation. (2020). *Adolescent mental health*. Retrieved August 23, 2022, from [https:// www. who. int/ newsroom/fact- sheets/ detail/ adolescent- mental- health](https://www.who.int/newsroom/fact-sheets/detail/adolescent-mental-health)
- World Health Organization. (2021). *Adolescent mental health*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
- Wong, K.P., Bonn, G., Lam, C.L., & Wong, C.P. (2018). Preferences for Online and/or Face-to-Face Counseling in Malaysia. *Frontiers in Psychology*, 9, 64
- Zakaria, S., Sasagawa, S., & Essau, C. A. (2021). Exploring the impact of a transdiagnostic cognitive behavioral therapy-based intervention on a group of Malaysian adolescents with problematic drug use and emotional problems. *Addictive Behaviors Reports*, 14, 100381