TECHNICAL REPORT

Contributing Factors To Psychological Distress, Coping Strategies, And Help-seeking Behaviours

Among Adolescents Living In The Klang Valley People's Housing Project (PPR)

TECHNICAL REPORT

CONTRIBUTING FACTORS TO PSYCHOLOGICAL DISTRESS, COPING STRATEGIES, AND HELP-SEEKING BEHAVIOURS

AMONG ADOLESCENTS LIVING IN THE KLANG VALLEY PEOPLE'S HOUSING PROJECT (PPR)

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Suggested citation:
Institute for Health Behavioural Research (2023). Contributing Factors to Psychological Distress, Coping Strategies, and Help-Seeking Behaviours Among Adolescents Living in the Klang Valley People's Housing Project (PPR). National Institutes for Health, Ministry of Health Malaysia.

Published by:
Institute for Health Behavioural Research (IHBR)
National Institutes of Health (NIH)
Ministry of Health Malaysia

National Institutes of Health (NIH)
No.1, Jalan Setia Murni U13/52
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FOREWORDS

The COVID-19 pandemic has had far-reaching impacts on the mental health and well-being of people around the world, with young people being among the most affected. While Malaysia has transitioned from the pandemic to the endemic phase, the ongoing disruption of lives and communities continues, with many young people still struggling with the mental health fallout and implications of the pandemic. Addressing mental health issues among adolescents has become increasingly urgent.

Adolescents are susceptible to mental health issues due to the challenges and stressors of this critical period of development. However, adolescents living in low-cost housing are at even higher risk due to compounding factors such as poverty, limited education, inadequate healthcare access, social exclusion, and exposure to environmental hazards. These factors increase their vulnerability to shocks like pandemics, natural disasters, and economic downturns. The COVID-19 pandemic has further exacerbated their situation, as identified by UNICEF's 2021 Families on the Edge report.

Building on this influential piece of research, the current report aimed to determine the contributing factors for psychological distress among adolescents living in low-cost flat communities during the COVID-19 pandemic in Malaysia. The research highlights the urgent need to strengthen the delivery and support of mental health services for adolescents living in these communities. The findings of this study will inform the design, delivery, and evaluation of a targeted community-based mental health and psychosocial support intervention, which will contribute to supporting the most vulnerable communities.

We hope that this report will serve as a valuable resource for policymakers, health professionals, and relevant authorities and stakeholders working to address the mental health needs of adolescents living in low-cost housing areas. By working together, we can build a brighter future for all children and families. We extend our sincere appreciation to the researchers from Institute for Health Behavioural Research, the chairpersons of the low-cost flats, Kuala Lumpur City Hall, the Selangor Housing and Property Board and particularly the adolescents and families who shared their experiences and insights.

I hope that you will find this report useful.

Robert Gass
Representative,
UNICEF Malaysia

FOREWORDS

The COVID-19 pandemic has taken a huge toll on mental health. It has affected not only adults, but also adolescents, who have to adapt new ways of living, such as online learning, financial difficulties and social issues. WHO estimates that depression and anxiety have increased by more than 25% since the pandemic began.

The MOH views this matter seriously and has provided various mental health intervention services and initiatives to assist those who are affected. In addition, MOH via the National Institutes of Health, has carried out several studies to better understand mental health conditions of the population. This is one such study, focused on adolescents, completed with the support of UNICEF. The findings of this study have enabled MOH to cooperate with other agencies to understand and manage the mental health problems among adolescents better, and provide solutions for them to cope with their existing mental health problems.

Notwithstanding the efforts and initiatives taken by MOH and related NGOs and agencies, it is important for the individuals, and the public themselves, to have awareness on how to manage and cope with stress in these trying times, to maintain healthy lifestyles, to support each other and to seek the necessary professional help if required.

"Kita Jaga Kita".

Tan Sri Dato' Seri Dr Noor Hisham bin Abdullah
Director General of Health
Ministry of Health Malaysia

FOREWORDS

The COVID-19 pandemic has brought about unprecedented challenges and changes to our daily lives, and its effects have been felt all over the world. The pandemic has not only affected physical health but also the mental health of people, especially the most vulnerable in society. Adolescents living in low-cost housing in Malaysia are no exception, and the impact of the pandemic on their mental health needs to be studied and addressed.

This report highlights the importance of addressing the mental health needs of adolescents, who are the future of our society, and the need for increased support from the government and relevant organizations to ensure their wellbeing. The findings of this research will provide valuable insights into the mental health needs of these adolescents and inform the development of effective interventions to support them during this challenging time. By providing a comprehensive examination of the factors contributing to the mental health of this population, this report will contribute to the development of policies and interventions that can effectively support their needs. The findings of this research will serve as important evidence for policymakers and stakeholders, as they work to create a more supportive and inclusive environment for adolescents living in low-cost housing in Malaysia during these challenging times.

It is my hope that this report will raise awareness of the mental health status of adolescents during the COVID-19 pandemic and encourage actions to improve their situation.

Datuk Dr Muhammad Radzi bin Abu Hassan
Deputy Director General of Health (Research and Technical Support)
Ministry of Health Malaysia

FOREWORDS

The emergence of the COVID-19 virus has transformed the Malaysian landscape and had a substantial impact on Malaysians, particularly on mental and physical health. The MOH has mobilized all of its resources to protect the health of Malaysians throughout the pandemic, including for research institutes responsible for conducting COVID-19 research, notably on the pandemic's impacts on mental health.

Significantly, the Institute for Health Behavioural Research (IHBR) is a research facility that primarily performs behavioural sciences research to promote population health through policy and intervention actions. IHBR contributed to research on vaccination acceptability, lifestyle behaviour, the new norm, and the impacts on mental health during the pandemic. This study of which involved 32 Kuala Lumpur PPRs and five Selangor PPRs, is particularly relevant. Based on the findings, we believed that behavioural insight strategies must be included in interventions to address the issue of mental health.

Ultimately, our heartfelt appreciation and gratitude go to UNICEF for supporting this study, as well as to everyone involved, notably the chairpersons of the PPRs, Kuala Lumpur City Hall, and the Selangor Housing and Property Board, and we look forward to sharing more journeys together.

Dr Manimaran a/l Krishnan
Director, Institute for Health Behavioural Research
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ACKNOWLEDGEMENTS

We would like to thank UNICEF for funding and supporting this study.

We would also like to thank all officers from the Ministry of Local Government Development (KPKT), Kuala Lumpur City Hall (DBKL) and Selangor Housing and Property Board (LPHS) for the approval to conduct this study and facilitate access to all of the PPRs. In addition, our thank you to all of the Heads of Residents' Association of each PPR for their approval and assistance in enabling efficient data collection. We are grateful for their valuable contributions toward our national efforts in improving mental health among our adolescents.

We gratefully acknowledge the invaluable contributions by colleagues at the National Centre of Excellence for Mental Health, MOH and the Non-Communicable Diseases Section, Disease Control Division, MOH, the State Health Department of WP Kuala Lumpur & Putrajaya and State Health Department of Selangor. Additionally, we also thank our Family Medicine Specialists colleagues who provided counselling and follow-ups for the adolescents who were referred for further management.

We also thank Dr Ponnusamy Subramaniam (UKM), Professor Dr Khatijah Lim Abdullah and Dr Zabri Johari who have contributed their subject matter expertise to this research. To Ms. Aimi Nadiah Mohamad Norzlen and Ms. Jayasuria a/p Ravinthiran, we would like to thank you both for the contribution given to make the data collection of the study a success.

We would like to thank all of the parents, guardians and adolescents for participating in this study.

Lastly, we thank the Director General of Health Malaysia for his permission to publish this technical report.

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ABBREVIATIONS

BSSK	Health Status Screening Form (*Borang Saringan Status Kesihatan*)
COVID-19	Coronavirus disease 2019
DASS	Depression, Anxiety and Stress Scale
DBKL	Kuala Lumpur City Hall (*Dewan Bandaraya Kuala Lumpur*)
GAD-7	Generalised Anxiety Disorder scale
IDI	In-depth Interview
IHBR	Institute for Health Behavioural Research, MOH
JKM	Department of Social Welfare (*Jabatan Kebajikan Masyarakat*)
KK	Health Clinic (*Klinik Kesihatan*)
KPKT	Ministry of Local Government Development (*Kementerian Pembangunan Kerajaan Tempatan*)
LINUS	Literacy and Numeracy Screening Program (*Program Saringan Literasi dan Numerasi*)
LPHS	Selangor Housing and Property Board (*Lembaga Perumahan dan Hartanah Selangor*)
LPPKN	National Population and Family Development Board (*Lembaga Penduduk dan Pembangunan Keluarga Negara*)
MCO	Movement Control Order
MOE	Ministry of Education
MOH	Ministry of Health, Malaysia
MREC	Malaysian Medical Research and Ethics Committee, MOH
NCEMH	National Centre of Excellence for Mental Health, MOH
NGO	Non-governmental organization
NHMS	National Health and Morbidity Survey
NIH	National Institutes of Health
NMRR	National Medical Research Register, MOH
PdPR	Home-based teaching and learning (*Pelaksanaan pengajaran dan pembelajaran di rumah*)
PHQ-9	Patient Health Questionnaire
PPR	People's Housing Project (*Projek Perumahan Rakyat*)
PT3	Form 3 Assessment (*Pentaksiran Tingkatan 3*)
PTSD	Post-traumatic Stress Disorder
RT	Research Team
SPM	Malaysian Certificate of Education (*Sijil Pelajaran Malaysia*)
TVET	Technical and Vocational Education and Training
UKM	National University of Malaysia (*Universiti Kebangsaan Malaysia*)
UNICEF	United Nations Children's Fund
WHO	World Health Organization

EXECUTIVE SUMMARY

The impact of COVID-19 on the population is widespread and the low socio-economic group had the worse impact. In Malaysia, this group includes those living in the People's Housing Project (PPR). Adolescents living in PPR communities are some of the most vulnerable populations of adolescents in the urban setting, as they were already experiencing pre-existing conditions of vulnerability. The impact of the COVID-19 pandemic crisis further aggravated these deprivations and low-income families in PPR communities are disproportionately affected. Understanding the adolescents' mental health status and coping strategies in dealing with the pandemic are crucial to comprehend the impacts of the pandemic on the mental health and wellbeing of adolescents and how the challenges in the context of families, psychosocial and housing conditions can influence their mental health and wellbeing.

The main objective of this study is to determine the mental health status of adolescents living in Klang Valley PPRs during the COVID-19 pandemic; with two specific objectives:

1. To determine the prevalence of psychological distress among adolescents living in the PPRs during the COVID-19 pandemic; and
2. To explore the source of psychological distress, coping strategies and their help-seeking behaviour in dealing with psychological distress among adolescents living in the PPRs during the COVID-19 pandemic.

This was a mixed-methods study funded by UNICEF. The participants were adolescents aged 10 to 17 years living in selected PPRs in the Klang Valley. From the 37 PPRs, a total of 1,578 adolescents completed the questionnaire and 47 participated in the in-depth interviews (IDIs). Data collection commenced on 1 April 2022 and ended on 30 September 2022.

Overall, our study found that 12.3% of adolescents aged 10 to 17 years old living in PPRs have psychological distress. Of these, 10.7% have depression symptoms, and 7.2% with anxiety symptoms. In addition, 212 participants (13.4%) reported suicidal and self-harm thoughts.

Depression symptoms were found to be significantly higher among females, older age group (16-17 years old), owning electronic device, risky behaviour, living with single parent/guardian and with working

mothers. Anxiety symptoms were found to be significantly higher among females, older age group (16-17 years old), risky behaviour and longer duration living in PPRs.

Six main themes for factors of psychological distress were identified: (i) Challenges of online learning; (ii) Financial difficulties; (iii) Relationship issues; (iv) Impact of social isolation; (v) Pandemic-related stressors; and (vi) Living environment.

While we identified several adaptive coping strategies i.e., social support, spiritual support and tension reduction, we also found several maladaptive coping strategies i.e., avoidance, self-harm, vaping and smoking. Lastly, with regards to help-seeking behaviour, the respondents sought help from formal sources and informal sources. Several hindrances for help-seeking were identified, including lack of trust, perceived ineffectiveness of support and personality of the individual.

Based on the findings of the study, we would like to make the following recommendations to reduce the level of psychological distress, improve help-seeking behaviour and encourage more adaptive coping strategies:

Strengthen and expand mental health services for adolescents

i. Expand the current scope of the PeKa B40 program to cater for adolescents for early screening for mental health.
ii. Leverage on the existing MySejahtera application for the self-screening platform, and link with the Mental Health Services for further intervention.
iii. Enhance and increase accessibility of community-based mental health services.
iv. Promote safe and inclusive helpline services for every adolescent in Malaysia by emphasizing confidentiality of the callers and ability to choose the gender of their counsellor to ensure comfort and trust.

Create a community resilient in mental health and ensuring a focus on adolescents in low-income communities

i. Improve mental health literacy among adolescents and their carers (parents, family members, guardians, and peers).
ii. Use related health promotion models and nudges strategies to direct the development of future interventions.
iii. Strengthen strategic collaboration between MOH, other government agencies such as MOE, academia and civil society, in regularly monitoring the communities' mental health condition, and developing suitable interventions based on the findings.
iv. Expand positive support groups among adolescents in tackling social issues, especially on mental health through physical and virtual (online) platforms
v. Identify barriers, attitudes of low trust, and seek solutions to improve help-seeking behaviour practice.

Create a comfortable and supportive living condition for PPR residents

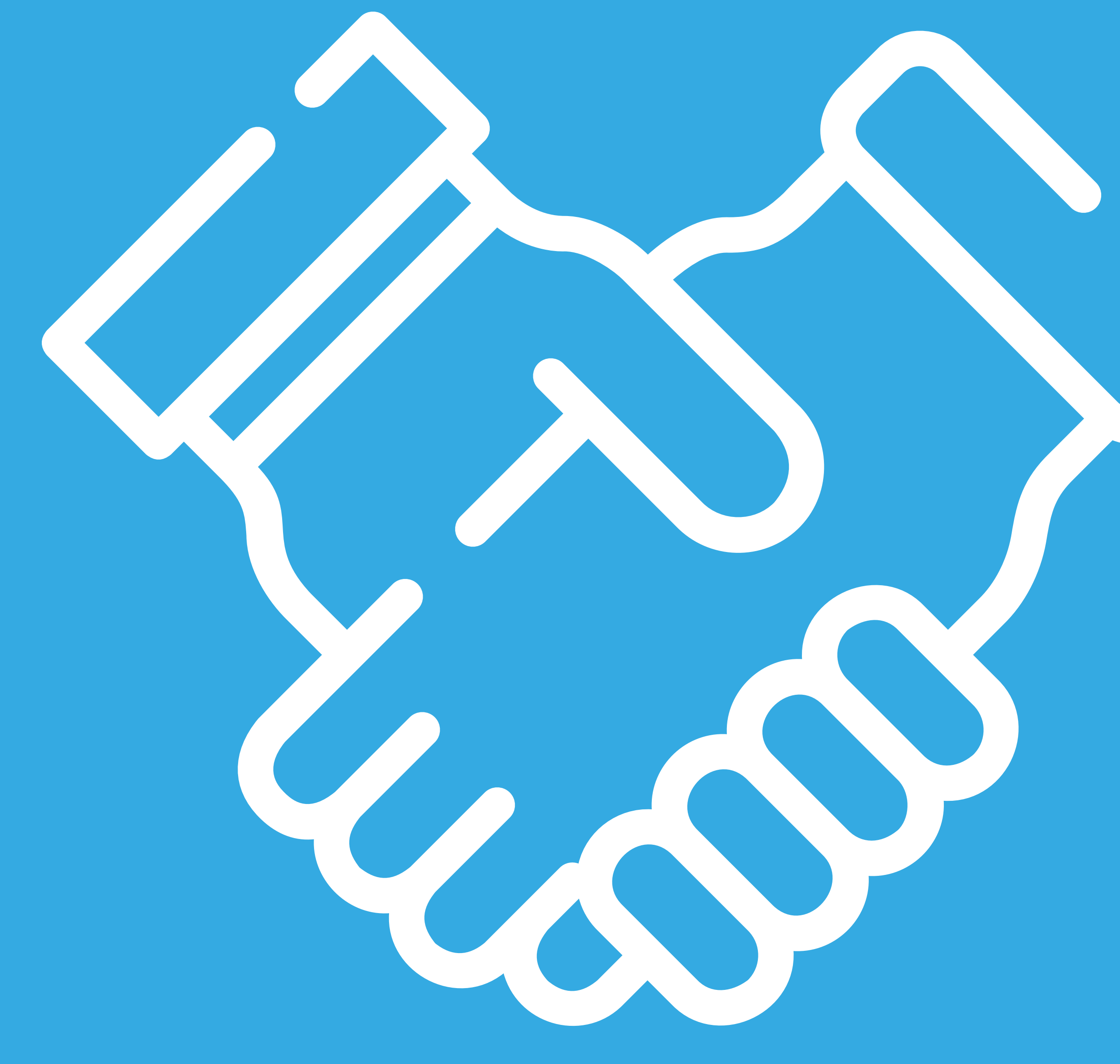
i. Strengthen social entrepreneurship programs in communities to raise income and enhance the financial well-being of the PPR community.
ii. Provide family and individual counselling to the PPR community as needed. This counselling service can be a strategic partnership between the LPPKN, the Social Welfare Department (JKM), health care providers, and universities.
iii. Encourage and provide platforms to PPR communities to increase mental health awareness and to remove mental health stigma through community programs such as leisure and recreational community services and social events.
iv. Create safe, accessible and free spaces to be used by the adolescents living in the PPRs, focusing on the needs of the female adolescents.

Ensure online learning can be conducted effectively for all adolescents in preparation for possible future pandemics, when lockdowns may again be enforced

i. Ministry of Education (MOE) to fully evaluate of the challenges faced by teachers, adolescents, and parents/guardians in the implementation of PdPR, and develop strategies to address all of the challenges identified.
ii. Create, maintain and strengthen supportive infrastructure for conducive online learning.
iii. Prepare teachers by providing training on how to manage online classes and utilizing technology.
iv. Prepare students for a possible return to online learning by fostering a positive attitude towards learning.
v. Establish a monitoring system during online classes to ensure that students are learning effectively and minimize absenteeism.

Invest in the young population by creating an opportunity for learning in vocational areas, and ensuring adolescents in PPR have opportunities to make better choices in education pathways

i. Raise awareness among adolescents and parents/guardians on Technical and Vocational Education and Training. These programs may overcome issues among the PPR adolescents who are less interested to continue schooling or have dropped from schools.
ii. Provide and strengthen career counselling starting in primary and secondary schools to help adolescents make early career plans for themselves and nudge them to make a better career choice.



INTRODUCTION

1. INTRODUCTION

1.1. Background of the Study

This study was implemented under the existing UNICEF Malaysia-IHBR workplan (2021-2025) and this area of research is a priority area for UNICEF. The study proposal was developed by the research team at IHBR and submitted to UNICEF in October 2021. Following discussions, the study proposal was agreed and endorsed by UNICEF on 26 January 2022. Data collection commenced on 1 April 2022 after receiving the approval of the Medical Research and Ethics Committee (MREC) Ministry of Health (MOH) Malaysia, on 24 November 2021 [Ref:(17) KKM/NIHSEC/P21-1528].

In addition to IHBR and UNICEF, the other collaborators for this study are:

1. National Centre of Excellence for Mental Health, MOH
2. National Institutes of Health, MOH
3. Universiti Kebangsaan Malaysia (UKM)
4. Ministry of Local Government Development (KPKT)
5. Kuala Lumpur City Hall (DBKL)
6. Selangor Housing and Property Board (LPHS)

The United Nations Convention on the Rights of the Child defines a child as a human being below the age of 18 years [1]. For the purpose of this study and report, adolescents are defined as 'persons from 10 through 19 years of age' in accordance to the definition adopted by the World Health Organization (WHO) and by UNICEF [2].

1.2. COVID-19 Pandemic

The world was first struck by a novel coronavirus disease (COVID-19) pandemic in 2019. The COVID-19 pandemic has also brought a sense of fear and anxiety around the globe. This phenomenon has led to short-term and long-term psychosocial and mental health implications in adults, children, and adolescents. Despite many studies suggesting that children are minimally susceptible to COVID-19, its psychosocial impact cannot be understated [3].

The quality and magnitude of impact on minors are determined by many vulnerability factors like developmental age, educational status, pre-existing mental health conditions, being economically underprivileged or quarantined due to infection, or fear of infection. In addition to the physical manifestations of COVID-19 disease, the implementation of lockdown also has a detrimental impact on the psychosocial status of the adolescents [4].

Lockdown's enforcement, such as school closure and social distancing, leads to a lack of outdoor activities and aberrant dietary and sleeping habits. The school closure, for example, created a barrier to resources they usually get through school. This situation disrupts their normal lifestyle and causes them to have a monotony, distress, impatience, annoyance and varied neuropsychiatric manifestations [3]. In Malaysia, the government implemented a similar approach to the COVID-19 pandemic starting 18 March 2020 [5]. The implementation of lockdown, while it managed to contain the disease to some extent in the early stage, the subsequent rise in COVID-19 cases resulted in prolonged lockdowns, impacting the psychological status of the adolescents.

The impact of COVID-19 on the population is widespread, and the low socioeconomic group had the worse effect. In Malaysia, this low socioeconomic group includes those living in the People's Housing Project (PPR). Evidence showed that housing conditions could impact the mental health status of the youth during COVID-19 lockdowns. Living with no access to outdoor spaces and in denser households were associated with poorer mental health [6]. Studies also found that poor housing conditions, particularly those living in apartments, having poor views and low indoor air quality, are associated with depressive symptoms during the lockdowns [7].

A mental health survey in the United Kingdom found that 83% of the participants with existing mental illnesses experienced worsened conditions during the pandemic [8]. About 26% did not have access to any mental health support programs. Therefore, mental health support programs for these children are necessary to prevent long-term negative consequences. Studies have found that mental health problems among children can result in long-term effects such as lower educational attainment, employment, and committing crimes [9]. Getting mental health support can be challenging for them, since peer support groups and face-to-face consultations were unavailable during the pandemic due to the lockdowns [10]. Hence, they had to adapt using telephones and online support services.

1.3. Adolescent Mental Health Status during the Pandemic

Mental health issues are common manifestations during an outbreak or pandemic. A study on the H1N1 pandemic on the parents, for example, found that the pandemic significantly affected the mental health status of children [11]. The impact of COVID-19 is also significant on the everyday lives of children and adolescents. In addition, children's mental health status was affected not only by the disease but also by the social distancing resulting from the pandemic [12]. Adolescents aged 15 to 18 accounted for 51% of the 1,708 suicide cases reported from January 2019 to May 2021 [13]. The COVID-19 pandemic and mitigation efforts such as lockdown restrictions have adverse effects on the mental health of many, including our adolescents. Suicide cases almost doubled on average across all age groups in the five months in 2021 (94 cases a month) compared to 2019 (51 cases a month). School closures and online learning was also implemented during the lockdowns. The United Nations estimated that around 862 million children and adolescents were affected by the school closures during the COVID-19 pandemic [14]. This resulted in concerns over the impact of COVID-19 on the psychological status of the children [3].

In addition, getting infected with the disease itself posed as a risk factor of developing mental health issues among children due to being isolated and separated from their parents [15]. It was also found that children present differently according to their age. For example, children under six years old are more likely to worry about their family members contracting the disease. Meanwhile, children aged 6 to 18 years are more easily distracted and persistently curious [16].

According to another study, children and adolescent girls were more susceptible to depressive and anxiety symptoms than their male counterparts [17]. Several studies also found that children living in urban areas have a higher stress and depression rates than rural areas. Similarly, children living in areas with high numbers of cases or epidemic areas were found to have higher scores in terms of fear, anxiety, and other emotional symptoms [6,16,18].

1.4. Factors Related to Psychological Distress

Apart from that, the effect of COVID-19 on adolescents' mental status was highly related to several factors. Few studies found that adolescents' mental health status was influenced by the condition of family and community, such as psychopathology status of their parents, financial conflicts, and stress in the family [19-21]. Other risk factors to mental health issues during the pandemic included violence, existing medical conditions, being contracted by

the disease, vulnerable socioeconomic status, and access to mental health support services. School closures, for example, can aggravate the problem by removing the place where children can express their concern and get access to any mental health support [22].

In addition, a longer duration of quarantine could also result in worse mental health outcomes by limiting their access to medical services and basic supplies [23]. Another school-related behaviour, such as worrying about the negative educational outcome, was also found to impact psychological well-being [24]. Besides, existing mental health disorders may worsen during the pandemic, such as worsening of symptoms and even relapses [10].

Furthermore, pre-existing medical conditions can create additional stress on adolescents [25]. Children of parents with psychological distress were also more likely to develop mental health problems during the pandemic [8]. The situation is worrying since adults were also found to have a higher rate of mental distress during the pandemic [26].

While the impact of the pandemic is considered widespread, lower socioeconomic groups tend to be affected more than the higher socioeconomic groups. Similarly, the pandemic seems to affect the mental health status of adolescents in lower socioeconomic groups more [3,27]. Furthermore, since adolescents from lower socioeconomic groups tend to rely heavily on the school to get the necessary daily living needs such as meals, facilities to play, physical activities, and even the infrastructure for remote learning, school closures may result in inaccessibility to those needs [28], thus, affecting their mental health status and general well-being. In addition, financial distress and unemployment were also more common in these socioeconomic groups, resulting in child abuse and maltreatment, which are among the risk factors for developing mental health problems among adolescents [27].

School closures also significantly impact schoolchildren, especially those who require special education. Due to the change in their daily routines, they are prone to get irritated and frustrated [10]. This increased mental health issues among children, and school closures would interrupt their daily structure. Consequently, it leads to negative effects on mental well-being [10,20,29,30].

Poor housing conditions were also found to increase the likelihood of developing depressive symptoms. For example, a person living in an apartment less than 60m^2 or a poor-quality environment with insufficient natural lighting and living space tends to produce more severe depressive symptoms than those living in a better environment [7].

1.5. Coping Strategies of Adolescents with Mental Health Problem During the Pandemic

The association between stress and distress is mediated through a complex interrelation of coping styles and social supports [31,32]. Coping Strategies is defined as emotional responses, behaviour, or cognitive process, intentional and conscious, following any stressful event [33,34]. Lazarus and Folkman classify coping behaviours into problem solving and emotion-focused coping. It deals with the emotional response and discomfort resulting from the situation [35]. While problem-solving coping strategies involve task orientation, emotion-focused coping strategies involve individual-focused orientation [36]. Subsequently, the avoidance-oriented coping concept was introduced, involving both task and individual-focused orientations [37]. These coping strategies are substantial in explaining why some adolescents developed psychological symptoms while others did not.

Depending on the circumstances, a person can adopt active or passive coping strategies upon exposure to a stressor [38]. Some active coping strategies are:

1. Planning or finding a way to overcome the stress.
2. Acceptance of stressful events.
3. Exploiting the stressful event and learning from it.

Whereas examples of passive coping strategies include:

1. Refuse to accept stressful events.
2. Quit on making efforts to achieve goals.
3. Intensify the stressful feeling.

Previous studies associated active coping strategies with healthy well-being, while passive coping strategies are frequently associated with psychological distress [39]. However, a study also found that passive coping strategies may temporarily relieve stress and deal with misfortunes or difficulties [40].

A study showed that most children cope with pandemics by accepting what is happening. Other coping strategies used include participating in quarantine activities, pretending as if nothing happened, focusing on the advantage of staying at home and others [41]. Nevertheless, coping strategies were found to be used differently between countries. Another study also suggested that older children tend to adopt adaptive coping strategies during the COVID-19 pandemic, particularly by being organized, using their time purposefully, doing structured activities, developing new hobbies, and reading something positive throughout the pandemic [24].

They also tend to cope by sharing their feelings with family members and revaluing their family relationships. In addition, the presence of anxiety symptoms, mood, cognitive and behavioural changes were associated with an emotional-oriented coping strategy. Whereas, adolescents adopting coping strategies by focusing on the positive aspect of the situation tends to have fewer psychological symptoms and are unaffected by the pandemic [41].

A study found that physical activity and sustaining physical health can be protective against mental health issues during a pandemic. Similarly, media entertainment was also associated with lower depression and anxiety cases [28,42,43].

1.6. Help-Seeking Behaviour

Mental health help-seeking can be defined as the process by which an individual seeks support, input, and treatment from formal or informal sources for their psychological needs and distress. Formal sources include clinic services, counsellors, psychologists, medical staff, traditional healers and religious leaders. Informal sources include peer groups and friends, family members or kinship groups and/or other adults in the community [44].

Globally, less than a third of individuals with mental illnesses, both youth and adults, receive treatment from medical professionals [45]. This highlights the low number of people with mental disorders who seek assistance. In Malaysia, the National Health and Morbidity Survey 2019 revealed that only 57.3% of adult Malaysians sought help from healthcare providers [46]. This is similar to the situation in other Asian countries, where help-seeking behaviour is also limited [47,48]. This can be attributed to multiple reasons, including cultural influences that either promote or discourage seeking help for mental health issues. In some Asian communities, discussing and acknowledging mental health and related disorders is seen as embarrassing [49].

Previous research have shown that help-seeking behaviour is influenced by many factors [50]. A study showed that help-seeking behaviour was facilitated by being familiar with the sources of help, and with the individual having the awareness and knowledge to recognize the symptom and problem. Other facilitating factors for help-seeking behaviour among the adolescents included good engagement with the local community, and having a strong and trusting relationship with relevant adults e.g., parents, schoolteachers and school counsellors [51].

On the other hand, barriers for help-seeking behaviour include stigma [52], issues with communication and distrust towards healthcare professionals, negative past experiences with accessing mental health services, and believing that the treatment or intervention is not going to be helpful in addressing their psychological distress [51].

Help-seeking behaviour is closely related to mental health literacy. Mental health literacy refers to the ability to use mental health information to recognize, manage and prevent mental health disorders and make informed decisions about help-seeking and professional support [53]. As such, poor mental health literacy is a significant barrier for help-seeking behaviour due to poor recognition of mental health conditions (self and others) and lack of awareness of available sources of assistance [53].

For addressing help-seeking behaviour, it is essential to increase the level of mental health literacy and also to increase the accessibility and availability of mental health services or support for all children and adolescents in need.

1.7. The People's Housing Project (PPR)

The People's Housing Project (*Projek Perumahan Rakyat* or PPR) are low-cost high-rise flats that have been developed by the National Housing Department (*Jabatan Perumahan Negara* or JPN) in Kuala Lumpur since 1998 [54]. The Malaysian government has allocated billions of Ringgit Malaysia to provide appropriate, affordable, and quality housing to its citizens since 1996, as part of its objective to ensure adequate shelter for all.

The policy of "Zero Squatters by 2005" was established across Malaysia in 1996. Following the economic recession of late 1997, a four-tier pricing system on PPR schemes for squatter resettlement was introduced in cities and major towns to ensure that citizens, particularly those from lower-income categories, continued to benefit from adequate, affordable, and quality housing [55].

1.8. Timeline of the Malaysian Movement Control Order

The Malaysian Movement Control Order (MCO) was a series of national movement restrictions or lockdowns implemented by the Government of Malaysia in response to the COVID-19 pandemic in the country (timeline shown in Figure 1-1) [56-65]. The first MCO started on 18 March 2020, and the lockdown measures included restrictions on movement, assembly and international travel, and mandated the closure of business, industry, government and educational institutions to control transmission of COVID-19 infection. The MCO was extended and relaxed in different phases in 2020 and 2021, including the Conditional MCO (CMCO), Enhanced MCO (EMCO) and Recovery MCO (RMCO). In June 2021, the MCO was included in the National Recovery Plan. Subsequently, beginning on 1 April 2022, Malaysia entered into the Transition to Endemic Phase following the effectiveness of public health preventive and control measures, including of the COVID-19 vaccination program.

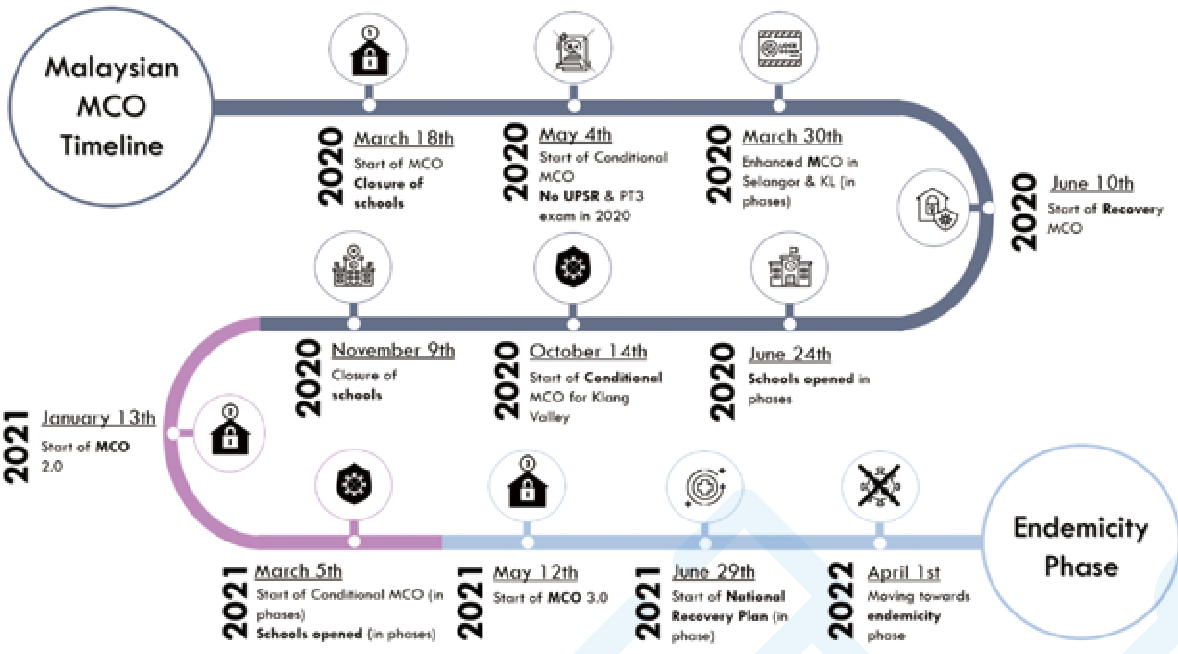


Figure 1-1. Timeline of the Malaysian Movement Control Order

1.9. Study Framework

The framework for this study is shown in Figure 1-2 below.

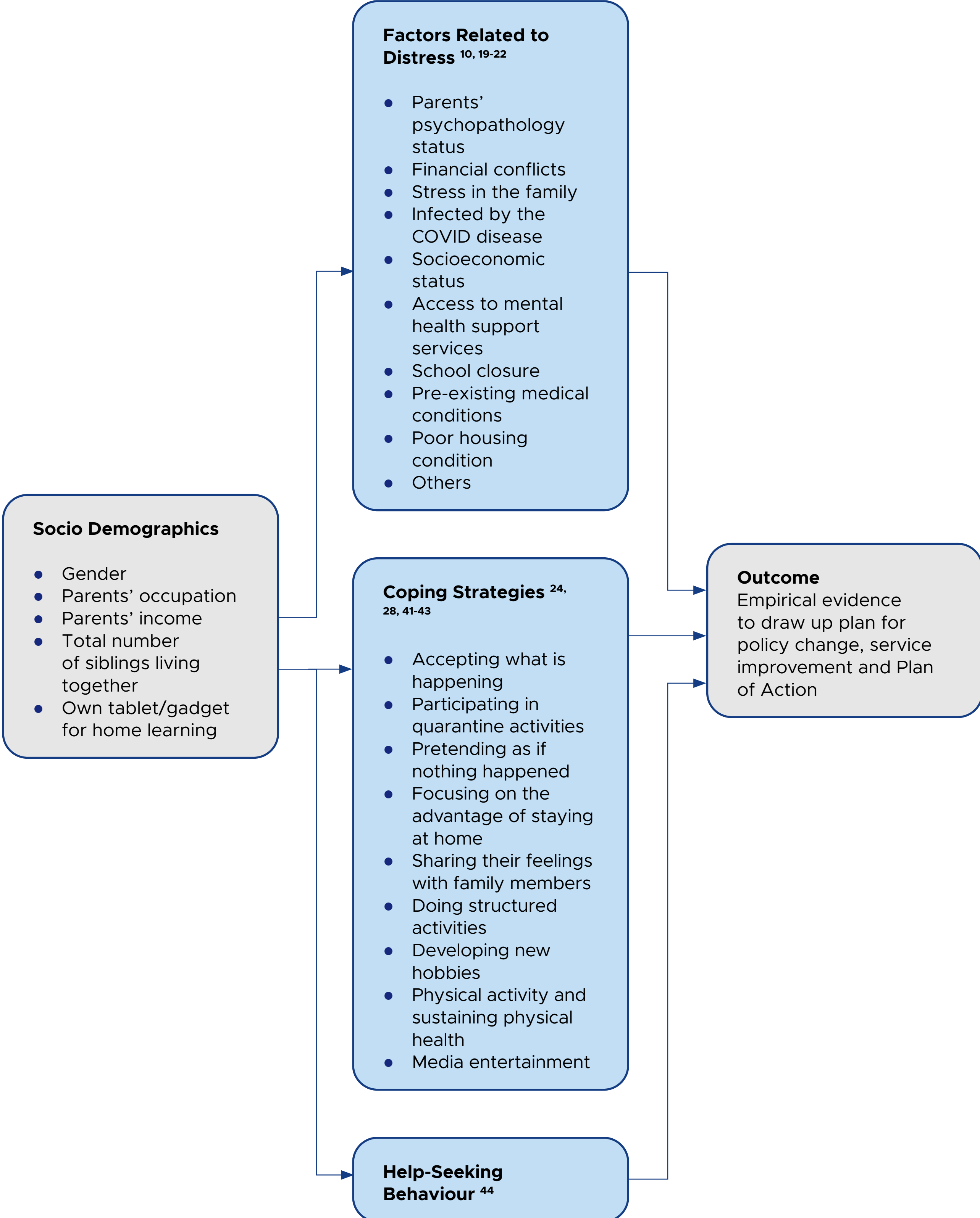


Figure 1-2. Study Framework

1.10. Problem Statement

From our literature review on the Mental Health of the children and adolescents living in the PPRs in Malaysia, adolescents living in the communities are some of the most vulnerable because of the existing conditions. A study found that adolescents from low-income families experienced a significant increase in emotional and behavioural problems and depression [66]. Based on the report published by UNICEF Malaysia in 2021, the impact of COVID-19 has further affected low-income families. Almost half of the parents believed that their children's mental state has been affected by the MCO [67].

There is limited data on the adolescents' level of psychological distress, coping strategies, and help-seeking behaviours in Klang Valley PPRs during the COVID-19 pandemic and this study could give essential data on the mental health status of adolescents living in PPRs.

A related study found that the COVID-19 lockdown has resulted in higher psychological distress among these groups [68] and this further supports the importance of conducting this study. The qualitative component of this study has subsequently explored the contributing factors to psychological distress, coping strategies, and help-seeking behaviour among the adolescents living in Klang Valley PPRs. The findings from this study can assist the policymakers, health professionals, and relevant authorities to prepare more targeted interventions to provide the required mental health support needs by these adolescents.

1.11. Research Objectives

The main objective of this study is to determine the mental health status of adolescents living in Klang Valley PPRs during the COVID-19 pandemic and explore its contributing factors.

There are two specific objectives:

1. To determine the prevalence of psychological distress among adolescents living in the PPR during the COVID-19 pandemic
2. To explore the source of psychological distress, coping strategies and their help-seeking behaviour in dealing with psychological distress among adolescents living in the PPR during the COVID-19 pandemic

1.12. Conceptual and Operational Definitions

Term	Conceptual Definition	Operational Definition
Psychological Distress	Affective cognitive and behavioural response to a crisis-precipitating event that is perceived as threatening and manifested by anxiety and depressive symptoms [69].	Participants who obtained: moderate, moderately severe, and severe for PHQ-9; **and/or** moderate and severe for GAD-7 based on the screening.
Depression	Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration [70].	Participants who obtained a score of 10-14 (moderate), 15-19 (moderately severe) and 20-27 (severe) from PHQ-9 to determine depression.
Anxiety	A prolonged state of apprehension that is brought by an uncertain or unpredictable prospective threat [71].	Participants who obtained a score of 10-14 (moderate anxiety), 15-21 (severe anxiety) from GAD-7 to determine anxiety.
Coping	Coping can be defined as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person [31].	Participants' efforts to manage their psychological distress during the COVID-19 pandemic.
Help-Seeking Behaviour	Any action or activity carried out by an adolescent who perceives herself/himself as needing personal, psychological, affective assistance or health or social services. This includes seeking help from formal services - for example, clinic services, counsellors, psychologists, medical staff, traditional healers, religious leaders or youth programmers - as well as informal sources, which includes peer groups and friends, family members or kinship groups and/or other adults in the community. The "help" provided might consist of a service (e.g., a medical consultation, clinical care, medical treatment or a counselling session), a referral for a service provided elsewhere or for follow-up care or talking to another person informally about the need in question [44].	Participants' action of seeking help from formal or informal sources for their psychological distress.

MENTAL HEALTH SERVICES IN MALAYSIA

2. MENTAL HEALTH SERVICES IN MALAYSIA

2.1. Overview of Malaysia's Mental Health Program

Mental health services in Malaysia dates back since early in the 19th century, when the British rule established three asylums in Malaysia that provided therapeutic care and training. The beginning of the Mental Health Services was marked by the small-scale establishment of the first "lunatic institution" at Penang Hospital in the late 1890s. The colonial navy personnel who had mental illnesses were treated here [72].

There are records of a psychiatric hospital in the Taiping Hospital since 1910. The Federal Lunatic Asylum, which has 280 beds, was later built nearby in Tanjong Rambutan, Perak. In 1928, it was given the new name Central Mental Hospital (CMH). In order to serve the requirements of the people in the south of the nation, Tampoi Hospital (now known as Permai Hospital) in Johor was constructed in 1935. Two similar hospitals were built in Sabah and Sarawak in the 1920s. Despite the fact that these institutions were intended as hospitals, the care provided remained institutional in nature, and the number of people using the mental health services kept rising with a high rate of mortality.

During the second half of the twentieth century, particularly after independence, outpatient services began to be available in general hospitals, rehabilitative services were established, and university-based training began, with the first locally trained psychiatrist graduated in 1975. Since Malaysia's independence from colonial rule in 1957, there has been a significant improvement in the provision of Mental Health Services [72].

Prior to the current Mental Health Act 2001 (Act 615), three regional Acts governed mental health practises: the Lunatic Ordinance of Sabah (1953), the Mental Health Disorders Ordinance (1956), and the Mental Health Ordinance of Sarawak (1961), all of which allegedly prescribed a stigmatizing, segregationist, and custodial approach to mental illness. The MOH established the Mental Health Act in 2001, which was a significant advance since it centralized regulation and specified more humane and up-to-date methods, including less custodial and more therapeutic community services. To govern the Act, the Mental Health Regulation was created in 2010.

In terms of psychiatric and mental health services, Malaysia has shifted towards providing community-based treatment for psychiatry service users, particularly in their own homes with family and community support. In community clinics, there are psychosocial programs that enable persons with mental illness and their families to achieve a high quality of life in their own surroundings.

In 2020, Malaysia has four Mental Institutions with 3,772 beds that offer mental health and psychiatric services, according to its infrastructure and resources. There are also 935 beds in regular hospitals that offer mental health treatment. There is a total of 385 psychiatrists in Malaysia (1 per 100,000 population), where 204 are employed by the MOH, four by the Ministry of Defence, and 177 in academic institutions and private practices [73].

Over the years, the following programs and services were developed and implemented:

1. Healthy Mind Program in Schools
2. Mental Health and Psychosocial Response during Disasters
3. Healthy Mind Services in Primary Care
    a. DASS (Depression, Anxiety, Stress Scale) Mental Health Screening
    b. GAD-7 and PHQ-9 screening tools used for the National Health Screening Initiative (NHSI).
4. Mental Health Services in Primary Care
    a. Integrated mental health screening for adolescents utilizing the BSSK (Health Status Screening Form)
    b. Follow-up of stable mentally ill patients
    c. Home treatment of chronic and difficult patients
    d. Acute home treatment
    e. Psychosocial Rehabilitation service
5. Mental Health Screening under the PeKA B40 Programme

On 21 November 2022, Mr. Khairy Jamaluddin, the previous Minister of Health, officially opened the National Centre of Excellence for Mental Health (NCEMH), MOH. To encourage more people with mental health difficulties to seek help and treatment, NCEMH coordinates all initiatives relating to mental health. Through a bio-psychosocial and spiritual approach, NCEMH's collaboration with non-governmental organizations (NGOs), universities, private, and government entities will close the service gaps and improve the exchange of mental health expert resources by healthcare professionals.

2.2. Mental Health Programs for Children

It was reported in the National Health and Morbidity Survey (NHMS) 2019, one in 10 children had mental health issues [74]. In response to these demands, Malaysia has made significant strides in addressing children and adolescents mental health issues. The majority of national policy and legal frameworks are supportive of mental health, recognizing both the importance of a national multisectoral approach to mental healthcare, prevention, and promotion as well as the special needs and considerations of this age group.

Children's mental health services have been incorporated into a number of government health clinic programs. By providing integrated care services, recognizing mental health disorders, and addressing the mental health requirements of specific populations, the availability and accessibility of comprehensive and high-quality mental health treatments can be assured.

Although the current response is mainly concentrated on the clinical management of mental health conditions through the healthcare sector, there are also significant national approaches to improving and responding to mental health issues in schools, including programmes to support early identification, screening, and counselling.

The MOH and the Guidance and Counselling Unit, School Division, Ministry of Education, have launched the Healthy Mind Program in schools. This program is an intervention to help students affected by the COVID-19 pandemic or any other ongoing crisis, to recover from their negative emotions.

The program employs the slogan of "Healthy Mind: Awakened Emotion, Happy Life" to raise the school students' awareness on the importance of maintaining their own well-being and mental health on a daily basis. This program employs four primary strategies that includes prevention, development, rehabilitation, and crisis.

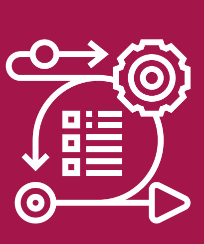
The objectives of the School's Healthy Mind Program are [75]:

1. Increase the awareness and knowledge of school residents about mental health promotion;
2. Encourage mental health screening to identify the level of stress, anxiety and depression among students and school residents;
3. Provide knowledge and skills to teachers to identify students with mental problems such as persistent emotional stress, depression and behavioural problems;
4. To provide skills to the students to learn how to deal with stress and manage emotional and behavioural issue;
5. To provide psychological skills and counseling among teachers to handle students experiencing emotional, behavioural and mental issues
6. Refer students with emotional, psychological, and mental issues to the appropriate person using the proper protocol.

Nevertheless, access to services is still not ubiquitous, and unmet needs are still common. To overcome these gaps, a clearer knowledge of how to successfully implement mental health and psychosocial support for children and adolescents is required especially among the families from the lower socio-economic groups.

METHODOLOGY

3. METHODOLOGY



3.1. Study Design

The study utilized a mixed-methods design, consisting of a cross-sectional quantitative study followed by a qualitative approach. The quantitative approach was used to answer research Objective 1 using self-administered screening forms distributed to the participants. The qualitative approach was used to answer research Objective 2 using in-depth interviews (IDI).

3.2. Study Setting

This study involves adolescents from 10 to 17 years of age living at the 37 PPRs in the Klang Valley during the COVID-19 pandemic. This target population was selected due to the living condition and disadvantageous socio-economic level of that group, which makes them more susceptible to psychological distress.

3.3. Duration of Data Collection

Data collection was initiated on 1 April 2022 and ended on 30 September 2022 (duration of 6 months).

3.4. Quantitative

3.4.1. Sample size calculation

The sample size was calculated using the formula for single proportion prevalence estimation. Based on the reported prevalence of 4.7% of poor mental health (average figure for the Klang Valley from the National Health and Morbidity Survey (NHMS) 2019 [74], and the precision of /2, the obtained sample size is 312 participants. The sample size was further inflated by a design factor of 1.5 to account for a complex study design and a non-response rate of 50% which resulted in a final sample size of 936 participants as the optimal required sample. In order to achieve the required sample size of the sample population, an estimated 2,200 housing units within the PPRs would need to be visited.

3.4.2. Sampling

The sampling frame of the list of the 37 PPRs (Figure 3-1), together with the total number of units in each PPR was obtained from Kuala Lumpur City Hall (DBKL or *Dewan Bandaraya Kuala Lumpur*) and Selangor Housing and Property Board (LPHS or *Lembaga Perumahan dan Hartanah Selangor*). The required number of units from each PPR, based on the sample size calculated, were determined based on sampling proportionate to the PPR size. Based on the number of units to be sampled within each PPR, the units were then selected using simple random sampling. In total, 2,005 units were selected across the 37 PPRs.

All selected units were visited and data collected from all eligible individuals between the age of 10 to 17 years old was included in the study. If the selected unit is empty or does not have any individual or refused to participate, that particular unit will not be replaced.

3.4.3. Inclusion and Exclusion Criteria

Inclusion Criteria

Aged 10 to 17 years old	Malaysian citizen	Living in the PPR during pandemic (from March 2020 until data collection)	Able to read, write and/ or speak in Malay or English language

Exclusion Criteria

Living with mental disability	Unable to give informed consent

1. PPR Seri Pantai
2. PPR Pantai Ria
3. PPR Kg. Limau
4. PPR Seri Cempaka
5. PPR Wangsa Sari
6. PPR Seri Anggerik
7. PPR Batu Muda
8. PPR Beringin
9. PPR Wahyu
10. PPR Pekan Batu
11. PPR Kerinchi
12. PPR Kg. Baru Air Panas
13. PPR Semarak
14. PPR Sungai Bonus
15. PPR Perkasa
16. PPR Laksamana
17. PPR Desa Tun Razak
18. PPR Kg. Muhibbah
19. PPR Pinggiran Bukit Jalil
20. PPR Raya Permai
21. PPR Seri Alam
22. PPR Sri Aman
23. PPR Taman Mulia
24. PPR Intan Baiduri
25. PPR Hiliran Ampang
26. PPR Pekan Kepong
27. PPR Gombak Setia
28. PPR Pudu Ulu
29. PPR Seri Malaysia
30. PPR Desa Petaling
31. PPR Salak Selatan
32. PPR Jelatek
33. PPR Lembah Subang 2
34. PPR Lembah Subang 1
35. PPR Kota Damansara
36. PPR Kg. Baru Hicom
37. PPR Serendah

Figure 3-1. Distribution of the PPRs in the Klang Valley

3.5. Qualitative

3.5.1. Sample size

Participants who obtained moderate, moderately severe and severe for PHQ-9 and/or moderate and severe for GAD-7 were selected for the IDI session. Taking into consideration 4.6% reported mental health status prevalence from the NHMS 2019, from a total of calculated 936 participants, an estimated of 43 participants should be selected for the IDI sessions. However, the actual sample size will depend on the outcome from the quantitative study and the saturation of the data achieved through the interviews.

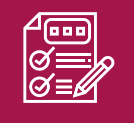
3.5.2. Sampling and Recruitment

Participants were recruited using the purposive sampling method as this study purposely selected adolescents with moderate, moderately severe and severe for PHQ-9 and/or moderate and severe for GAD-7 based on the screening. Both parents and the adolescents were explained about the IDI. Participants who agree to participate (with consent from parents) were recruited and an appointment for interview was set according to participants' convenience.

The participants who obtained moderate, moderately severe and severe score for PHQ-9 and/or moderate and severe score for GAD-7 from the quantitative screening stage were referred for psychological support at the nearest healthcare facility that has been identified. Further details of this work process are described under **sub-section 3.12**.

3.5.3. Inclusion and Exclusion Criteria

Inclusion Criteria



Scored moderate, moderately severe and severe in PHQ-9 and/or moderate and severe in GAD-7.

Exclusion Criteria

Refused to give informed consent.

3.6. Summary of Data Collection

Meeting was conducted with DBKL, KPKT and LPHS for briefing on the study and to obtain approval. Data on PPRs was obtained from DBKL and LPHS.

The Heads of Residents' Association were contacted by the Research Team (RT) for briefing on the study and to obtain approval to conduct the study in the locality. The PPR Heads then distributed the Research Information Sheet to the selected units.

Information regarding the study were explained to the parent/guardian and the children who were taking part in the study. Consent from the parent/guardian of legal age (**Appendix A**) and assent from the children were obtained prior to the study. (**Appendix B**)

Participants who were willing and have been consented to participate were given the self-administered screening form to answer. 15 minutes were allocated to answer the whole questionnaire.

The RT analysed the returned screening form, and participants who obtained moderate, moderately severe and severe for PHQ-9 and/or moderate and severe for GAD-7 were then selected for the IDI session.

Participants identified with psychological distress were provided with a referral letter to the nearest clinic/hospital and provided with an intervention material [**sub-section 3.12**]. Parent/guardian were also counselled.

The RT provided an explanation about the IDI to the parent/guardian and child. If they agree and consent, an appointment was set based on the participants' convenience.

The IDIs were conducted in a private room in the community hall. A psychologist or counsellor was present during each IDI. Each IDI session was audio recorded (if consented) and lasted for 45 minutes to one hour.

3.7. Research Instrument - Quantitative

This study used a questionnaire in dual language (Bahasa Melayu and English), as shown in **Appendix C**, which consisted of two sections:

Section	Content
Section A	Sociodemographic profile
Section B	• Patient Health Questionnaire-9 (PHQ-9) • Generalized Anxiety Disorder-7 (GAD-7).

Depression

The PHQ-9 is a self-report measurement consisting of nine questions to determine the presence or absence of depression. The validated PHQ-9 (Malay version) assesses depression in this study. Participants who obtained moderate, moderately severe, and severe are included in this study, as scores less than ten seldom occur in individuals with significant depression, while 10 to 14 in the grey zone and scores of 15 or greater usually signify significant depression [76].

Scoring of PHQ-9		
	0 - 4	None
	5 - 9	Mild
	10 - 14	Moderate
	15 - 19	Moderately severe
	20 - 27	Severe

Anxiety

The original English version of the GAD-7 questionnaire was developed in primary care by Spitzer, Kroenke, Williams, and Lowe. It is a self-reported questionnaire with good reliability and sensitivity for diagnosing It consists of seven items to measure symptoms of generalised anxiety disorder, panic disorder, social anxiety, and post-traumatic stress disorder (PTSD). Participants who obtained moderate and severe anxiety are included in the study as a score of 10 or greater on the GAD-7 represents a reasonable cut point for identifying cases of generalized anxiety disorder [77].

Scoring of GAD-7		
	0 - 4	Minimal anxiety
	5 - 9	Mild anxiety
	10 - 14	Moderate anxiety
	15 - 21	Severe anxiety

3.8. Research Instrument - Qualitative

The initial stage of developing the topic guide and the scope of questions was based on the research objectives and with previous studies and relevant literature review [78,79]. Subsequently, the Transactional Theory of Stress and Coping Model was also used to further refine the scope of questions.

According to Lazarus and Folkman, the focus of this Model is how stress is perceived and ways of coping with it [35]. Here, the framework is shown to illustrate the process (Figure 3-2). Based on the framework table, primary appraisal is where the assessment of the situations take place. The situations can be judged as positive, irrelevant, or potentially dangerous. In this case, stressful situations are often appraised as situations that pose immediate harm or loss, a threat of future harm or loss or some possible challenges that could produce opportunities for mastery challenge or gain.

Secondary appraisals relate to the judgement on the availability of resources to deal with the situation and change the undesirable conditions. Two aspects of resources will be considered in coping with the stress; social and psychological resources. Seeking support from the social circle is one of the processes to deal with stress. The support could be from professional or non-professional. Another option of resources that could be considered to create a more positive environment is psychological resource which involved resilience or will power.

After the two appraisals, individuals may employ other coping strategies to respond, such as problem-focused coping strategy and emotion-focused coping strategy. The problem-focused coping strategy is used when individuals feel they have control of the situation, thus can manage the source of the problem by either seeking information, acting or by not acting at all. Learning new skills to manage stressors and reappraise the situation cognitively is one of the examples of problem-focused coping strategies. Emotion-focused coping strategy on the other hand is a strategy that attempts to reduce negative emotion responses. The strategies include wishful thinking, self-blame, avoidance, and self-isolation.

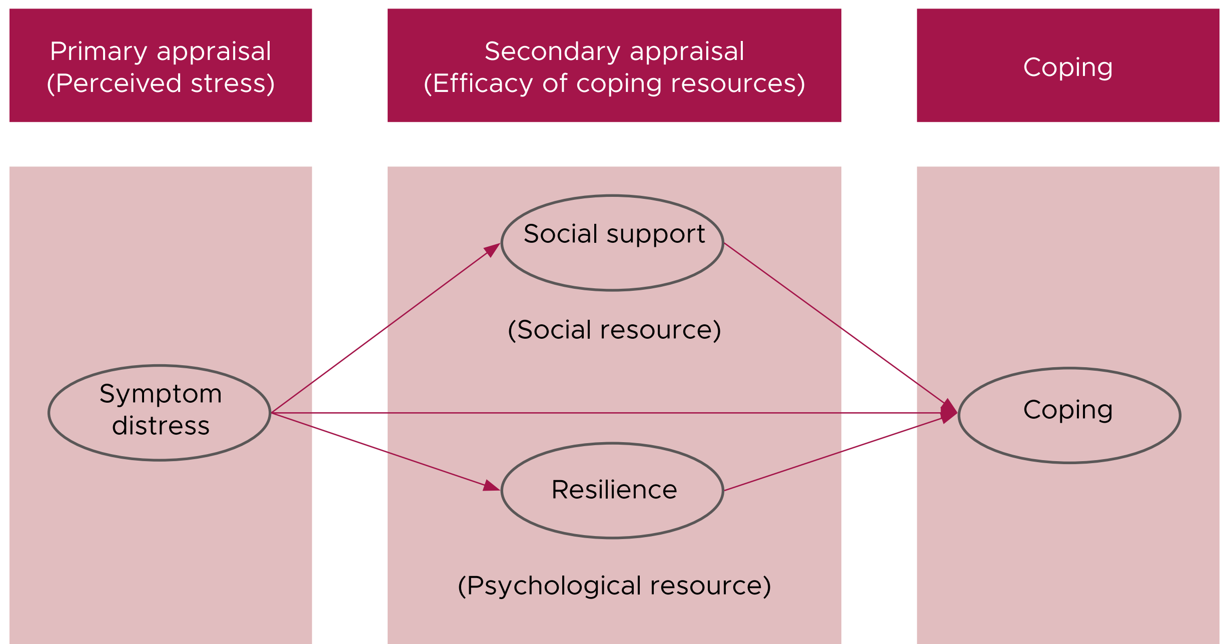


Figure 3-2. The Transactional Theory of Stress & Coping Model

A semi-structured interview guide was developed and used as a guide to conduct the IDI for this study (**Appendix D**). This interview guide was reviewed by experts from the NCEMH, MOH and a clinical psychologist from UKM.

3.9. Data Analysis - Quantitative

Descriptive analysis was used to describe the socio-demographic of the participants and the prevalence of mental health status is reported in frequency and percentage. Inferential analysis was used to find the association between socio-demographic factors and psychological distress of the participants.

3.10. Data Analysis - Qualitative

Interview transcripts were transcribed (verbatim) after each IDI session is completed. The transcription process was done immediately to enable the researchers to identify that no information is left out and ensure new information can be used as a guide for the next IDI session. Data from the voice recorder are stored on a password-protected computer for research purposes only. The participants' identity are kept confidential, and their names are replaced with specific codes to ensure confidentiality.

All transcripts were entered into NVivo version 12 and coded independently by the researchers. Transcripts were coded and analyzed inductively using a thematic approach to identify recurring themes. Any discrepancies were resolved by discussions among the researchers to form a coding framework. The research team also consolidated all coding in a codebook that guided the coding process.

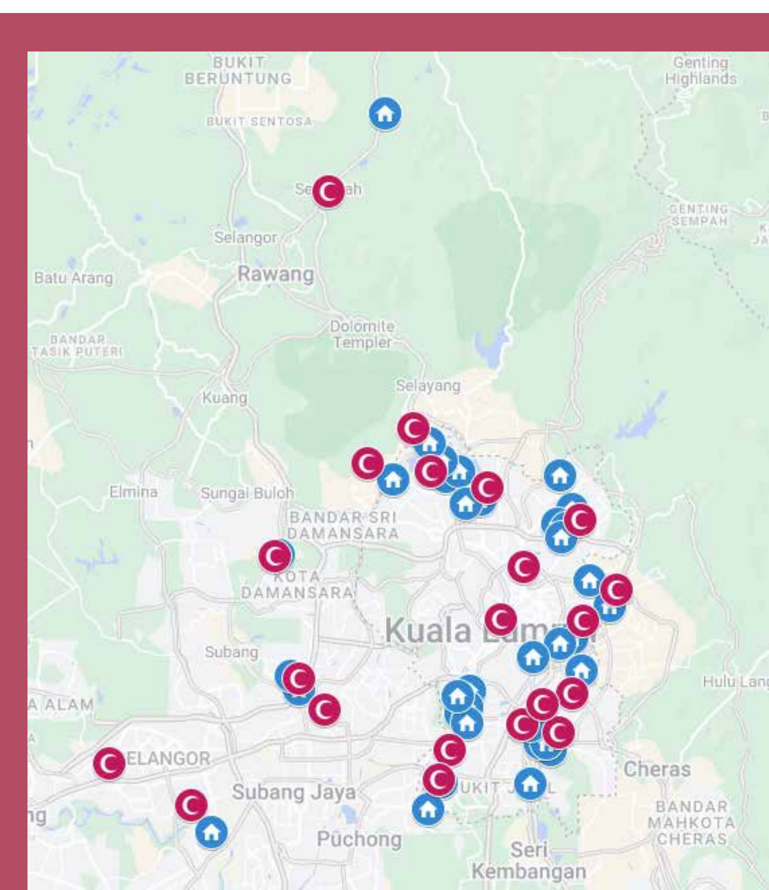
3.11. Ethics Approval and Research Grant

This research has been registered under the National Medical Research Register [reference: NMRR-21-1521-60861(IIR)]. UNICEF funded this study after approval from the Medical Research Ethics Committee (MREC) on 24 November 2021 [Ref:(17) KKM/NIHSEC/ P21-1528] as shown in **Appendix E**. The Ethics Procedure under MREC is aligned with the UNICEF Procedure for Ethical Standards in Research, Evaluation and Data Collection and Analysis.

3.12. Intervention for Participants with Psychological Distress and with Self-harm or Suicidal Thoughts

This is an important component of the study protocol since the researchers have a moral and ethical obligation to counsel and refer adolescents found to have psychological distress and/or self-harm or suicidal thoughts from the screening.

Nearby MOH health clinics and hospitals located near to the 37 PPRs were listed. One UKM clinic was also involved. In total, 19 healthcare facilities were identified as referral centres (Figure 3-3).



1. KK Petaling Bahagia
2. KK Tanglin
3. KK Setapak
4. KK Batu Muda
5. KK Jinjang
6. KK Kg. Pandan
7. KK Bandar Tun Razak
8. KK Muhibbah
9. KK Salak Selatan
10. KK Cheras
11. KK Kuala Lumpur
12. KK Kelana Jaya
13. KK Kota Damansara
14. KK Seksyen 19
15. KK Serendah
16. Hospital Selayang
17. Hospital Shah Alam
18. Hospital Kuala Lumpur
19. Klinik UKM Bandar Sri Permaisuri

Figure 3-3. Location of healthcare facilities identified as referral centres

The researchers then conducted briefings to the Kuala Lumpur and Selangor State Health Departments, the related District Health Offices, FMS's and hospital psychiatrists from the healthcare facilities involved. The briefings consisted of an overview of the study protocol and the work process for the referrals.

In addition, during each IDI, either a counsellor or a psychologist was present with the main interviewer. A template letter was developed and used for referrals (**Appendix F**). However, before the adolescent was referred, the researchers also provided an intervention material to be used prior to attending the healthcare facility. This consisted of a booklet that was developed together with the NCEMH, MOH (**Appendix G**).

Lastly, the research team also conducted follow-up telephone calls. These consisted of participants who answered YES to item 9 of PHQ-9; and of participants who were provided with referral letters to check whether they had attended their referrals to the nearby healthcare facility. The research team also contacted all the healthcare facilities identified to verify if the participants who were referred had attended.

RESULTS: QUANTITATIVE SURVEY

4. RESULTS: QUANTITATIVE SURVEY

4.1. Response Rates

A total of 2,005 units selected over the 37 PPRs were successfully visited, and 931 units (46.4%) consented to participate. From these 931 units, 1,578 eligible participants completed the questionnaire.

4.2. Respondents' Sociodemographic Characteristics

Figure 4-1 shows that the respondents who participated in this study were aged between 10 to 17 years old. The highest number of respondents were aged 13 years (16.0%), and the lowest aged 11 years (10.9%), with a mean age of 13.52 years. By gender, the distribution is almost equal with females 50.5% and males 49.5% (Figure 4-2), and by ethnicity, the highest is Malay ethnicity (85.3%), followed by Indian ethnicity (13.4%), Chinese ethnicity (1.0%) and others (0.3%) (Figure 4-3).

Figure 4-1. Distribution by age

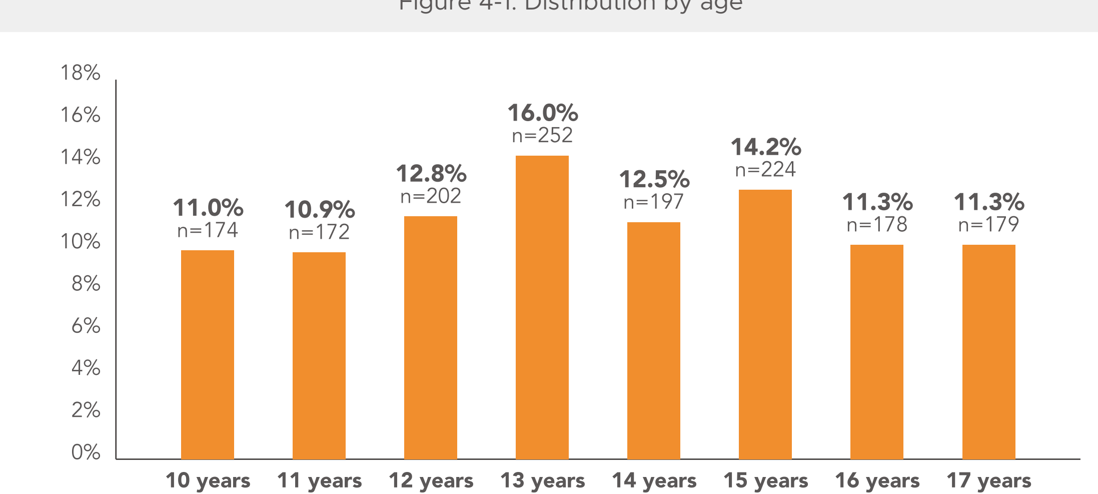
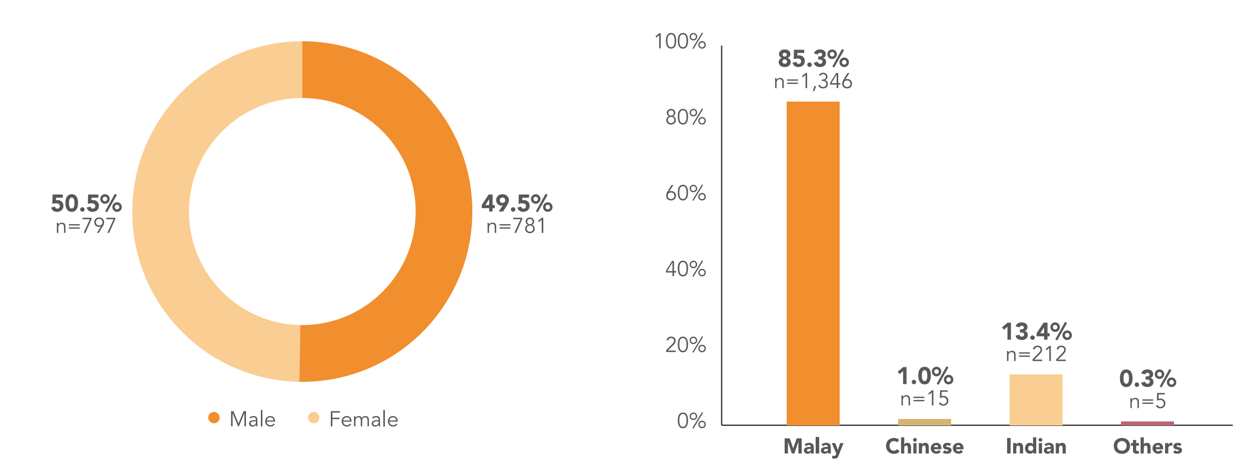


Figure 4-2. Distribution by gender

Figure 4-3. Distribution by ethnicity



For their past medical history, the respondents were asked about the presence of non-communicable diseases (or NCDs i.e., diabetes, hypertension, heart disease, kidney disease and cancer). We found that only 17 respondents (1.1%) reported a history of NCDs (Figure 4-4). Meanwhile, for their past history of COVID-19 infection, we found that 422 respondents (26.7%) have been infected with COVID-19 (Figure 4-5).

Figure 4-4. History of NCDs

Figure 4-5. History of COVID-19 infection

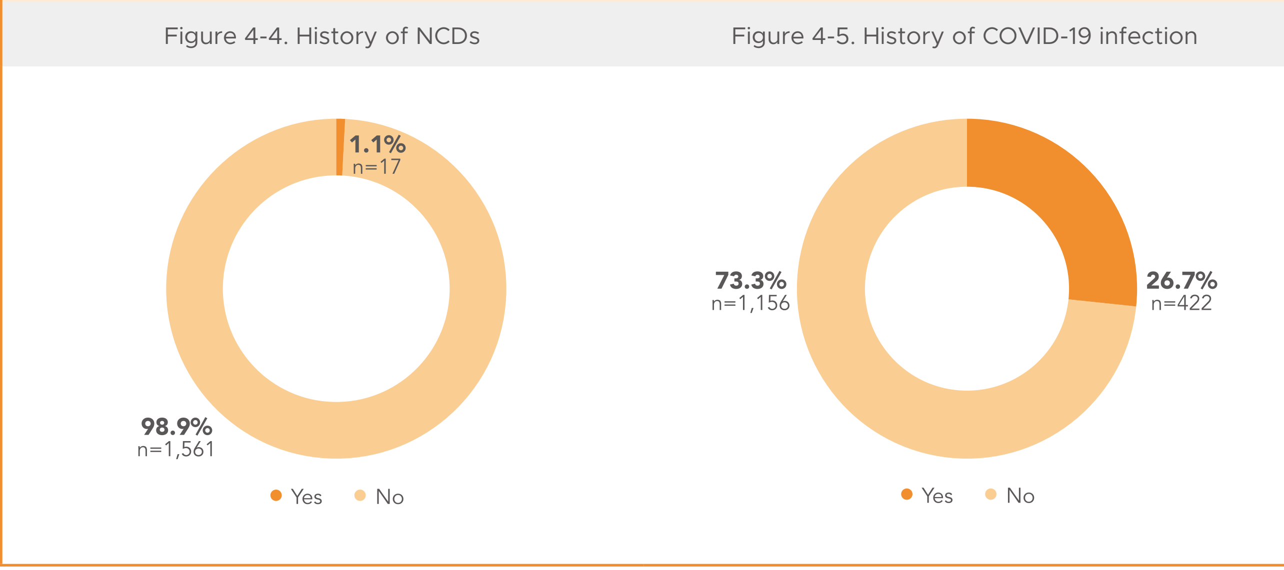
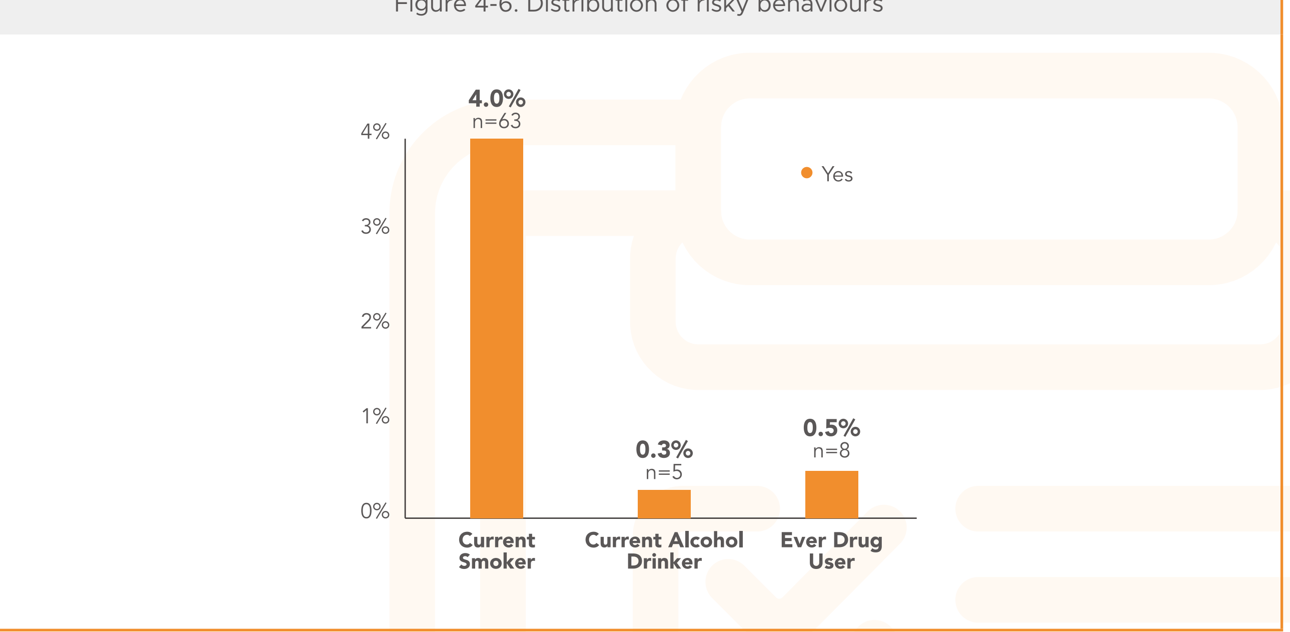


Figure 4-6 below shows the distribution of risky behaviours among the respondents. We found that very few respondents are involved in risky behaviours, with only 4.0% (n=63) are current smokers, 0.3% (n=5) current alcohol drinker and 0.5% (n=8) ever used drugs.

Figure 4-6. Distribution of risky behaviours



We found that 70.0% (n=1,105) of the respondents had lived in PPR for more than 10 years, meanwhile 30.0% (n=473) had lived in PPR for less than 10 years (Figure 4-7). The mean duration is 10.69 years.

Figure 4-7. Duration living in the PPRs

70.0%
n=1,105

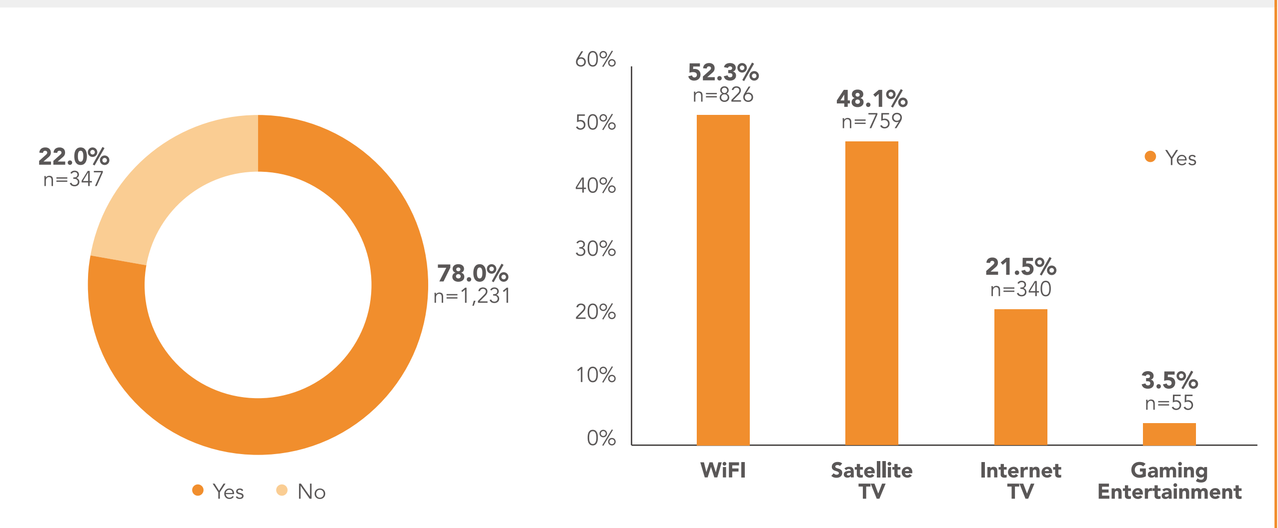
30.0%
n=473

Less than 10 years   More than 10 years

In addition, we found that 78.0% of the respondents (n=1,231) own at least one electronic device (i.e., handphone, tablet and/or laptop), while 22.0% (n=347) did not own any electronic devices (Figure 4-8). We also found that about half of the household in the PPRs have Wi-Fi connectivity at their homes (52.3%) and satellite TV (48.1%), while 21.5 % have internet TV, and only 3.5% have gaming entertainment (Figure 4-9).

Figure 4-8. Owning at least 1 electronic device

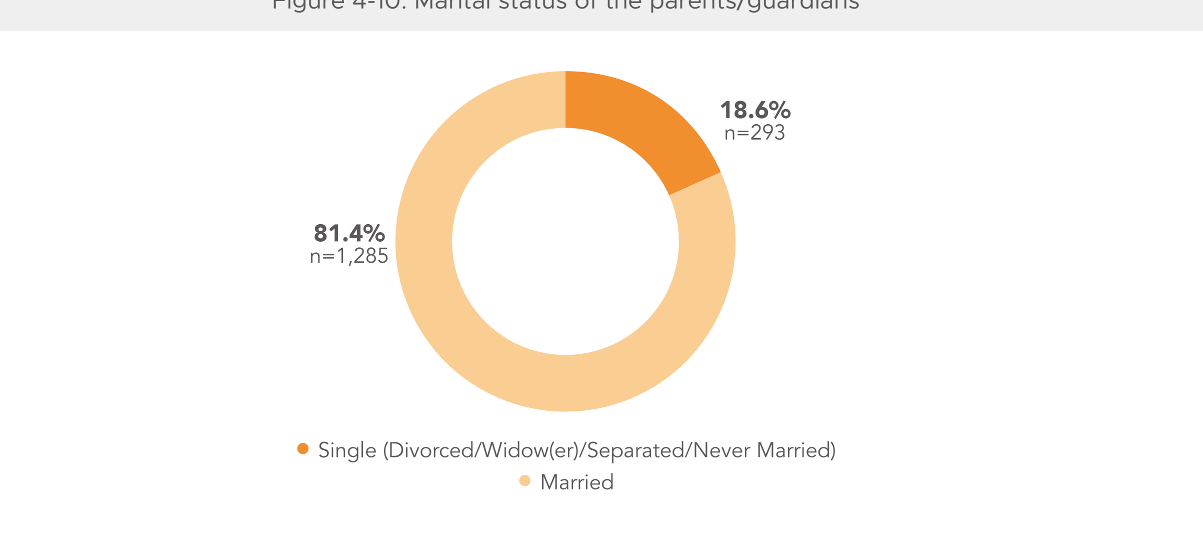
Figure 4-9. Entertainment devices at home



4.3. Family Sociodemographic Characteristics

With regards to the marital status of parents/guardians of the respondents, we found that the majority of the parents/guardians are married or living with a partner (81.4%, n=1,285) and only 18.6% (n=293) are single parents/guardians (Figure 4-10).

Figure 4-10. Marital status of the parents/guardians



We found that the majority of the fathers had secondary education 77.5% (n=1,000) and 10.4% (n=134) had tertiary education. Similarly, the majority 78.9% (n=1,163) of the mothers had secondary education and 10.7% (n=157) had tertiary education. More than half of the guardians 57.2% (n=40) had secondary education, while 41.4% (n=29) had primary education and only 1.4% (n=1) had tertiary education (Figure 4-11).

Figure 4-11. Level of education of the parents/guardians

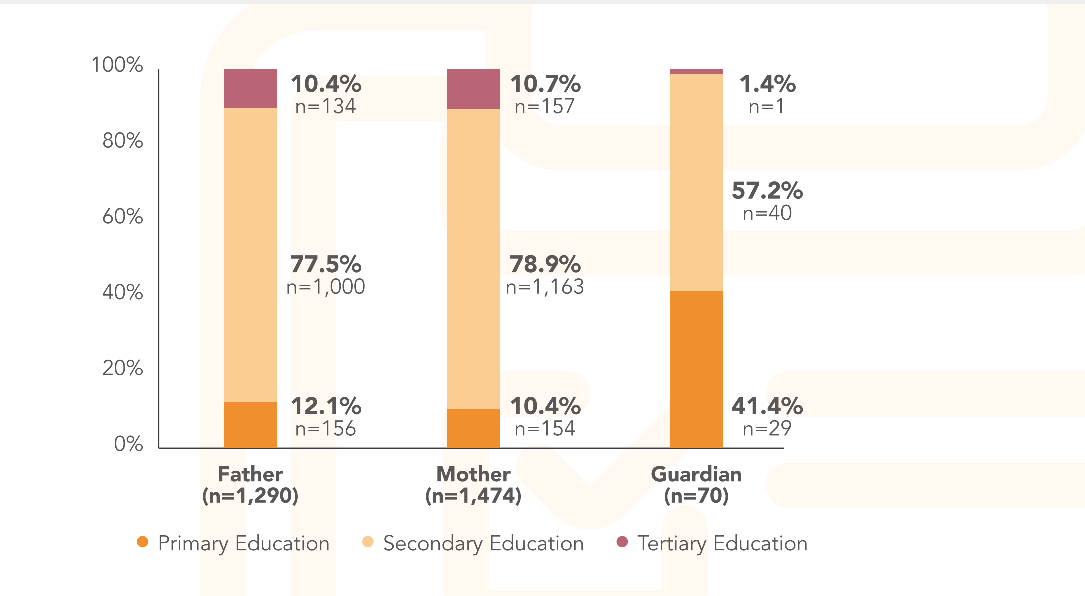
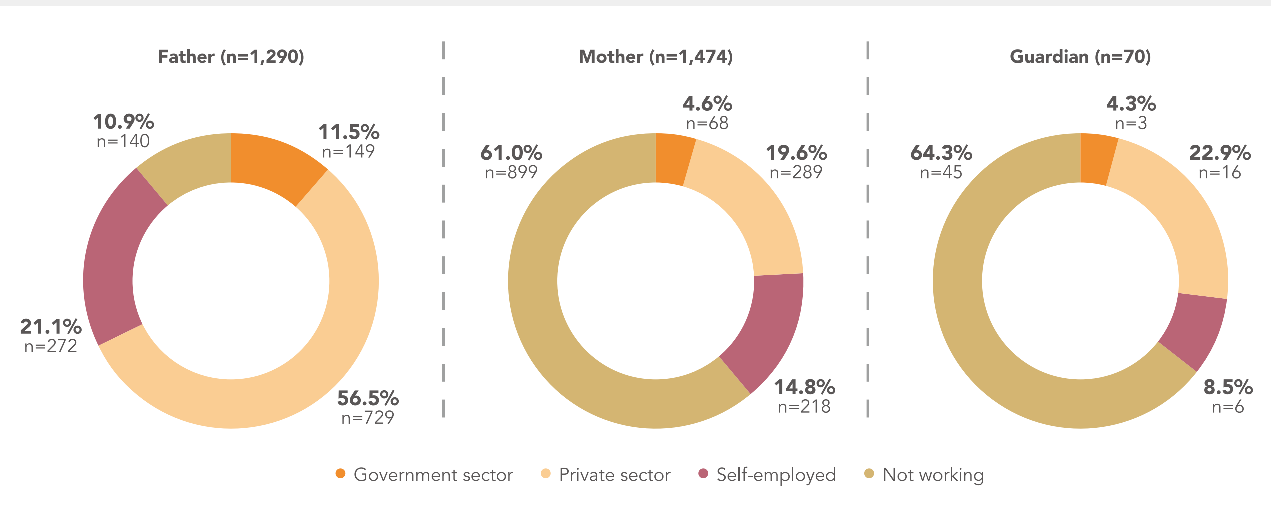


Figure 4-12 shows the occupation of the parents/guardians of the respondents; among the fathers, 11.5% (n=149) worked in the government sector, 56.5% (n=729) worked in the private sector, 21.1% (n=272) were self-employed and 10.9% (n=140) were not working. For the mothers, 4.6% (n=68) worked in the government sector, 19.6% (n=289) worked in the private sector, 14.8% (n=218) were self-employed and 61.0% (n=899) were not working. For the guardians, 4.3% (n=3) worked in the government sector, 22.9% (n=16) worked in the private sector, 8.5% (n=6) were self-employed and 64.3% (n=45) were not working.

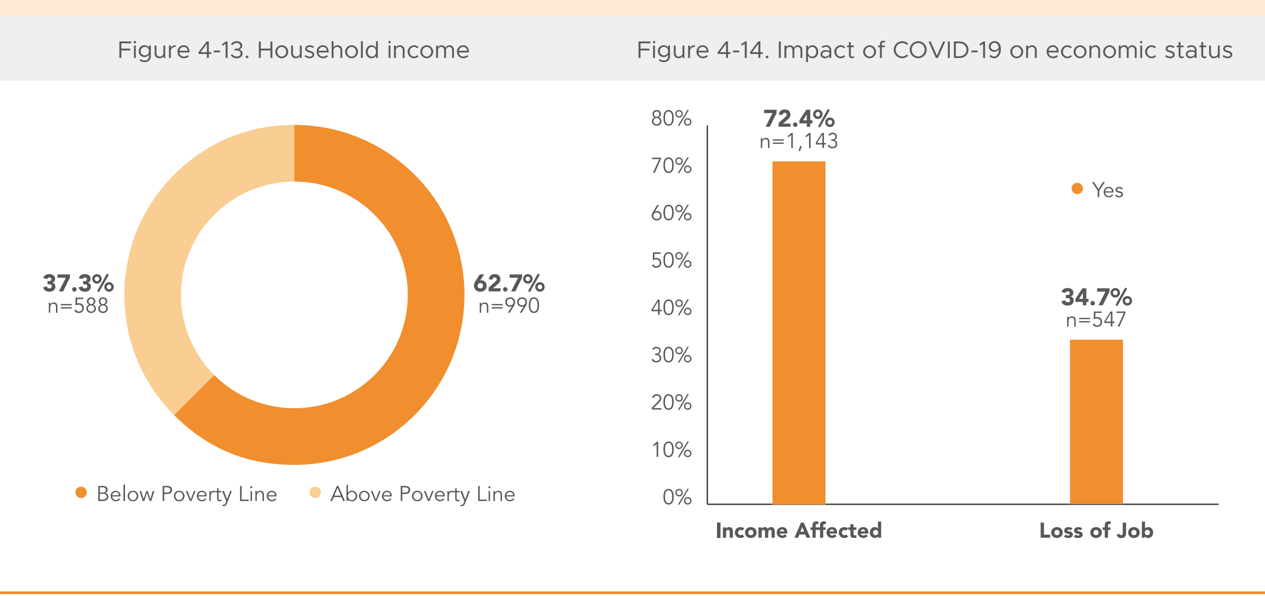
Figure 4-12. Occupational status of the parents/guardians



For the household income status, we found that 62.7% (n=990) had a household income below the poverty line (Figure 4-13). The mean for household income is RM2,202.30. We also found that the COVID-19 pandemic had negatively impacted their household income, whereby 72.4% (n=1,143) of the family had their income affected and about one-third (34.7%: n=547) reported their family members had lost their jobs because of COVID-19 (Figure 4-14).

Figure 4-13. Household income

Figure 4-14. Impact of COVID-19 on economic status



In addition, we found that 84.0% of the families have household crowding issues, which means having more than four people living together in one unit (Figure 4-15). The mean number of household members is 6.19. The vast majority of households have between 5 to 10 members (Figure 4-16).

Figure 4-15. Household crowding

Figure 4-16. Number of occupants

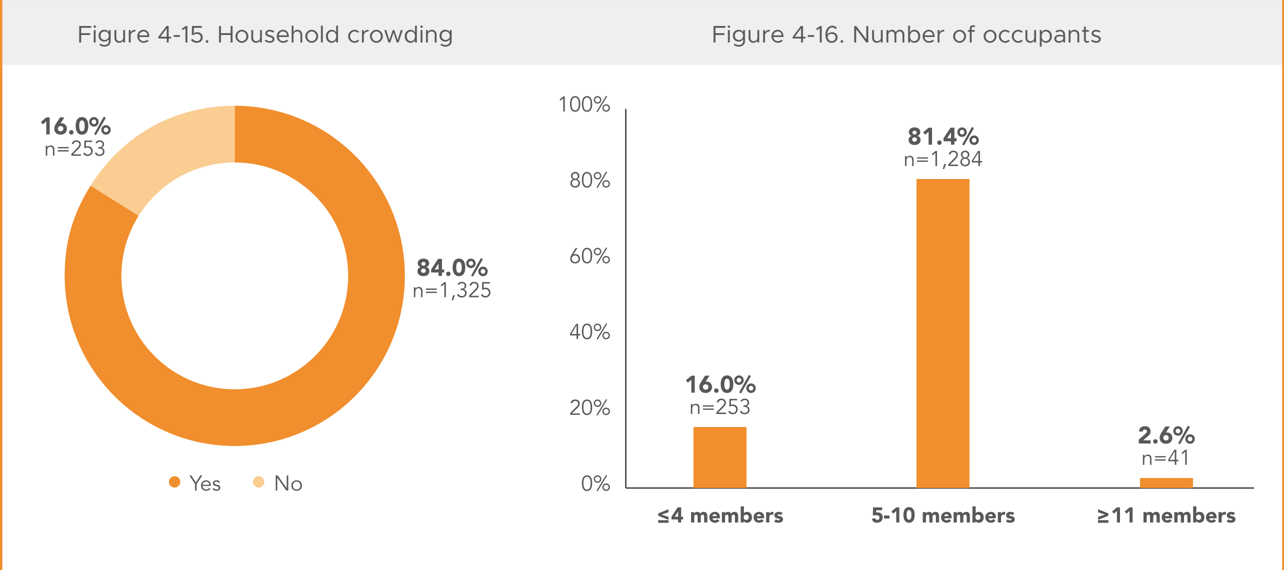
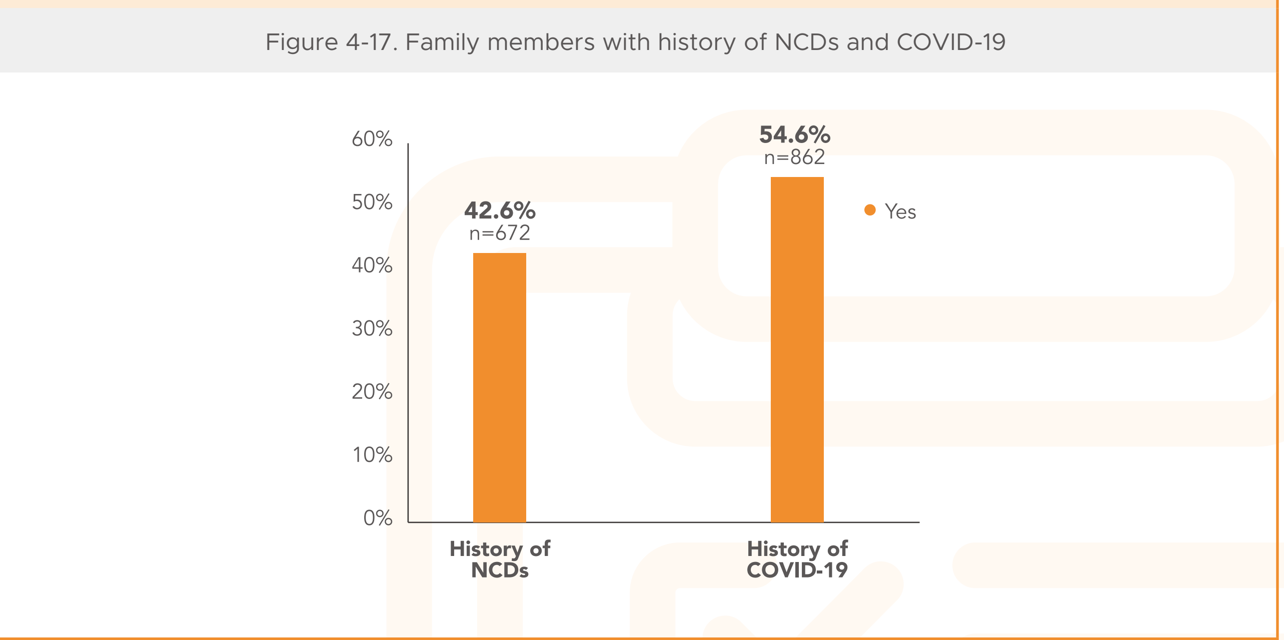


Figure 4-17 shows a positive history of non-communicable diseases (NCDs) and COVID-19 infection among the respondents' family members. We found that 42.6% had family members with NCDs, and more than half (54.6%) had family members with a history of COVID-19 infection.

Figure 4-17. Family members with history of NCDs and COVID-19

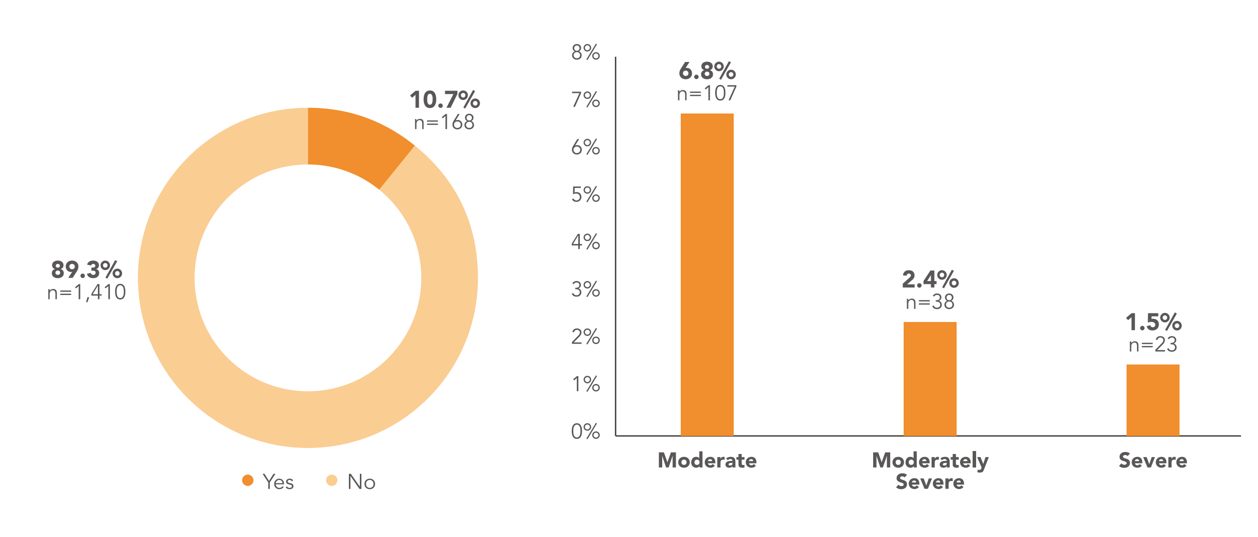


4.4. Mental Health Status of Adolescent Respondents

We found 10.7% (n=168) of respondents have depression symptoms (Figure 4-18). In terms of their depression levels, 6.8% (n=107) showed moderate depression, 2.4% (n=38) showed moderately severe depression, and only 1.5% (n=23) of the respondents showed severe depression (Figure 4-19).

Figure 4-18. Respondents with depression symptoms

Figure 4-19. Depression levels for moderate to severe



Specific for item 9 of PHQ-9, a total of 8.6% (n=136) had several days of thoughts, 3.0% (n=47) had more than half of the days of thoughts and 1.8% (n=29) had nearly every day of thoughts of better off dead and hurting self in some ways (Figure 4-20). Therefore, in total, 212 participants (13.4%) reported suicidal and self-harm thoughts.

Figure 4-20. PHQ-9, item 9 responses

Thoughts that you would be better off dead or hurting yourself in some way

10%
8%
6%
4%
2%
0%

8.6% n=136 — Several Days

3.0% n=47 — More Than Half of the Days

1.8% n=29 — Nearly Everyday

We also found that 7.2% (n=114) of the respondents showed anxiety symptoms (Figure 4-21). In terms of their anxiety levels, 4.7% (n=75) showed moderate anxiety, and 2.5% (n=39) showed severe anxiety (Figure 4-22).

Figure 4-21. Respondents with anxiety symptoms

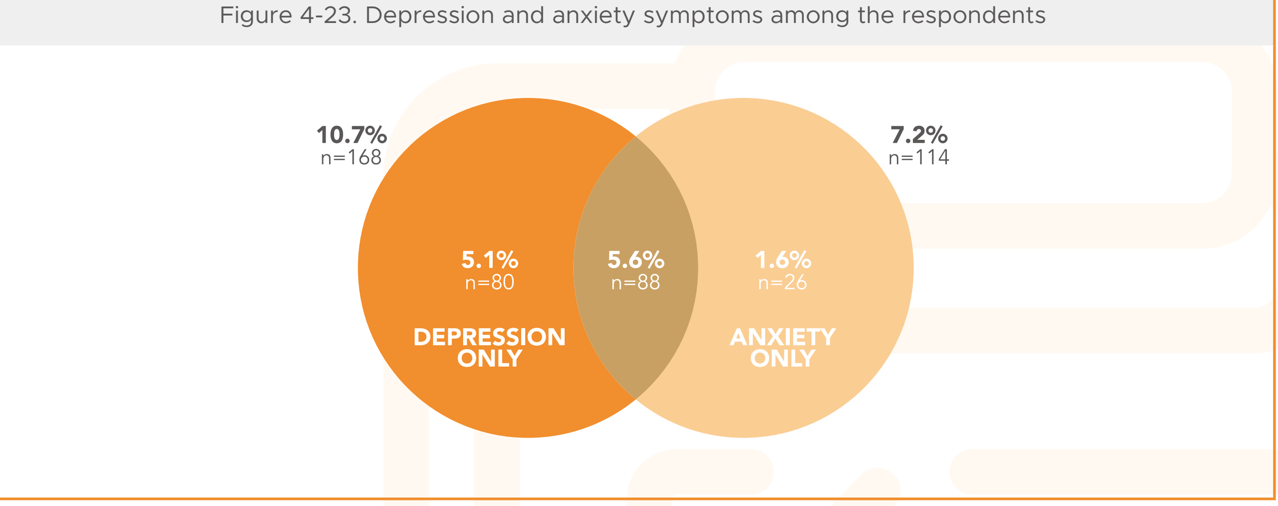
7.2%
n=114
92.8%
n=1,464
Yes No

Figure 4-22. Anxiety levels for moderate to severe

10%
8%
6%
4%
2%
0%
4.7%
n=75
2.5%
n=39
Moderate Severe

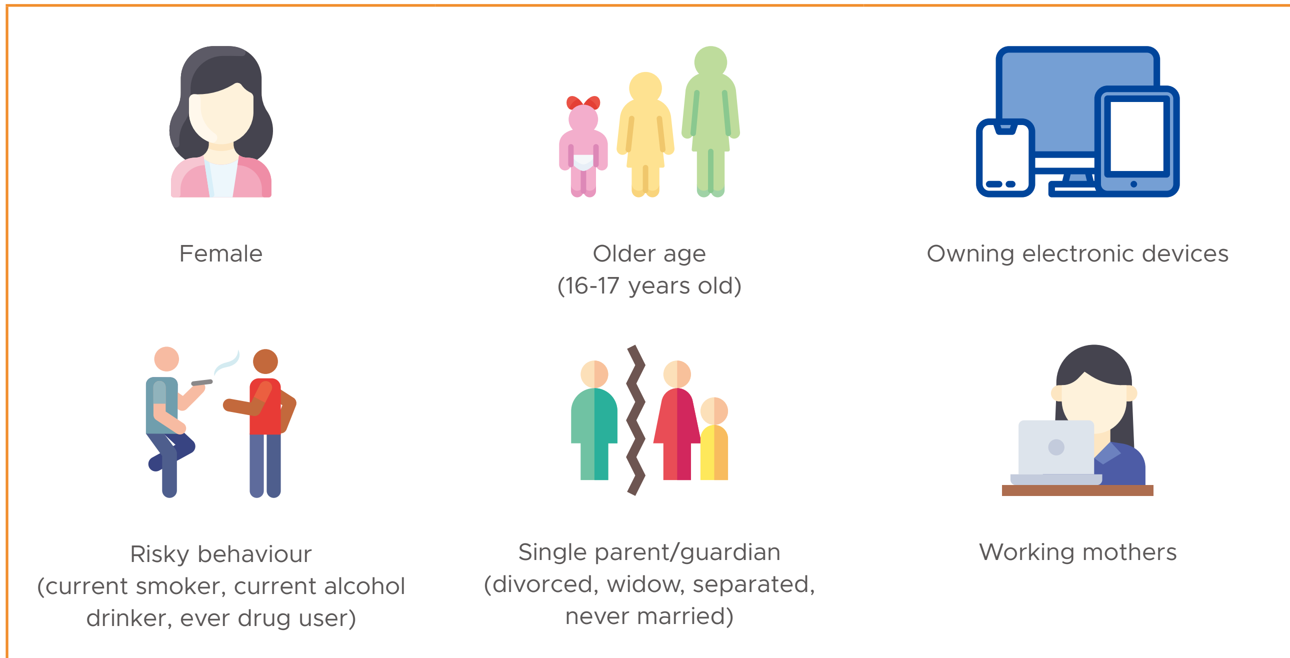
Figure 4-23 shows the distribution of both depression and anxiety symptoms among the respondents. Out of 10.7% of respondents who have depression, 5.1% (n=80) have depression symptoms only, whereas 5.6% (n=88) has both depression and anxiety symptoms. In addition, out of the 7.2% of the respondents who have anxiety, a total of 1.6% (n=26) have anxiety symptoms only. The total number of respondents with psychological distress is 12.3% (n=194).

Figure 4-23. Depression and anxiety symptoms among the respondents

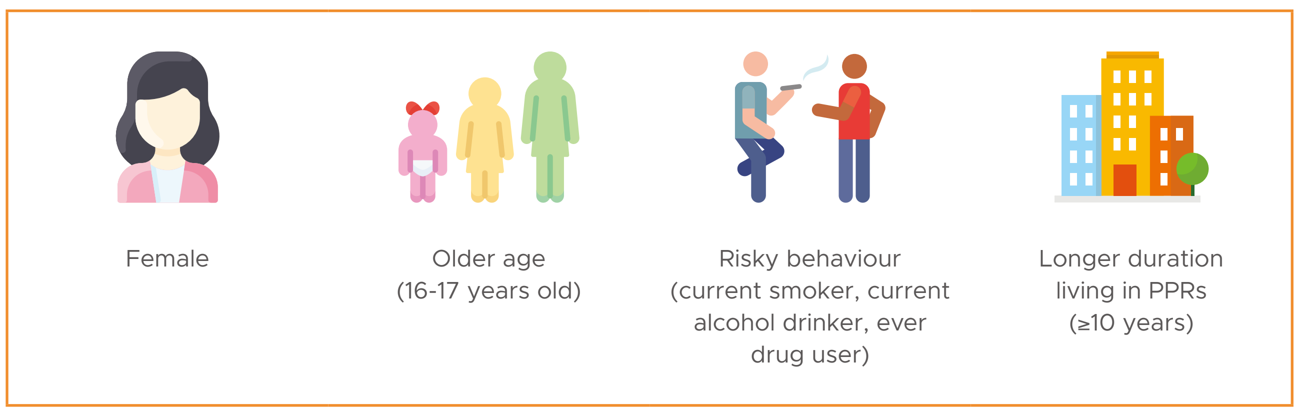


4.5. Sociodemographic Factors Associated with Depression and Anxiety among Adolescent Respondents

Based on the statistical analysis of the quantitative data, our study found the following sociodemographic factors are associated with **depression**:



The following sociodemographic factors are associated with **anxiety**:



The statistical analysis tables for the sociodemographic factors associated with Depression and Anxiety are shown in **Appendix H**.

RESULTS: QUALITATIVE

5. RESULTS: QUALITATIVE

5.1. Sociodemographic Characteristics

Of the 194 participants identified with psychological distress through the questionnaire, a total of 47 participants consented for the IDIs. Table 5-1 below shows the sociodemographic and mental health status of the IDI participants. In summary, there were more female respondents (n=33) compared to males (n=14), more in the older age groups, and predominantly Malay ethnicity (n=45), with 2 Indian ethnicity and no Chinese respondents.

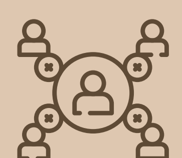
Table 5-1. Sociodemographic and mental health status of IDI participants

ID	Age (years)	Gender	Education	Psychological Distress	
				Depression	Anxiety
R1	14	Male	Secondary	Moderate	Moderate
R2	17	Female	Secondary	Moderate	Moderate
R3	16	Female	Secondary	Moderate	Mild
R4	14	Female	Secondary	Moderately severe	Severe
R5	17	Male	Secondary	Moderate	Normal
R6	11	Female	Primary	Moderately Severe	Moderate
R7	10	Female	Primary	Moderate	Moderate
R8	16	Female	Secondary	Moderate	Normal
R9	17	Female	Secondary	Moderate	Moderate
R10	12	Female	Primary	Moderate	Normal
R11	15	Male	Secondary	Moderate	Normal
R12	15	Female	Secondary	Moderate	Normal
R13	13	Female	Secondary	Moderately severe	Severe
R14	16	Male	Secondary	Moderate	Mild
R15	13	Female	Secondary	Mild	Moderate
R16	16	Male	Secondary	Moderate	Mild
R17	13	Female	Secondary	Mild	Moderate
R18	17	Female	Secondary	Severe	Severe
R19	16	Female	Secondary	Moderate	Moderate

ID	Age (years)	Gender	Education	Psychological Distress	
				Depression	Anxiety
R20	16	Male	Secondary	Moderate	Moderate
R21	15	Female	Secondary	Moderately severe	Moderate
R22	14	Female	Secondary	Moderate	Mild
R23	17	Male	Secondary	Moderate	Mild
R24	16	Female	Secondary	Mild	Moderate
R25	17	Female	Secondary	Mild	Moderate
R26	11	Female	Primary	Mild	Moderate
R27	11	Male	Primary	Moderate	Moderate
R28	14	Female	Secondary	Moderate	Moderate
R29	13	Female	Secondary	Moderate	Moderate
R30	15	Female	Secondary	Moderately severe	Moderate
R31	16	Male	Secondary	Moderate	Mild
R32	13	Female	Secondary	Moderate	Mild
R33	12	Female	Primary	Moderate	Mild
R34	17	Female	Secondary	Severe	Moderate
R35	14	Female	Secondary	Mild	Moderate
R36	15	Male	Secondary	Moderate	Mild
R37	13	Female	Secondary	Moderate	Mild
R38	13	Male	Secondary	Moderate	Mild
R39	17	Female	Secondary	Moderately severe	Severe
R40	13	Male	Secondary	Moderate	Mild
R41	14	Female	Secondary	Moderately severe	Mild
R42	17	Male	Secondary	Moderate	Mild
R43	13	Female	Secondary	Moderate	Mild
R44	17	Female	Secondary	Moderate	Severe
R45	14	Female	Secondary	Moderate	Mild
R46	16	Male	Secondary	Moderate	Mild
R47	14	Female	Secondary	Moderately severe	Mild

5.2. Factors for Psychological Distress during the COVID-19 Pandemic

Six main themes for factors of psychological distress were identified:

					
Challenges of online learning	Financial difficulties	Relationship issues	Impact of social isolation	Pandemic-related stressors	Living environment

1. Challenges of Online Learning

The sudden changes from conventional (face to face/classroom) to online teaching method caused unprecedented difficulties for adolescents living in PPRs.

Participants expressed lack of knowledge in converting from face to face to online learning method, and difficulties in adjusting and using the online platform from home.

They also expressed severe disturbance and interruption on the online learning platform due to lack of internet facility at home, lack of internet data and internet devices. Devices that are inappropriate and not user-friendly also made online learning difficult.

Other difficulties on online learning included inability to communicate and interact with teachers. The physical absence of teacher(s) negatively affected students' concentration. This was compounded by the inability to interact with one another in a physical classroom (i.e., group-based learning).

Participants expressed that helping parents' doing household work and looking after younger siblings also interfered their online learning. Additionally, household work makes them exhausted to focus on educational activities.

Additionally, they expressed higher burden due to increase in assignments (for home-based learning), which can accumulate if unable to join the classes regularly.

Because of all the above difficulties and challenges, the participants expressed loss in desire and motivation in learning.

As a result, these adolescents expressed worry, loss of hope and anticipate a bad future. They worry, thinking of a future closely related to sudden changes in life due to COVID-19 and the MCOs – will school ever open?; when can they take the important exams?

1.1. Difficulties Understanding and Adapting to Home-Based Learning and Teaching (PdPR)

I especially a science stream student and the questions, the subjects are very hard, and I have to study it online. I will get distract easily and just imagine, how am I going to study in Google Meet, and I get distract easily. It is very hard for me

(R9, female, 17 years old)

Macam dekat sekolah kalau kita tak faham at least boleh berdepan dengan cikgu, cikgu boleh explain apa yang tak faham. Kalau dekat rumah kalau nak tanya tu rasa macam tak selesa je... Kurang faham la... Lebih better face to face.

At school if we don't understand, at least we can ask the teacher directly, the teacher can explain what we don't understand. If we're at home and we want to ask something, it feels uncomfortable... We may not understand it well... It's better face to face.

(R34, female, 17 years old)

1.2. Lack of Internet Connectivity and Device

Kadang-kadang line (tiada) and ada pernah sebab device, adik punya phone rosak, so, kena share, jadual berlanggar, so, kadang-kadang saya skip jelah, sebab nak bagi adik masuk kelas.

Sometimes there's no internet and there's no device, my sister's phone is broken, so, I have to share, the schedule conflicts, so, sometimes I skip it, because I want to let my sister attend class.

(R19, female, 16 years old)

Berkongsi dengan mak macam susah sikitlah sebab mak nak pakaikan (handphone). Jadi, kadang-kadang jelah boleh masuk PdPR.

Sharing with mom is a bit difficult because mom wants to use (handphone). So, only occasionally can join PdPR.

(R1, male, 14 years old)

1.3. Lack of Student-Teacher Interaction

Susah...kalau fizikal kan, cikgu pandang depan mata kita, kalau online kan cikgu tak tahu, kita buat apa kat dalam fon tu, tidur ke... just masuk tapi tak dengar apa-apa.

It's hard... if in a classroom, the teacher is in front of your eyes, if you're online, the teacher doesn't know, what are we doing online, can sleep... just log in but don't listen to anything.

(R3, female, 16 years old)

1.4. Family Commitment

Saya anak perempuan pertama, lepastu, mak pula bekerja and...semua saya kat rumah, saya yang uruskan adik-adik, saya masak, so, kadang-kadang jadi penat. Lepas tu nak belajar lagi..

I'm the eldest daughter, in addition, my mother works and... I'm at home, I take care of my younger siblings, I cook, so, sometimes I get tired. And then have to attend class some more.

(R19, female, 16 years old)

1.5. Poor Focus

Tak boleh nak fokus... Belajar dekat dalam phone tu susah.
Can't focus... Studying on the phone is hard.
(R12, female, 15 years old)

1.6. Too Many Assignments

Dia terlalu banyakla (kerja sekolah)... cikgu bila PdPR dia kerja dia (kerja sekolah) dua kali ganda lagi banyak daripada biasa...
There's too much (school work)... during PdPR, the teacher gives out school work twice as much than usual...
(R8, female, 16 years old)

Mula daripada PdPR la... Sebab banyak tak masuk PdPR kan, lepastu kerja sekolah banyak, macam tu lah.
Starting from the PdPR... Because many times did not join PdPR, then there's a lot of school work, that's how it is.
(R1, male, 14 years old)

1.7. No Interest and Motivation to Study during PdPR

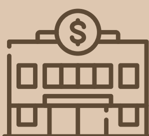
Daripada segi pelajaran... Macam kerja sekolah, selalu tertunggak macam itu... Tak tahu la... Bila nak buat itu rasa malas.
In terms of studies... school work, it's always overdue... I don't know... When I want to do it, I feel lazy.
(R14, male, 16 years old)

Masa pandemik saya rasa lagi malas nak belajar... Saya suka belajar dengan kawan-kawan dalam kumpulan. Kalau belajar sorang-sorang rasa macam bosan.
During the pandemic, I feel lazy to study... I like to study with friends in a group. If you study alone, it feels boring.
(R23, female, 17 years old)

1.8. Uncertainty of the Future

Saya selalu fikir masa depan... time tengah malam macam tu ah... tengah malam time-time nak tidur mesti.
I always think about the future... especially late at night... at night when it is time to sleep.
(R14, male, 16 years old)

Macam... benda biar betul benda ni kan? Macam, entah lah. Kita orang macam, Ya Allah, tolonglah kita tak sekolah ni. Macam mana nak belajar, kita orang nak periksa lagi. Kita orang dah PT3 apa semua. Sekolah menengah, mesti susah. PT3 lah, SPM apa semua kan? Macam, benda tu kan bawak pergi kerja... Uish, (macam) mana aku nak fikir ni?
Like... is this for real? Like, I don't know. We are like, Oh God, help us since we can't go to school. How to learn, we have exams also. We all have PT3. Secondary school must be hard. There's PT3, there's also SPM right? Like, you need these (qualifications) to work... Uish, how am I supposed to think?
(R45, female, 14 years old)



2. Financial difficulties

PPR residents fall under the low-income group. The COVID-19 pandemic and MCO caused additional economic hardship.

Participants expressed financial hardships and negative impacts of income, uncertainty due to retrenchment, reduction, and loss of wages of their parents.

Additionally, they expressed distress because they persistently unable to access enough food and consistently worry about future food security.

As a result, by looking at parents' economic hardship, participants expressed the need to help their parents financially (earning money) rather than studying.

2.1. Parental/ Guardian Loss of Income and Job Insecurity

Ibu selalu macam ada masalah kewangan la sebab tak ada duit... Ha, sebab seminggu lepas tu cuti, seminggu lepas tu cuti.
Mother always seems to have financial difficulties because there is no money... Ha, because no work in the past week, and no work in the following week.
(R28, female, 14 years old)

Sejak PKP... mak saya stres sebab dia dah kena buang kerja, tak ada tanggungan untuk kitaorang... dia macam...tak ada kewangan untuk kitaorang... And then start dari situ saya rasa dia dah lain sikit dah dengan saya.
Since the MCO... my mother is stressed because she was fired from her job, there is no money for us... she is like... there is no money for us... And then starting from there I think she treats me a little different.
(R25, female, 17 years old)

Susah nak dapat duit... Kadang-kadang mak saya susah nak kerja...
It's hard to get money... Sometimes my mom finds it hard to get work...
(R46, male, 16 years old)

2.2. Food Insecurity

Selalunya macam tak boleh tidur kan... kerana selalu fikir ah... bila nak habis benda ini... This pandemic... Macam... kan dekat rumah kan macam makanan makin berkurangan...
Most of the time I can't sleep... because I always think... when will this thing ends... This pandemic... It's like... at home, food is getting less and less...
(R14, male, 16 years old)

Rasa serabut, rimas, penat sebab pikir duit nak beli barang-barang makanan untuk rumah... Kadang-kadang tak cukup.
I feel confused, overwhelmed, tired because need to think about money to buy food for the house... Sometimes it's not enough.
(R46, male, 16 years old)

2.3. Obligations to Help Financially

Saya rasa macam... kekadang... belajar... Saya rasa... kalau aku belajar pun... asyik belajar je... baiklah kalau aku cari duit... dapat juga duit... nak tolong mak ayah...
I feel like... sometimes... study... I think... even if I study... study only... it's better if I work... at least I get money... I want to help mom and dad...
(R2, female, 17 years old)

3. Relationship Issues

Participants expressed changes in relationship quality due to COVID-19. The poor relationship quality dan negative communication pattern were prominent problems during the COVID-19 dan MCO period.

They expressed struggling relationship and conflict with adults at home during the COVID-19/MCO which led to anger outburst by adults (e.g., parents, grandparents). According to these adolescents, adults' anger outbursts caused significant stress to them.

Additionally, these adolescents expressed decline in the quality of relationship and conflict among friends. Some adolescents recorded difficulties in contacting and getting response from their classmates or schoolmates which caused further distress.

3.1. Familial Stressors

Macam ni; sebelum pandemik tu, atuk okay lagi. Start pandemik tu atuk baran teruk gila.
Like this; before the pandemic, grandpa was okay. When the pandemic started, grandpa's temper got worse.

(R22, female, 14 years old)

Dia marah marah kitaorang… Maki maki… Kalau kitaorang duduk kat depan pun, dia cari masalah dengan kitaorang… Marah marah maki kitaorang.. Walaupun kitaorang tak buat salah pun, dia nak pukul kitaorang… masa pandemik makin teruk.
He gets angry at us… He insults us… Even if we sit in front of him, he looks for problems with us… He gets angry and insults us.. Even if we don't do anything wrong, he wants to hit us… the pandemic made it worse.

(R13, female, 13 years old)

Kitaorang setiap kali selalu gaduh dengan ayah tapi kadang-kadang la. Lepas tu selalu stress, lepas tu selalu macam salahkan diri sendiri… Kan sebab ayah selalu ambil. Kalau macam masa pandemik tu ayah nak ambil tapi ibu tak kasi sebab COVID kan. Lepas tu ayah macam push lepas tu gaduh.
We usually argue with father, but only sometimes. After that I always feel stressed, because I always blamed myself… It's because my father always picks me up. If it's like during a pandemic, dad wants to pick up but mom doesn't allow because of COVID, right? After that, my father was pushy, and then they argue.

(R28, female, 14 years old)

Masa dengan famili rasa macam kita tak enjoy la duduk rumah. Banyak terkurung dalam bilik. Tak cakap dengan mak ayah… Sebab mak ayah kurang nak sembang dengan anak-anak dia.
Time spent with family feels like we don't enjoy sitting at home. Always stay in the rooms. I don't talk to mom and dad… Because mom and dad don't want to talk to their children.

(R34, female, 17 years old)

3.2. Peer Problems

Pasal kawan-kawan... Diorang selalu tak kawan... Masa pandemik macam diorang ignore... Kalau Whatsapp bila tanya soalan homework ke diaorang diam aje.
With regards to friends...they don't want to be friends... During the pandemic, they ignore you... On WhatsApp, when you ask homework questions, they just keep quiet.

(R43, female, 13 years old)

Masa tu saya ada gaduh dengan kawan, lepas tu saya rasa macam diri saya ni tak guna la macam tu. Lepas tu rasa nak bunuh diri macam tu. Banyak kali la cakap macam tu. Lepas tu tengok cermin tengok diri sendiri macam tak guna... tahun lepas masa COVID.
At that time, I had a fight with a friend, then I felt like I was useless like that. After that I felt like killing myself. I feel that many times. After that, I looked in the mirror and saw myself as if I was useless... last year during the time of COVID.

(R28, female, 14 years old)

4. Effects of Social Isolation

Participants expressed feelings of entrapment, boredom and loneliness due to lockdown. The frustration of not being able to go outside and maintain their regular routines makes them feel trapped and bored. In addition, participants expressed feelings of loneliness and emptiness as the lockdown prevented them from meeting and socializing with friends.

Social isolation is not just about loneliness, it is the lack of interaction with others. In addition, the lack of interaction can lead to fear of meeting people.

Due to the prolonged lockdown, participants felt accustomed to the home confinement and felt uncomfortable when they had to leave the house, whereby they felt that they were being observed while outside. Compared to their pre-pandemic lives, participants now mentioned that they preferred being alone and feared meeting people.

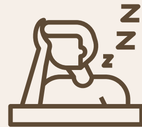
4.1. Feelings of Entrapment

Pandemik... sebab duduk rumah je, lepastu, hadap adik beradik yang lain... Jadi, terkurung, tak boleh keluar.
Pandemic... so just stayed at home, with siblings... So, confined at home, can't go out.

(R19, female, 16 years old)

Masa tu rasa macam terkurung... Sebab tak boleh keluar kan? Kalau nak keluar pun tak boleh semua. Macam stress jugaklah duduk rumah...
At that time, I felt like I was locked up... Because I couldn't get out, right? Even if you wanted to, you can't go out at all. It was stressful sitting at home...

(R39, female, 17 years old)

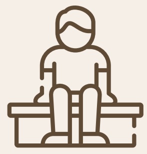


4.2. Bored

Rasa macam bosan, bosan sangat-sangat lah. Tak tahu, tak boleh nak pergi mana.
Feeling bored, so, so bored. I don't know, I can't go anywhere.
(R42, male, 17 years old)

Selalunya sebelum pandemik main kat luar, main kat bawah. Main futsal… So tak boleh turun rasa bosan… Rasa bosan lepas tu kalau duduk rumah tak tau nak buat apa.
Usually before the pandemic, can play outside, play downstairs. Playing futsal… Now, I'm bored because I can't go down… Feeling bored sitting at home and I don't know what to do.
(R43, female, 13 years old)

Bosan… sebab takleh keluar.
Bored… because I can't go out.
(R7, female, 10 years old)



4.3. Loneliness

Saya rasa kosong, lepas tu rasa duduk dalam rumah terkurung. Macam tak ada life sendiri… walaupun ada nenek dengan saya dalam bilik. Saya terfikir memang saya duduk sorang-sorang.
I feel empty, it felt like being confined at home. It's like I don't have a life of my own… even though my grandmother is with me in the room. It felt like I was staying alone.
(R34, female, 17 years old)

Berfikir… Masa PKP tu… Sebab asyik duduk rumah sahaja… Kan tak dapat pergi sekolah kan. Masa tu kan PKP masa darjah 6, tak habis sekolah lagi. UPSR pun ditangguhkan, jadi macam tak jumpa kawan… Rindu kawan.
(I'm) thinking… During the MCO… Because I'm just sitting at home… I can't go to school, right? During the MCO, I was in standard 6, haven't completed (primary) schooling yet. The UPSR exam was also postponed, so I didn't see my friends… I miss them.
(R35, female, 14 years old)

4.4. Fear of Meeting People

Sebabkan kita pandemik, kita duduk rumah jadi macam kita dah tak tahu dunia luar so dari situ kita dah biasa tak keluar so bila dah nak boleh keluar, saya rasa macam takut nak jumpa orang. Kadang-kadang kita risau, even kat luar rumah pun saya dah risau… sebab kadang-kadang ada diperhatikan ke apa ke… macam tu… Macam sebelum ni, saya friendly dengan orang, saya macam tak rasa takut, tak ada rasa rimas apa semua tapi lepas COVID ni saya lebih suka menyendiri, diam and tak cakap apa-apa dan lebih takut bila jumpa orang.
Because of the pandemic, we're at home so it's like we don't know what's happening outside anymore… so we're used to not going out… so when we want to go out, I feel like I'm afraid to meet people. Sometimes we worry, even when outside I'm worried… I feel people are observing me… like that… Like before, I was friendly with people, I didn't feel afraid, I didn't feel anything but after COVID, I prefer to be alone, keep quiet and not say anything and I'm more afraid when I meet people.
(R25, female, 17 years old)

Tak keluar rumah kan, dia macam tak biasa jumpa orang… Rasa takut.
Doesn't leave the house, not used to seeing people… Feeling scared.
(R35, female, 14 years old)

5. Pandemic-Related Stressor

Due to the pandemic, the Malaysian Government had imposed the MCO or lockdown as a measure to control the transmission of COVID-19. Although the MCO was done as a safety measure, however the prolonged lockdown has caused psychological distress to the participants. Participants voiced concern about having to experience another lockdown.

Fear of COVID-19 is felt when relatives were infected by COVID-19. This fear increased the level of stress for the participants.

5.1. Fear of Being in Lockdown

Macam takut jadi lagi lockdown lagi.
It's like afraid of being under lockdown again.
(R35, female, 14 years old)

Takut... macam... sampai bila nak macam ni (lockdown).
Afraid... like... until when will this (lockdown) lasts.
(R45, female, 14 years old)

Please no... Please not another lockdown.
(R6, female, 11 years old)

5.2. Fear of Family Members Infected by COVID-19

Time tu... atuk kena COVID... sebab time tu... atuk err... dah teruk sangat dah... saya stress... Sebab... biasa kalau apa-apa, saya rapat dengan atuk... rasa macam nak bunuh diri sebab macam saya, (biar) saya mati dulu baru atuk.
That time... my grandfather got COVID... because that time... my grandfather... it was really bad... I was stressed... Because... if anything happens, I'm close to him... I feel like I want to kill myself, (let) me die first then my grandfather.
(R47, female, 14 years old)

6. Living Environment

Participants expressed the difficulty of enduring the pandemic. Living in a confined space with a large family, especially during the MCO, was an uncomfortable experience for the participants.

Due to the confined space and overcrowding in their homes, participants experienced a lack of privacy, with female participants being most affected. They expressed discomfort at having to share their rooms constantly, and need more privacy and personal space.

6.1. Confined Space

Saya pun tak ada tempat nak belajar... Saya kan duduk ruang tamu jadi saya belajar tu atas meja makan la. Kadang-kadang kala... saya ada 7 famili, jadi kalau ada orang makan je saya terpaksa alihkan sikit-sikit.
I don't even have a place to study... I'm sitting in the living room so I study at the dining table. Sometimes if... I have a family of 7... so if someone eats, I have to move to make space.
(R23, female, 17 years old)

6.2. Lack of Privacy

Kadang tu tak (selesa) macam sebab saya seorang anak perempuan kan jadi kalau nak mandi… sebab diorang dah tidur luar… lepas mandi kan… jadi macam kurang selesa la sebab dah besar kan.
Sometimes it's not (comfortable) because I'm a girl, so when I want to take a shower… because people are sleeping outside… after taking a shower… so it's not comfortable because I am already grown up.
(R25, female, 17 years old)

Bilik kongsi dengan nenek… Tak ada privacy… Tak selesa kalau dah kongsi bilik macam tu.
Shared a room with grandmother… There is no privacy… It is not comfortable when you share a room like that.
(R34, female, 17 years old)

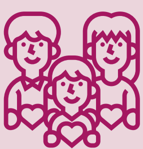
5.3. Coping Strategies

For coping strategies, the two main themes identified were adaptive coping and maladaptive coping. For adaptive coping, adolescents used social support, spiritual support, and tension reduction techniques. As for maladaptive coping, they used avoidance, self-harm, vaping and smoking.

Adaptive coping strategies

1. Social Support

Participants had shared with their mothers and sisters about their feelings, to get support to cope with problems. These individuals are most trusted and understanding for them. They needed the support for their emotional problems regarding school and peers' issues, growth, development, etc.



1.1. Parental and Family Support

Ada jer luah dekat akak, bagitahu kakak, pastu akak macam fahamlah.
I do share with my older sister, talk to her, and she sort of understands (me).
(R8, female, 16 years old)

Sebab mak yang paling saya percaya… saya share dengan mak saya, kalau apa-apa pun semua dekat mak saya… Saya selalu luah dekat mak saya.
Because my mother is the one I trust the most… I share with my mother, if anything, everything is with my mother… I always talk to my mother.
(R46, male, 16 years old)

1.2. Support from Peers

Kalau paling-paling cerita dengan kawan-kawan… kalau macam itu, release sikit ah.
If talking to friends at least… release (stress) a little.
(R14, male, 16 years old)

2. Spiritual Support

Participants tried to remind themselves that they are not alone whenever they are sad. Their feelings and beliefs towards God, Angels (*malaikat*) and Prophets (*Nabi*) helped them cope with any psychological distress during the pandemic.

By having faith in God, they prayed and recited the Quran as coping mechanisms in a sense where it helped them to create inner peace and cope with the stressful situation.

Kalau sedih ke apa, ingat Allah dalam hati... Malaikat kiri kanan kita, Nabi sentiasa ada depan mata kita, jangan sedih.
If you are sad, remember Allah in your heart... the Angels are by our side, the Prophet is always in front of our eyes, don't be sad.
(R3, female, 16 years old)

Solat... mengaji...
Praying.. reciting the Quran...
(R40, male, 13 years old)

3. Tension Reduction

Participants did physical activities to alleviate the psychological distress, by themselves or with family members or friends. They chose to dance until they get tired, to relieve their stress. Physical activities helped them relax their mind, lower overall stress levels and improve their quality of life, both mentally and physically.

Participants also shared similar interests with their friends and spent time together to make them happier and relaxed.

Participants also reduced stress by listening to music and watching funny videos. They feel relieved after having time on their own.

3.1. Active Leisure Activities: Physical

Saya suka menari... Saya akan praktis, praktis, praktis, praktis sampai lah malam... Sebab saya nak bagi diri saya tu penat, hilang benda (stres) semua...
I like to dance... I will practice, practice, practice, practice until night time... Because I want myself to be tired, and not think (about stress) anymore...
(R24, female, 16 years old)

Sometimes, I do hiking like that.
(R9, female, 17 years old)

Saya turun bawah pergi jogging ke, tenangkan fikiran lah.
I go downstairs to go jogging, to calm my mind.
(R16, male, 16 years old)

3.2. Active Leisure Activities: Social

Kadang-kadang keluar dengan kawan, kalau kawan ajak makan, keluar...
Sometimes go out with friends, if friends invite you to eat, go out...
(R14, male, 16 years old)

Saya keluar rumah... Saya jalan sorang-sorang cari ketenangan, tempat yang lawa.
I would go out of the house... I walked alone looking for peace, at a scenic place.
(R46, male, 16 years old)

3.3. Passive Leisure Activities

Tengok handphone 'jer 'lah... Tengok benda yang funny funny.
Look at the mobile phone... Look at videos that are funny.
(R24, female, 16 years old)

Dengar lagu untuk hilangkan stres.
Listen to songs to relieve stress.
(R8, female, 16 years old)

Mal-adaptive coping strategies

1. Avoidance

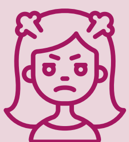
Participants thought positively that things will get better because they did not have any strength to solve their problems. They also thought that the problem is not that important and they convince themselves they can adapt with the situation.

Participants expressed their anger by punching or using a knife to scratch the wall or tear pillows or clothes.

They supressed their emotions and did not share their stress with others. They chose to shut themselves in their room and cry.

1.1. Cognitive Distancing

Sebab rasa cam benda tu tak penting, cam boleh adapt lagi.
Because I don't think that thing is that important, I can still adapt.
(R8, female, 16 years old)



1.2. Externalization

Cuma diam kalau rasa macam marah, tumbuk je la dinding tu... nak lepaskan kemarahan ke... guna pisau ukir-ukir kat dinding... kadang tu koyakkan bantal ataupun baju.
Just keep quiet if you feel angry, just punch the wall... to release the anger... use a knife to carve on the wall... sometimes tear the pillow or clothes.
(R25, female, 17 years old)

1.3. Internalization: Emotional Suppression

Pendam seorang je, tak ada share dengan sesiapa, kawan baik sendiri pun tak cerita, pendam sahaja.
Just keep it to yourself, don't share with anyone, not even tell your best friend, just hide it.
(R16, male, 16 years old)

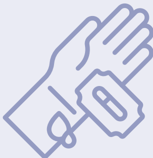
Pendam sendiri, tak cerita dengan sesiapa.
Keep it to yourself, not talk to anyone.
(R25, female, 17 years old)

1.4. Internalization: Isolating Oneself

Kadang-kadang saya kurung diri saya sorang-sorang, menangis, lepastu, kadang rasa nak marah tapi tak tahu nak marah kat siapa.
Sometimes I lock myself up (in the room), cry, then, sometimes I feel like getting angry but I don't know who to get angry with.
(R19, female, 16 years old)

2. Self-Harm

Some of the participants shared that they were influenced by peers and social media to hurt themselves to reduce the emotional distress, and replace it with physical pain.



Saya pernah je telan panadol sampai 3, 4 biji sekali lepas tu tidur, lepas tu tak makan... lepas buat tu macam.. lega. Daripada tahan sakit semua, pendam sorang-sorang... Sebab saya rasa mati la lagi elok.
I once swallowed up to 3, 4 panadol pills at a time and then went to sleep, then didn't eat... then it was like... felt relieved. Instead of enduring all the pain, keeping it to yourself... Because I think it's better to die.
(R39, female, 17 years old)

Toreh tangan... tengok dekat YouTube, TikTok... Kurang sikit (stres)... Takde rasa sakit kalau stres.
Cutting my arms... look at YouTube, TikTok... feels less stressed... There's no pain when you're stressed.
(R47, female, 14 years old)

3. Vaping and Smoking

Participants were more tempted to vape and smoke cigarettes, and played games on mobile phones when they feel stressed.

Hisap vape... Masa saya stres macam tu saya hisap.
Vaping... When I'm stressed like that I vape.
(R20, male, 16 years old)

Saya hisap rokok.
I smoke cigarettes.
(R46, male, 16 years old)

5.4. Help-Seeking Behaviour

For help-seeking behaviour, the two main themes identified were seeking help and hindrances for help-seeking.

Adolescents sought help from formal sources (i.e., where they reached out to school counsellors and they utilized help-line services provided, and support services from other agencies) and informal sources (i.e., from family and friends).

We found that factors that hinder the adolescents from seeking help were lack of trust, perceived ineffectiveness of support, and the personality of the adolescents (that they prefer to resolve the problems on their own).

Seeking Help

1. Seeking Help from Formal Sources	Participants were aware of and had sought for assistance from a variety of formal sources to manage and deal with stress.
1.1. Reaching out to School Counsellors	I have counselling at school as well. (R9, female, 17 years old)
1.2. Utilization of Helpline Services	Pernah saya buat sekali (call helpline)... Pernahlah cuba call dia, waktu tu sekali je... tahun lepas (masa PKP). *I've done it once (call helpline)... I've tried to call, that time only once... last year (during the MCO).* (R3, female, 16 years old)
1.3. Utilization of Support Services from other Agencies	Saya ada yang dekat LPPKN tu ada yang kafe@TEEN tu. Ada unit kaunseling... dulu diaorang selalu datang sini buat program. Masa diaorang suruh daftar ahli dekat kafe@TEEN saya masuk dekat sana lepas tu ada banyak-banyak program, saya join la. Masa PKP tu pun ada juga... dari situ la saya release tension. *I visited the one at LPPKN with the kafe@TEEN. There is a counseling unit... they used to always come here for programs. When they told me to register as a member of kafe@TEEN, I went in there and there were many programs, so I joined. There were running programs during the MCO period... there I released my tension.* (R34, female, 17 years old)

2. Seeking Help from Informal Sources	Participants had attempted to seek assistance from family and friends in order to cope with stress.

2.1. Help from Family and Friends

Saya minta mak nasihat.
I asked for advice from mum.

(R46, male, 16 years old)

Bercerita masalah saya. Pastu, saya cakap kalau boleh tolong lah buat apa-apa, kan, sebab, uh, atuk saya macam tu. Dia orang pun faham sebab dia orang memang tahu perangai atuk saya pastu dia orang cuba tolong lah… Macam, tinggal dekat rumah dia sekejap ke.
Talking about my problem. I said if you can help me do anything, right, because, uh, my grandfather is like that. They also understand because they know my grandfather's behaviour, so they try to help… Like, stay at their house for a while.

(R22, female, 14 years old)

Hindrance from Help-Seeking

1. Lack of Trust	Participants lacked trust to seek help from formal or informal sources, as they are worried that their problems will be made known to others.

Macam mak la, kalau cerita kat mak pun mak kadang-kadang tak percaya kalau sakit ke, apa ke, mak tak percaya.
My mother, if I tell her something, sometimes she doesn't believe me, if I am sick, if there's any wrong, she doesn't believe me.

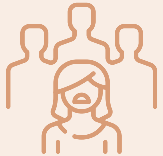
(R43, female, 13 years old)

Ada hari tu diaorang dekat TV, kalau ada masalah apa-apa ke, try lah call nombor ni… Nak try la, hm… Tak payah la, takut pulak aku nak bagitahu orang… Takut orang bagi tau orang lain la. Ha, dia dah tahu lepas tu dia bagitahu orang lain.
This one time it was announced on TV, if there is any problem, try calling this number… I want to try it, hm… I changed my mind, I'm afraid to tell people… I'm afraid people will tell other people. Ha, they now know and then they will tell others.

(R44, female, 17 years old)

Saya tak berapa percaya kaunselor sekolah, err… selalu kan, kalau cerita masalah kat sekolah, esok satu sekolah tahu masalah.
I don't really trust the school counsellor, er… it's always, if you talk about a problem at school, tomorrow the whole school will know about the problem.

(R19, female, 16 years old)

2. Perceived Ineffectiveness of Support	Participants believed that if they shared their problems with others, they will be scolded, misunderstood, blamed and/or would not get the kind of support that they expected or deserved.
	Sedangkan, ibu pun tak faham. Nak cakap dengan ibu pun, ibu bekerja. Kalau cakap dengan ayah, ayah bising. *Meanwhile, even mum did not understand. Want to talk to mum, mum busy working. If you talk to dad, he will make a fuss.* (R38, male, 13 years old)
	Serabut, macam kadang kalau bercerita pun takde sapa yang faham. Semuanya nampak salah kita je. *It is a mess, it's like sometimes when you tell a story, no one understands. Everything seems to be your fault.* (R39, female, 17 years old)
	Sebab kalau dia tahu pun, belum tentu boleh tolong kita. *Because even if he knows, he is not able to help us.* (R41, female, 14 years old)
3. Personality	Participants preferred to resolve their problems on their own rather than seek for help from others, in order to avoid being perceived as a weak person.
	Sebab saya tak suka nampak diri saya ni rendah. *Because I don't like to see myself as weak.* (R23, female, 17 years old)
	Kita jenis yang hidup kita, kita pendam seorang-seorang… Sebab jenis kita anak sulung, so dia macam, tanggungjawab dia besar. Pastu, bila kita sedih, aku kena tunjuk kuat kalau aku sedih ke apa ke. *We are the kind of people, keep our emotions to ourselves… Because I am the eldest child, so it is like a big responsibility. Then, when we are sad, I have to show that I'm strong even when I am sad.* (R45, female, 14 years old)

5.5. Outcome of Referrals

This section is not part of the research objectives. However, the research team has decided to include this section in this report for several reasons:

1. The research team felt they have a responsibility to follow up on the status of the referrals that were made;
2. The Family Health Development Division, MOH felt that it was also important to follow up on the referrals; and
3. This was also an opportunity to examine further the help-seeking behaviour of the parents/ guardians of the participants related to the referrals themselves.

Out of the 1,578 participants who completed the questionnaire, a total of 194 participants were identified with psychological distress. These participants all received onsite counselling support, provided with the referral letter to the nearest healthcare facility that has been identified, as well as provided with a copy of the mental health intervention booklet.

As indicated earlier, a series of follow-up telephone calls were done by the Research Team. The outcome of these follow-up calls is summarized in Figure 5-1 below. Out of the 125 participants' parents/guardians who answered the follow-up calls, only 17 had claimed that they attended the healthcare facility for their referrals. However, the research team also found that 42 parents/guardians still had the intention of bringing their child to the healthcare facility, despite not going at the time of the follow-up calls.

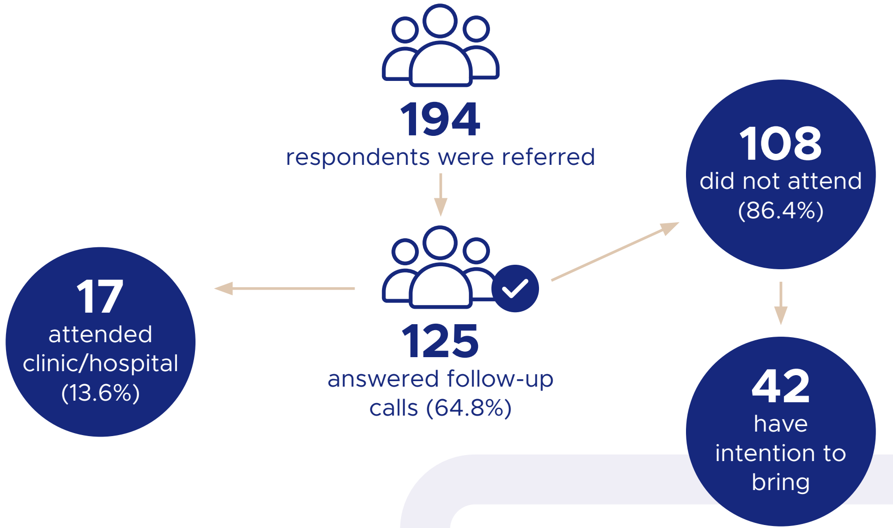


Figure 5-1. Oucome of follow-up calls of participants referred

In addition to following-up with the parents/guardians on their attendances to the healthcare facilities, for non-attendees, the research team enquired on the reasons why the parents/guardians didn't bring their child to the clinic. The reasons included:

- Time constraint
- "My child is fine"
- Transportation issues
- Loss of referral letter
- Child not around
- Child not interested
- Financial issues
- Current health issues of parents/child
- Unsure of referral procedure
- Forgotten

For the attendees, the research team also sought the reasons as to why the parents/guardians brought their child to the clinic. The reasons included:

- Referral letter
- Parental concern
- Concurrent clinic appointment
- Parent recognizes the need for professional support
- Self-motivated participant (child)

Based on the experience of the intervention component of this study, there were several key learning points:

1. These set of interventions were a critical component of the study.
2. Active follow-ups and reminders via phone calls are also very important.
3. Despite the follow-up calls, only 17 participants (out of 194 referred) claimed to have attended the clinic/hospital for further evaluation and intervention.
4. Several facilitators and barriers for attendance were identified and would benefit from a future follow-up study.

DISCUSSIONS

6. DISCUSSIONS

6.1. Levels of Psychological Distress

Overall, our study found that 12.3% of adolescents aged 10 to 17 years living in PPRs have psychological distress. Of these, 10.7% have depression symptoms, and 7.2% with anxiety symptoms. In addition, 13.4% participants reported suicidal and self-harm thoughts (based on item 9, PHQ-9). The prevalence for psychological distress is higher in our study compared to the results of NHMS 2019, where the overall prevalence of mental health problems among children was 7.9% [74]. The higher prevalence from our study was most likely contributed by the COVID-19 pandemic as supported by other studies around the world [80,81].

The COVID-19 pandemic has had a variety of negative effects on the physical and mental health of adolescents [82], and the findings of this study on the levels of depression and anxiety are similar to studies such as in China [83], Lithuania [84] and Italy [85]. A systematic review showed that there was an increase in global prevalence of child and adolescent mental illness during COVID 19 pandemic [86].

In terms of the findings related to suicidal intentions and self-harm in our quantitative survey, they are consistent with a systematic review on the prevalence of suicidal intention among adolescents, whereby one in ten of this population experienced suicidal intention in their lifetime within the past 12 months, and 1.5% of them had engaged in hurting themselves with or without intention to die [87]. It is further strengthened by the findings from the qualitative component of this study when adolescents shared experiences of suicidal intentions and self-harm due to stress from the pandemic, which was also found in other studies [88,89].

In this study, depression and anxiety symptoms were found to be significantly higher among females, older age group (16-17 years old) and engaging in risky behaviour such as substance abuse, alcohol consumption and smoking. Our study is in line with the results of NHMS 2019, which revealed that females had a higher incidence of mental health issues compared to males and that older adolescents were more prone to such problems [74, 90]. Furthermore, our research uncovered that females were more likely to experience depression and anxiety, possibly due to hormonal changes during puberty, pre-menstruation, pregnancy, and perimenopause. These fluctuations in hormones can trigger depression [91]. Adolescent girls, in particular, are sensitive to the hormonal effects during puberty and these hormones, in conjunction with gender-related stress, contribute to the difference between genders.

We found that older adolescents were more likely to experience psychological distress. Adolescents in secondary school, particularly those who are in their senior year, may be concerned about their academic plan being disturbed during the COVID-19 pandemic, as well as feeling pressure from their parents, family, and friends, which could worsen any psychological distress [92].

In this study, we found adolescents who engaged in risky behaviours such as smoking, alcohol consumption and drug abuse are prone to have psychological distress. This finding in congruent with other studies that showed the relationship between risky behaviour and depressive symptoms [93-96]. It is suspected that individuals who experience negative emotions like depression and anxiety, engage in risky behaviours as such behaviours lead to a reduction in the negative affect associated with the mental problems. Risky behaviours may therefore be a coping strategy for some individuals, by offering a means to avoid or distract from their current emotional state [97].

Adolescents who come from families with divorced parents or guardians are at a higher risk of depression due to living in a single-parent household, which is common for many individuals who have gone through a separation, either for a short or long time. This often leads to limited resources, including a lower socio-economic status and less social support and supervision, which in turn are likely to have a negative impact on their mental health [98].

Our study found that adolescents owning electronic devices and living with working mothers were also significantly associated with depression. Several studies have shown that the usage of mobile devices by children and adolescents may be associated with depression [99-101] Although the internet can be a powerful tool of education, information, and entertainment, it also has created some problematic behaviours [102]. In the qualitative component of this study, we found problematic internet use among the adolescents. They were exposed to various negative contents and were unable to filter the contents.

For example, these adolescents were exposed to inappropriate methods of stress management such as self-cutting, resulting in action [103]. This problematic internet use further increased the risk of having mental health issues [104].

According to a previous study, students who engaged in online learning through smartphones or computers during school closures caused by the pandemic, particularly if there was no parental or teacher monitoring of device and social media use, might exhibit problematic use of applications or social media [92]. Chen *et al.*'s study found a stronger association between problematic smartphone application use, problematic social media use, and psychological distress among adolescents during the COVID-19 pandemic than those who participated in online learning at home prior to the pandemic [105].

Studies have shown that living with working mothers can have a negative impact on children's mental health, leading to higher rates of mental health problems. This was confirmed by a study by B. Kumar Dey *et al.* in Dhaka, which found that children of working mothers suffer from more stress and depression than those with non-working mothers [106]. This can be attributed to the reduced time that working mothers are able to spend with their children, leading to poor communication, lack of attention, and unmet emotional needs [107]. The stress experienced by working mothers can also be passed on to their children, increasing the risk of adolescent depression [108,109]. Homes with stressed and mentally unwell mothers may also have negative parenting practices (including belief in the use of corporal punishment and practice of more harsh or inconsistent parenting), which can negatively impact a child's physical and mental health as well as school performance [110]. Furthermore, mothers with stress and depression may not be able to provide their children with the necessary emotional support, further increasing the risk of depression in the child [110].

6.2. Sources of Psychological Distress

From the qualitative component of the study, six main themes for factors of psychological distress were identified: (i) Challenges of online learning; (ii) Financial difficulties; (iii) Relationship issues; (iv) Impact of social isolation; (v) Pandemic-related stressors; and (vi) Living environment. Several factors that were triggered during the start of the pandemic persisted until the time of data collection i.e., financial difficulties and relationship issues.

These findings are consistent with many studies on the causes of psychological distress during the COVID-19 pandemic, which included the challenges of online learning [111,112], parents' financial difficulties [113], relationship issue [114], social isolation [115], the living environment [116], and pandemic-related stressors [117].

Education is a fundamental right for all children and adolescents in Malaysia. Therefore, during the COVID-19 pandemic and the subsequent MCO resulting in school closures, the Ministry of Education transitioned to online classes known as the PdPR (Home-based teaching and learning) that were delivered via the GoogleMeet platform [118]. However, the adolescents faced many challenges during the PdPR. One such challenge we found was the lack of devices, similar to another study that good device facilities and internet access are required for PdPR, and therefore students who are sharing devices with siblings and family members have limitations in usage time [119].

Apart from the lack of devices, difficulty in understanding and adapting to the PdPR and experiencing poor focus are stated as the challenges of online learning that led to psychological distress among these adolescents. Similarly, a study reported that technical problems, difficulties in understanding instructional goals, setting priorities, controlling their attention and feeling less motivated were found to be the major barriers for online learning [120]. Therefore, students had to spend more time and effort to study independently, which in turn may cause harm to their mental health [121].

Our study also found that family commitments have an impact on online learning, and this is consistent with a study that concluded that due to financial difficulties, some students are required to work for their family's survival [122]. If their school or university conducted classes at the same time, their job can interfere with their classes. Even if the classes do not interfere with their job, they can be too exhausted to attend classes. Parents/guardians who lost their jobs or have decreased wages may worry about their future financial stability. As a result, they could fail to engage and motivate their children. Online learning is already challenging, and having little to no motivational support from family members makes it even harder for the children [122].

Apart from these, another factor that contributed to the challenges of online learning is the lack of student-teacher interactions. In our study, the respondents gave feedback that there was less interaction in online classes compared to physical classes. This is supported by a previous study which stated that for online classes, educators should designate students as "listeners" or "viewers" and encourage their active participation to connect, converse, work together, share, and advance collective knowledge [123].

Other challenges of online learning to highlight are too many assignments, and no interest or lack of motivation. Students' complaints about the heavy workloads given out by teachers during online learning, as compared to during physical classes. According to a previous study, participants reported that there was a considerable increase in online tasks and a decrease in motivation [123]. In addition, the uncertainty of the future is one of the contributing factors for the challenges of online learning. There were students who complained that they were thinking about their future in the middle of the night, which led to insomnia and sleep deprivation. A study found that although the participants were sufficiently informed about COVID-19 outbreak, they were still extremely concerned about their academic future [124].

Our study found that parents and guardians in PPRs were facing financial difficulties due to job insecurity and loss of income during the pandemic [15,125,126], similar to a report published by UNICEF Malaysia on urban child poverty and deprivation in low-cost flats in Kuala Lumpur [127]. The adolescents can feel the stress of their parents/guardians due to the financial concerns, which in turn created fear. They fear that their parents/guardians might not be able to provide sufficient food [128]. Adolescents are sensitive toward the feelings of the adults around them because these adults are their primary source of security and emotional well-being [113].

Relationship issues between family members and peers is another factor that could affect mental health among adolescents. During the MCO, they felt entrapped especially with their family members, especially when their relationship was not good and they felt anxious of causing any fights [114]. Fights between family members, especially siblings were also more recurrent, although they appreciated the ample time spent with each other [129].

The adolescents in the PPRs also reported changes in their social life due to social isolation during the COVID-19 pandemic. They experienced a great deal of fear in meeting people; this feeling is so intense and gets in their way of doing everyday things. These

changes in their social life have an impact on mental health and our findings are consistent with a study in Lithuania which showed that those who are dealing with this situation have difficulty adjusting to the real world, whereby they worry about engaging in social situations [84].

However, there are also several factors related to the effect of social isolation, which includes boredom, loneliness and feeling of entrapment. These are supported by previous studies that emphasized on the experience of feeling trapped among adolescents that made them feel the loss of their independence and miss out on important things and events [129,130]. The immense boredom that they experienced made them feel less motivated, which led to increased screen time as they sought distraction by using social media and playing video games to pass the time [131]. Despite that, they still experienced loneliness due to being in lockdown as they felt a lack of enjoyment and felt disconnected. A study found that this lack of connection and isolation has led loneliness being common among these adolescents during the lockdown [115].

Lack of adequate living space in the PPR units has also contributed to the psychological distress. The average floor space of the typical PPR unit is only 700 square feet [132]. Dividing this with 6.19 occupants, the mean number of occupants found in this study, is equivalent to only 116 square feet per person per unit. During the pandemic and MCO, all family and household members have to remain indoors for extended periods of time, in a crowded and cramped space, which led to difficulties in having their own space and privacy, similar to another study [116]. In addition, adolescents experienced more conflicts among family members especially siblings as they have to share their space and privacy [84] thus, they felt more stressed [133]. However, as a result of the enforced and prolonged home confinement because of the MCO, some of the adolescents in our study expressed fear of going outside as they already feel comfortable and safe staying home, a finding similar to other studies [134,135].

Lastly, adolescents living in PPRs are affected by the risk of their family members being infected by COVID-19. Those who have friends or family who contracted or died from COVID-19 felt more depressed, anxious, and stressed [117]. This is similar to the findings of several other studies that found adolescents also experienced constant worries about losing loved ones caused by the COVID-19 infection [136,137].

6.3. Coping Strategies

While we identified several adaptive coping strategies i.e., social support, spiritual support and tension reduction, we also found several maladaptive coping strategies i.e., avoidance, self-harm, vaping and smoking. This study found that adolescents practised maladaptive strategies to cope with stressors related to COVID-19. Our findings are consistent with a previous study from a European country whereby adolescents aged below 14 years old were more likely to avoid their problems to cope with stressful situations [138]. Previous studies reported that adolescents believed that negative emotions need no evaluation and regulation with rationality, hence avoiding the problems was the simplest and quick way to handle stress [138,139].

Although cognitive restructuring was found to be associated with better psychological well-being [140] and cognitive distancing (avoidance strategy) reported otherwise, adolescents perceived that the first strategy was impractical and complicated to apply in daily life [139]. Furthermore, avoidance coping strategies were used in three forms, cognitive distancing, internalization, and externalisation. Internalization is associated with emotional suppression. Although the avoidance coping strategy was easy to use, high usage of this strategy was found to be significantly associated with symptoms of mental illness among adolescents [141].

The quantitative component of this study found 13.4% of adolescent have thoughts of suicidal and self-harm. The qualitative component further found that these adolescents mentioned using self-harm as one of their coping strategies. Skin cutting or self-harm with or without suicidal intent was identified as a maladaptive coping strategy among adolescents. Our study found that these adolescents do not just cut their hands (also colloquially known as "barcode"), but they also consume unknown medications (without prescriptions) to alleviate their stress. The possible explanations for this kind of maladaptive behaviour could be varied.

A study revealed the causes of self-harm can be classified into family-related factors, environmental factors, and individual factors [142]. Another study found that self-harm behaviours were typically used by adolescents to regulate their negative emotions [143]. Adolescents in this study shared they would rather suffer physical pain (doing self-harm) to obtain temporary relief from their emotional pain. Research also showed that adolescents with a prior history of non-suicidal self-injury and poor emotion regulation skills before the COVID-19 pandemic reported higher levels of COVID-19-related stress, which in turn increased their risk to engage in self-harm behaviour [144].

Our quantitative findings showed that the adolescents involved in risky behaviours (smoking, drinking alcohol and using drugs) were significant associated with depressive and anxiety symptoms. We found in the qualitative component of our study that smoking or vaping was one of their coping strategies to adapt with stress during the MCO period. A study suggested that psychological distress increased from 2019 to 2021, and e-cigarette or vape was significantly associated with the increased levels on both measures on psychological distress among adolescents [145]. Similarly, stress levels during the COVID-19 pandemic was independently and positively associated with vaping as well as other substance use [146]. However, a study in Iceland revealed a different result from our study, whereby there was a decline in cigarette smoking and e-cigarette use among 15 to 18 year-old adolescents during the COVID-19 pandemic [147].

6.4. Help-seeking Behaviour

Lastly, with regards to help-seeking behaviour, the respondents sought help from formal sources and informal sources. Several hindrances for help-seeking were identified, including lack of trust, perceived ineffectiveness of support and personality of the individual.

Our study found that older adolescents age 13 years old and above are more likely to have depressive symptoms than younger adolescents (10 to 12 years old). Older adolescents described more about seeking help from formal sources than younger adolescents. These older adolescents experienced seeking help from formal sources such as a teacher, or teletherapy from an NGO or government agency at least once during COVID-19 period. In Australia, a study showed an increased demand for the helpline type of support when the pandemic was declared [148]. The callers were girls aged from 13 to 18 years old. The common reason for contact was concerns related to COVID-19 [148]. The possible explanation for this finding is that older adolescents are more cognitively developed than younger adolescents [149], thus, they are able to seek help from external sources to solve their problems better [150]. Nevertheless, this type of support was rated as the least helpful as compared to support from informal sources such as parents, friends, or immediate family members [151].

This study found adolescents sought help from their mothers or an immediate family member such as their grandparents. They reported that they often asked for opinions from family members and needed them to listen to their problems. This finding was supported by a previous study whereby the majority of adolescents who experienced online learning during COVID-19, relied on the support from their families to overcome or minimise the impact of COVID-19 challenges specifically on the aspect of online learning [152]. Besides, informal sources were reported to be the most helpful by the majority of adolescents [151].

6.5. Study Limitations

This study has several limitations. Firstly, the study population included PPRs only in the Klang Valley and the population living here were used to represent the low socioeconomic group. However, PPRs exist in all of the major cities throughout the Malaysia, and the lower socioeconomic group also lives in various localities outside of PPRs. In addition, this study only included the urban populations. Therefore, the representativeness of the study may be limited.

In addition, the ethnicity composition of the PPR population is also skewed towards the Malay ethnicity, with fewer Indian and Chinese ethnicities. Therefore, future studies should consider this maldistribution so that the perspectives of all major ethnicities in Malaysia are studied.

CONCLUSION AND RECOMMENDATIONS

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7.1. Conclusion

All over the world, the COVID-19 pandemic has disrupted lives and livelihoods. The COVID-19 pandemic had impacted the psychological health of people and society as a whole. This study showed that the COVID-19 pandemic has various negative psychological impacts on adolescents living in the Klang Valley PPRs, exacerbated by their poor living conditions, family issues and PdPR. This study also provided in-depth information on the changes in cognitive and behavioural patterns, financial difficulties, relationship issues, effects of social isolation, pandemic-related stress, and their living environment, as well as maladaptive coping strategies and help-seeking behaviours. To our knowledge, this the first qualitative study that explores the impact of COVID-19 pandemic on mental health among adolescents in urban poor in Malaysia.

Reducing the psychological effects from the COVID-19 pandemic are crucial for adolescents, especially now as we are moving towards endemicity. Even prior to the pandemic, mental health issues, especially in adolescents, are already being addressed and discussed. Both the National Social Policy and the National Community Policy were enacted to address the various social issues in the community, including for adolescents. In addition, the National Adolescent Health Policy was developed specifically for the mental and physical development of adolescents. These policies are complemented by various strategic plans and action plans from key agencies such as the Ministry of Health, the Ministry of Women, Family and Community Development, the Ministry of Youth and Sports, the Ministry of Education, and by Local Authorities.

7.2. Recommendations

Based on the findings of the study, we would like to make the following recommendations to reduce the level of psychological distress, encourage more adaptive coping strategies and improve help-seeking behaviour. These interventions must be gender-specific tailored to the needs of the specific populations and addressing the needs of vulnerable groups.

1. Strengthen and expand mental health services for adolescents

i. Expand the current scope of the PeKa B40 program to cater for adolescents for early screening for mental health. The Skim Peduli Kesihatan for the B40 group (or PeKa B40) is a government initiative via the MOH which aims to sustain the healthcare needs of low income groups.

ii. Leverage on the existing MySejahtera application for the self-screening platform, and link with the Mental Health Services for further intervention.

iii. Enhance and increase accessibility of community-based mental health services e.g., through the *Klinik Komuniti* (Community Clinic) at PPRs, expanding the Adolescents Health Services (*Perkhidmatan Kesihatan Remaja*) at MOH health clinics and Community Mental Health Centres (*Pusat Kesihatan Mental Masyarakat* or MENTARI).

iv. Promote safe and inclusive helpline services for every adolescent in Malaysia by emphasizing confidentiality of the callers and ability to choose the gender of their counsellor to ensure comfort and trust.

2. Create a community resilient in mental health and ensuring a focus on adolescents in low-income communities

i. Improve mental health literacy among adolescents and their carers (parents, family members, guardians, and peers). There are four suggested interventions to increase mental health literacy which can be categorized into school-based and community-based: (a) community-wide campaigns; (b) community campaigns targeted at adolescents; (c) interventions taught in schools that teach help-seeking abilities, adaptive coping skills, mental health literacy, and resilience; and (d) initiatives that teach individuals how to better intervene in mental health crises.

ii. Use related health promotion models and nudges strategies to direct the development of future interventions could increase the efficacy of those interventions. It is important to design relevant interventions into specific target groups, to ensure that messages are tailored to the needs and preferences of those groups.

iii. Strengthen strategic collaboration between MOH, other government agencies such as MOE, academia and civil society, in regularly monitoring the communities' mental health condition, and developing suitable interventions based on the findings.

iv. Expand positive support groups among adolescents in tackling social issues, especially on mental health through physical and virtual (online) platforms e.g., "Kafe@TEEN" organized by LPPKN, which would enable adolescents to stay connected as a group with credible individuals and share information.

v. Identify barriers, attitudes of low trust, and seek solutions to improve help-seeking behaviour practice.

3. Create a comfortable and supportive living condition for PPR residents

i. Strengthen social entrepreneurship programs in communities to raise income and enhance the financial well-being of the PPR community. Potential funding sources for each PPR must be identified, along with training and financial advice.

ii. Provide family and individual counselling to the PPR community as needed. This counselling service can be a strategic partnership between the LPPKN, the Social Welfare Department (JKM), health care providers, and universities.

iii. Encourage and provide platforms to PPR communities to increase mental health awareness and to remove mental health stigma through community programs such as leisure and recreational community services and social events.

iv. Create safe, accessible and free spaces to be used by the adolescents living in the PPRs, focusing on the needs of the female adolescents.

4. Ensure online learning can be conducted effectively for all adolescents in preparation for possible future pandemics, when lockdowns may again be enforced.

i. The Ministry of Education (MOE) to fully evaluate of the challenges faced by teachers, adolescents, and parents/guardians in the implementation of PdPR, and develop strategies to address all of the challenges identified.
ii. Create, maintain and strengthen supportive infrastructure for conducive online learning.
iii. Prepare teachers by providing training on how to manage online classes and utilizing technology. Simultaneously, it is important to offer support to teachers to effectively integrate technology into their teaching strategies and assist students in overcoming any challenges related to this type of learning environment. Providing training to teachers on using digital resources for effective pedagogy and promoting teaching methods suitable for this context is crucial to ensure that technology is utilized to its full potential.
iv. Prepare students for a possible return to online learning. Fostering a positive attitude towards learning can assist students in overcoming potential difficulties such as staying focused during virtual classes or maintaining motivation. Strong attitudes towards learning are also crucial in supporting students in utilizing information and communication technology effectively and making the most of educational technology. A positive outlook towards learning, self-regulation skills, and intrinsic motivation are essential in enhancing overall academic performance, and they become even more crucial in case online learning continues.
v. Establish a monitoring system during online classes to ensure that students are learning effectively and minimize absenteeism.

5. Invest in the young population by creating an opportunity for learning in vocational areas, and ensuring adolescents in PPR have opportunities to make better choices in education pathways

i. Raise awareness among adolescents and parents/guardians on Technical and Vocational Education and Training (TVET) such as *Program Ikhtisas* by the Selangor State Government, and skills training by the *Institut Kemahiran Belia Negara* (IKBN), *Institut Kemahiran Mara* (IKM), and *Institut Latihan Perindustrian* (ILP). These programs may overcome issues among the PPR adolescents who are less interested to continue schooling or have dropped from schools.
ii. Provide and strengthen career counselling starting in primary and secondary schools to help adolescents make early career plans for themselves and nudge them to make a better career choice.

A summary of the recommendations based on different domains is shown in Table 7-1. A holistic approach to mental health involves taking a comprehensive and integrated approach to addressing mental health problems, and involves the collaboration of various stakeholders, including agencies, government bodies, and NGOs.

Table 7-1 Summary of Recommendations by Domains

DOMAIN	ORGANIZATION	RECOMMENDATIONS
HEALTH SERVICES	MOH	• Enhance and increase accessibility of community-based mental health services. • Leverage on the existing MySejahtera application for the self-screening and intervention. • Promote safe and inclusive helpline services for every adolescent in Malaysia. • Improve mental health literacy among adolescents and their carers (community-based interventions). • Strengthen inter-agency collaborations. • Use related health promotion models and nudges strategies to direct the development of future interventions. • Identify barriers, attitudes of low trust, and seek solutions to improve help-seeking behaviour practice.
	ProtectHealth Corporation	• Expand the current scope of the PeKa B40 program. • Use related health promotion models and nudges strategies to direct the development of future interventions. • Identify barriers, attitudes of low trust, and seek solutions to improve help-seeking behaviour practice.
EDUCATION	MOE	• Improve mental health literacy among adolescents and their carers (school-based interventions). • Strengthen inter-agency collaborations. • Raise awareness among adolescents and parents/guardians on TVET • Provide and strengthen career counselling in schools. • MOE to fully evaluate of the challenges faced by teachers, adolescents, and parents/guardians in the implementation of PdPR, and develop strategies to address all of the challenges identified. • Create, maintain and strengthen supportive infrastructure for conducive online learning. • Prepare teachers by providing training on how to manage online classes and utilizing technology. • Prepare students for a possible return to online learning by fostering a positive attitude towards learning. • Establish a monitoring system during online classes to ensure that students are learning effectively and minimize absenteeism. • Identify barriers, attitudes of low trust, and seek solutions to improve help-seeking behaviour practice.
SOCIAL & WELFARE	JKM	• Expand positive support groups among adolescents in tackling social issues. • Provide and strengthen career counselling. • Strengthen social entrepreneurship programs in communities to raise income and enhance the well-being of the PPR community.
	DBKL Selangor State Government	• Raise awareness among adolescents and parents/guardians on Technical and Vocational Education and Training (TVET). • Provide and strengthen career counselling. • Strengthen social entrepreneurship programs in communities to raise income and enhance the well-being of the PPR community. • Encourage and provide platforms to PPR communities to increase mental health awareness and to remove mental health stigma through community programs. • Supportive infrastructure for conducive online learning. • Create safe, accessible and free spaces to be used by the adolescents living in the PPRs, focusing on the needs of the female adolescents.

References

1. UNICEF. Convention on the Rights of the Child. 1989.
2. UNICEF. UNICEF Programme guidance for the second decade: Programming with and for adolescents. *UNICEF: New York, NY, USA.* 2018.
3. Ghosh R, Dubey MJ, Chatterjee S, Dubey S. Impact of COVID-19 on children: special focus on the psychosocial aspect. *Minerva pediatrica.* 2020;72(3):226-235.
4. Sundarasen S, Chinna K, Kamaludin K, et al. Psychological impact of COVID-19 and lockdown among university students in Malaysia: implications and policy recommendations. *International journal of environmental research and public health.* 2020;17(17):6206.
5. Institute for Health Systems Research. Malaysia Health Sector Response to COVID-19 Pandemic. In: Institute for Health Systems Research (IHSR), Ministry of Health Malaysia ...; 2020.
6. Zhou S-J, Zhang L-G, Wang L-L, et al. Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European child & adolescent psychiatry.* 2020;29(6):749-758.
7. Amerio A, Brambilla A, Morganti A, et al. COVID-19 lockdown: housing built environment's effects on mental health. *International journal of environmental research and public health.* 2020;17(16):5973.
8. Newlove-Delgado T, McManus S, Sadler K, et al. Child mental health in England before and during the COVID-19 lockdown. *The Lancet Psychiatry.* 2021;8(5):353-354.
9. Veldman K, Reijneveld SA, Ortiz JA, Verhulst FC, Bültmann U. Mental health trajectories from childhood to young adulthood affect the educational and employment status of young adults: results from the TRAILS study. *J Epidemiol Community Health.* 2015;69(6):588-593.
10. Lee J. Mental health effects of school closures during COVID-19. *The Lancet Child & Adolescent Health.* 2020;4(6):421.
11. Stevenson E, Barrios L, Cordell R, et al. Pandemic influenza planning: addressing the needs of children. *American Journal of Public Health.* 2009;99(S2):S255-S260.
12. Nearchou F, Flinn C, Niland R, Subramaniam SS, Hennessy E. Exploring the impact of COVID-19 on mental health outcomes in children and adolescents: a systematic review. *International journal of environmental research and public health.* 2020;17(22):8479.
13. UNICEF. Statement on deaths by suicide among children. https://www.unicef.org/malaysia/press-releases/statement-deaths-suicide-among-children#:~:text=The%20COVID%2D19%20pandemic%20and,(51%20cases%20a%20month). Published 2021. Accessed 10 November 2021.
14. Viner RM, Russell SJ, Croker H, et al. School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet Child & Adolescent Health.* 2020;4(5):397-404.
15. Öğütlü H. Turkey's response to COVID-19 in terms of mental health. *Irish Journal of Psychological Medicine.* 2020;37(3):222-225.
16. Jiao WY, Wang LN, Liu J, et al. Behavioral and emotional disorders in children during the COVID-19 epidemic. *The journal of Pediatrics.* 2020;221:264-266. e261.
17. Chen F, Zheng D, Liu J, Gong Y, Guan Z, Lou D. Depression and anxiety among adolescents during COVID-19: A cross-sectional study. *Brain, behavior, and immunity.* 2020;88:36.
18. Rios-González CM, Palacios JM. Symptoms of anxiety and depression during the outbreak of COVID-19 in Paraguay. 2020.
19. Conger RD, Ge X, Elder Jr GH, Lorenz FO, Simons RL. Economic stress, coercive family process, and developmental problems of adolescents. *Child development.* 1994;65(2):541-561.
20. de Miranda DM, da Silva Athanasio B, Oliveira ACS, Simoes-e-Silva AC. How is COVID-19 pandemic impacting mental health of children and adolescents? *International journal of disaster risk reduction.* 2020;51:101845.
21. McLoyd VC, Jayaratne TE, Ceballo R, Borquez J. Unemployment and work interruption among African American single mothers: Effects on parenting and adolescent socioemotional functioning. *Child development.* 1994;65(2):562-589.
22. Clemens V, Deschamps P, Fegert JM, et al. Potential effects of "social" distancing measures and school lockdown on child and adolescent mental health. In. Vol 29: Springer; 2020:739-742.
23. Cluver L, Lachman JM, Sherr L, et al. Parenting in a time of COVID-19. *Lancet.* 2020;395(10231).
24. Pigaiani Y, Zoccante L, Zocca A, et al. Adolescent lifestyle behaviors, coping strategies and subjective wellbeing during the COVID-19 pandemic: an online student survey. Paper presented at: Healthcare2020.
25. Wang C, Pan R, Wan X, et al. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. *Brain, behavior, and immunity.* 2020;87:40-48.
26. Pierce M, Hope H, Ford T, et al. Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. *The Lancet Psychiatry.* 2020;7(10):883-892.
27. Witt A, Ordóñez A, Martin A, Vitiello B, Fegert JM. Child and adolescent mental health service provision and research during the Covid-19 pandemic: challenges, opportunities, and a call for submissions. *Child and Adolescent Psychiatry and Mental Health.* 2020;14(1):1-4.
28. Crawley E, Loades M, Feder G, Logan S, Redwood S, Macleod J. Wider collateral damage to children in the UK because of the social distancing measures designed to reduce the impact of COVID-19 in adults. *BMJ paediatrics open.* 2020;4(1).

29. Cortese S, Asherson P, Sonuga-Barke E, et al. ADHD management during the COVID-19 pandemic: guidance from the European ADHD Guidelines Group. *The Lancet Child & Adolescent Health.* 2020;4(6):412-414.
30. Vanderloo LM, Carsley S, Aglipay M, Cost KT, Maguire J, Birken CS. Applying harm reduction principles to address screen time in young children amidst the COVID-19 pandemic. *Journal of Developmental & Behavioral Pediatrics.* 2020;41(5):335-336.
31. Folkman S. Stress: appraisal and coping. In: *Encyclopedia of behavioral medicine.* Springer; 2020:2177-2179.
32. Hobfoll SE. Conservation of resources: a new attempt at conceptualizing stress. *American psychologist.* 1989;44(3):513.
33. Lazarus RS. *Stress and emotion: A new synthesis.* Springer publishing company; 2006.
34. Compas BE, Connor-Smith JK, Saltzman H, Thomsen AH, Wadsworth ME. Coping with stress during childhood and adolescence: problems, progress, and potential in theory and research. *Psychological bulletin.* 2001;127(1):87.
35. Lazarus RS, Folkman S. *Stress, appraisal, and coping.* Springer publishing company; 1984.
36. Parker JD, Endler NS. Coping with coping assessment: A critical review. *European Journal of personality.* 1992;6(5):321-344.
37. Stanisławski K. The coping circumplex model: an integrative model of the structure of coping with stress. *Frontiers in psychology.* 2019;10:694.
38. Wood SK, Bhatnagar S. Resilience to the effects of social stress: Evidence from clinical and preclinical studies on the role of coping strategies. *Neurobiology of stress.* 2015;1:164-173.
39. Adhikari Baral I, KC B. Post traumatic stress disorder and coping strategies among adult survivors of earthquake, Nepal. *BMC psychiatry.* 2019;19(1):1-8.
40. Yu H, Li M, Li Z, et al. Coping style, social support and psychological distress in the general Chinese population in the early stages of the COVID-19 epidemic. *BMC Psychiatry.* 2020;20(1):426.
41. Orgilés M, Morales A, Delvecchio E, et al. Coping behaviors and psychological disturbances in youth affected by the COVID-19 health crisis. *Frontiers in Psychology.* 2021;12:565657.
42. Hamilton JL, Nesi J, Choukas-Bradley S. Teens and social media during the COVID-19 pandemic: Staying socially connected while physically distant. 2020.
43. Lambrese JV. Helping children cope with the COVID-19 pandemic. *Cleveland Clinic journal of medicine.* 2020.
44. Barker G. Adolescents, social support and help-seeking behaviour: an international literature review and programme consultation with recommendations for action. 2007.
45. Thornicroft G. Most people with mental illness are not treated. *The Lancet.* 2007.
46. Mohd Noh SN, Jawahir S, Tan YR, Ab Rahim I, Tan EH. The Health-Seeking Behavior among Malaysian Adults in Urban and Rural Areas Who Reported Sickness: Findings from the National Health and Morbidity Survey (NHMS) 2019. *Int J Environ Res Public Health.* 2022;19(6).
47. Suka M, Yamauchi T, Sugimori H. Help-seeking intentions for early signs of mental illness and their associated factors: comparison across four kinds of health problems. *BMC Public Health.* 2016;16(1):301.
48. Liu Y, Zhang J, Lam SP, et al. Help-seeking behaviors for insomnia in Hong Kong Chinese: a community-based study. *Sleep Medicine.* 2016;21:106-113.
49. Naito T, Chin J, Kim TU, Veera S, Jeannette M, Lomiguen CM. Further Reduction in Help-Seeking Behaviors Amidst Additional Barriers to Mental Health Treatment in Asian Populations: A Contemporary Review. *Cureus.* 2020;12(11):e11455.
50. Tambling RR, Hynes KC, D'Aniello C. Are Barriers to Psychotherapy Treatment Seeking Indicators of Social Determinants of Health?: A Critical Review of the Literature. *The American Journal of Family Therapy.* 2022;50(5):443-458.
51. Aguirre Velasco A, Cruz ISS, Billings J, Jimenez M, Rowe S. What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review. *BMC Psychiatry.* 2020;20(1):293.
52. Doll CM, Michel C, Rosen M, Osman N, Schimmelmann BG, Schultze-Lutter F. Predictors of help-seeking behaviour in people with mental health problems: a 3-year prospective community study. *BMC psychiatry.* 2021;21(1):1-11.
53. Kutcher S, Wei Y, Coniglio C. Mental Health Literacy: Past, Present, and Future. *The Canadian Journal of Psychiatry.* 2016;61(3):154-158.
54. Hashim AE, Samikon SA, Nasir NM, Ismail N. Assessing factors influencing performance of Malaysian low-cost public housing in sustainable environment. *Procedia-Social and Behavioral Sciences.* 2012;50:920-927.
55. Goh AT, Yahaya A. Public low-cost housing in Malaysia: Case studies on PPR low-cost flats in Kuala Lumpur. *Journal of Design and Built Environment.* 2011;8(1).
56. Kementerian Kesihatan Malaysia. SOP Perintah Kawalan Pergerakan (PKP). https://covid-19.moh.gov.my/faqsop/sop-perintah-kawalan-pergerakan-pkp. Published 2021. Accessed.
57. Kementerian Kesihatan Malaysia. SOP Perintah Kawalan Pergerakan Bersyarat (PKPB). https://covid-19.moh.gov.my/faqsop/sop-perintah-kawalan-pergerakan-bersyarat-pkpb-cmco. Published 2021. Accessed.
58. Kementerian Kesihatan Malaysia. SOP Perintah Kawalan Pergerakan Pemulihan (PKPP). https://covid-19.moh.gov.my/faqsop/sop-pkp-pemulihan. Published 2021. Accessed.
59. Kementerian Kesihatan Malaysia. Pelan Pemulihan Negara (PPN). https://covid-19.moh.gov.my/faqsop/pelan-pemulihan-negara. Published 2021. Accessed.
60. Kementerian Kesihatan Malaysia. Pelan Pemulihan Negara (PPN) – SOP Fasa 1. https://covid-19.moh.gov.my/faqsop/pelan-pemulihan-negara-sop-fasa-satu. Published 2021. Accessed.
61. Kementerian Kesihatan Malaysia. Pelan Pemulihan Negara (PPN) – SOP Fasa 2. https://covid-19.moh.gov.my/faqsop/pelan-pemulihan-negara-sop-fasa-dua. Published 2021. Accessed.
62. Kementerian Kesihatan Malaysia. Pelan Pemulihan Negara (PPN) – SOP Fasa 3. https://covid-19.moh.gov.my/faqsop/pelan-pemulihan-negara-sop-fasa-tiga. Published 2021. Accessed.
63. Kementerian Kesihatan Malaysia. Pelan Pemulihan Negara (PPN) – SOP Fasa 4. https://covid-19.moh.gov.my/faqsop/pelan-pemulihan-negara-sop-fasa-empat. Published 2021. Accessed.

64. Kementerian Kesihatan Malaysia. SOP Perintah Kawalan Pergerakan Diperketatkan (PKPD). https://covid-19.moh.gov.my/faqsop/sop-perintah-kawalan-pergerakan-diperketatkan-pkpd-emco. Published 2022. Accessed.
65. Majlis Keselamatan Negara. Fasa Peralihan ke Endemik. https://www.mkn.gov.my/web/ms/fasa-peralihan-ke-endemik/. Published 2022. Accessed.
66. Jones EA, Mitra AK, Bhuiyan AR. Impact of COVID-19 on mental health in adolescents: A systematic review. *International journal of environmental research and public health.* 2021;18(5):2470.
67. UNICEF and UNFPA. *Families on the Edge: Issue 4: Two-steps forward, one step back: The new normal for Malaysia's urban poor?* Putrajaya May 2021 2021.
68. Panchal U, Salazar de Pablo G, Franco M, et al. The impact of COVID-19 lockdown on child and adolescent mental health: systematic review. *European child & adolescent psychiatry.* 2021:1-27.
69. Drapeau A, Marchand A, Beaulieu-Prévost D. Epidemiology of psychological distress. *Mental illnesses-understanding, prediction and control.* 2012;69(2):105-106.
70. Kumar KS, Srivastava S, Paswan S, Dutta AS. Depression-symptoms, causes, medications and therapies. *The Pharma Innovation.* 2012;1(3, Part A):37.
71. Knight LK, Depue BE. New Frontiers in Anxiety Research: The Translational Potential of the Bed Nucleus of the Stria Terminalis. *Front Psychiatry.* 2019;10:510.
72. Haque A. Mental health concepts and program development in Malaysia. *Journal of Mental Health.* 2005;14(2):183-195.
73. Ministry of Heath. National Strategic Plan for Mental Health 2020 - 2025. In: Division DC, ed. Putrajaya2020.
74. Institute for Public Health. *National Health and Morbidity Survey (NHMS) 2019: Non-communicable diseases, healthcare demand, and health literacy—Key Findings.* Selangor: Ministry of Health Malaysia;2020.
75. Kementerian Kesihatan Malaysia. Garis Panduan Pelaksanaan Program Minda Sihat: Menangani Stres Dalam Kalangan Murid Di Sekolah. In. Putrajaya: Bahagian Kawalan Penyakit; 2013.
76. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001;16(9):606-613.
77. Spitzer RL, Kroenke K, Williams JB, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med.* 2006;166(10):1092-1097.
78. Sameeha MJ, Shahimi A, Karim NA. Motivators and barriers towards fruits and vegetables intake among low-income adults in Gombak, Malaysia: A qualitative study. *Buletin FSK.* 2018;2(2):88-99.
79. Ismail N, Karim MSA, Karim R, Adzahan NM, Abd Halim N. Fruits and vegetables consumption factor based on different culture in selangor state. *Academic Journal of Interdisciplinary Studies.* 2013;2(8):524.
80. Santomauro DF, Mantilla Herrera AM, Shadid J, et al. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet.* 2021;398(10312):1700-1712.
81. Organization WH. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide. https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide. Published 2022. Accessed 7 January 2023.
82. Organization WH. Mental health and COVID-19: early evidence of the pandemic's impact: scientific brief, 2 March 2022. In: *Mental health and COVID-19: early evidence of the pandemic's impact: scientific brief, 2 March 2022.*2022.
83. Qin Z, Shi L, Xue Y, et al. Prevalence and risk factors associated with self-reported psychological distress among children and adolescents during the COVID-19 pandemic in China. *JAMA network open.* 2021;4(1):e2035487-e2035487.
84. Lukoševičiūtė J, Šmigelskas K. Mental Health during COVID-19 Pandemic: Qualitative Perceptions among Lithuanian Adolescents. *International Journal of Environmental Research and Public Health.* 2022;19(12):7086.
85. Crescentini C, Feruglio S, Matiz A, et al. Stuck outside and inside: An exploratory study on the effects of the COVID-19 outbreak on Italian parents and children's internalizing symptoms. *Frontiers in psychology.* 2020;11:586074.
86. Racine N, McArthur BA, Cooke JE, Eirich R, Zhu J, Madigan S. Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis. *JAMA pediatrics.* 2021;175(11):1142-1150.
87. Geoffroy M-C, Bouchard S, Per M, et al. Prevalence of Suicidal Ideation and Behaviors in Children Aged 12 Years and Under: A Systematic Review and Meta-Analysis. *Available at SSRN 4011899.* 2022.
88. Michaud P-A, Michaud L, Mazur A, Hadjipanayis A, Kapp C, Ambresin A-E. The impact of covid on adolescent mental health, self-harm and suicide: how can primary care provider respond? A position paper of the European Academy of Pediatrics. *Frontiers in pediatrics.* 2022:230.
89. Hermosillo-de-la-Torre AE, Arteaga-de-Luna SM, Acevedo-Rojas DL, et al. Psychosocial correlates of suicidal behavior among adolescents under confinement due to the COVID-19 pandemic in Aguascalientes, Mexico: A cross-sectional population survey. *International journal of environmental research and public health.* 2021;18(9):4977.
90. Lawrence D, Johnson S, Hafekost J, et al. The mental health of children and adolescents: report on the second Australian child and adolescent survey of mental health and wellbeing. 2015.
91. Albert PR. Why is depression more prevalent in women? *J Psychiatry Neurosci.* 2015;40(4):219-221.
92. Qin Z, Shi L, Xue Y, et al. Prevalence and Risk Factors Associated With Self-reported Psychological Distress Among Children and Adolescents During the COVID-19 Pandemic in China. *JAMA Netw Open.* 2021;4(1):e2035487.
93. Simantov E, Schoen C, Klein JD. Health-compromising behaviors: why do adolescents smoke or drink?: identifying underlying risk and protective factors. *Arch Pediatr Adolesc Med.* 2000;154(10):1025-1033.
94. Goodman E, Capitman J. Depressive symptoms and cigarette smoking among teens. *Pediatrics.* 2000;106(4):748-755.
95. Esmaeelzadeh S, Moraros J, Thorpe L, Bird Y. The association between depression, anxiety and substance use among Canadian post-secondary students. *Neuropsychiatr Dis Treat.* 2018;14:3241-3251.
96. Boys A, Farrell M, Taylor C, et al. Psychiatric morbidity and substance use in young people aged 13–15 years: results from the Child and Adolescent Survey of Mental Health. *The British Journal of Psychiatry.* 2003;182(6):509-517.

97. Hajloo N, Sadeghi H, Babayi Nadinloei K, Habibi Z. The Role of Meta-cognition in Students' Addiction Potential Tendency. *Int J High Risk Behav Addict.* 2014;3(1):e9355.

98. Bohman H, Låftman SB, Päären A, Jonsson U. Parental separation in childhood as a risk factor for depression in adulthood: a community-based study of adolescents screened for depression and followed up after 15 years. *BMC Psychiatry.* 2017;17(1):117.

99. Liu S, Wing YK, Hao Y, Li W, Zhang J, Zhang B. The associations of long-time mobile phone use with sleep disturbances and mental distress in technical college students: a prospective cohort study. *Sleep.* 2018;42(2).

100. Ikeda K, Nakamura K. Association between mobile phone use and depressed mood in Japanese adolescents: a cross-sectional study. *Environmental Health and Preventive Medicine.* 2014;19(3):187-193.

101. Calpbinici P, Tas Arslan F. Virtual behaviors affecting adolescent mental health: The usage of Internet and mobile phone and cyberbullying. *Journal of Child and Adolescent Psychiatric Nursing.* 2019;32(3):139-148.

102. George MJ, Odgers CL. Seven Fears and the Science of How Mobile Technologies May Be Influencing Adolescents in the Digital Age. *Perspectives on Psychological Science.* 2015;10(6):832-851.

103. Yuan H. Effects of Social Media on Teenagers' Mental Health. Paper presented at: 2022 International Conference on Social Sciences and Humanities and Arts (SSHA 2022)2022.

104. Berryman C, Ferguson CJ, Negy C. Social Media Use and Mental Health among Young Adults. *Psychiatr Q.* 2018;89(2):307-314.

105. Chen IH, Chen CY, Pakpour AH, Griffiths MD, Lin CY. Internet-Related Behaviors and Psychological Distress Among Schoolchildren During COVID-19 School Suspension. *J Am Acad Child Adolesc Psychiatry.* 2020;59(10):1099-1102.e1091.

106. Dey BK, Bairagi A, Kabir SMS, Shahrier MA. Parenting stress and depression in children of working mother. *The Citagong University Journal of Biological Science vol.* 2013;7:151-165.

107. Singh A, Kumar H, Kumari S. Mental health of adolescents of working and non-working mothers. *The International Journal of Indian Psychology.* 2020;8(3):961-966.

108. Rajgariah R, Malenahalli Chandrashekarappa S, Venkatesh Babu DK, Gopi A, Murthy Mysore Ramaiha N, Kumar J. Parenting stress and coping strategies adopted among working and non-working mothers and its association with socio-demographic variables: A cross-sectional study. *Clinical Epidemiology and Global Health.* 2021;9:191-195.

109. Council NR. and Institute of medicine (US) committee on depression, parenting practices, and the healthy development of children; England MJ, Sim LJ, editors. Depression in parents, parenting, and children: opportunities to improve identification, treatment, and prevention. *Depression in parents, parenting, and children: Opportunities to improve identification, treatment, and prevention.* 2009.

110. Huang KY, Abura G, Theise R, Nakigudde J. Parental Depression and Associations with Parenting and Children's Physical and Mental Health in a Sub-Saharan African Setting. *Child Psychiatry Hum Dev.* 2017;48(4):517-527.

111. Elfirdoussi S, Lachgar M, Kabaili H, Rochdi A, Goujdami D, El Firdoussi L. Assessing distance learning in higher education during the COVID-19 pandemic. *Education Research International.* 2020;2020.

112. Onyema EM, Eucheria NC, Obafemi FA, et al. Impact of Coronavirus pandemic on education. *Journal of Education and Practice.* 2020;11(13):108-121.

113. Imran N, Zeshan M, Pervaiz Z. Mental health considerations for children & adolescents in COVID-19 Pandemic. *Pakistan journal of medical sciences.* 2020;36(COVID19-S4):S67.

114. O'Sullivan K, Clark S, McGrane A, et al. A qualitative study of child and adolescent mental health during the COVID-19 pandemic in Ireland. *International journal of environmental research and public health.* 2021;18(3):1062.

115. Ferguson KN, Coen SE, Tobin D, Martin G, Seabrook JA, Gilliland JA. The mental well-being and coping strategies of Canadian adolescents during the COVID-19 pandemic: a qualitative, cross-sectional study. *Canadian Medical Association Open Access Journal.* 2021;9(4):E1013-E1020.

116. Postigo-Zegarra S, Julián M, Schoeps K, Montoya-Castilla I. Psychological adjustment of Spanish adolescents and their parents during COVID-19 lockdown: A mixed method approach. *Plos one.* 2021;16(7):e0255149.

117. Koçak O, Koçak ÖE, Younis MZ. The psychological consequences of COVID-19 fear and the moderator effects of individuals' underlying illness and witnessing infected friends and family. *International journal of environmental research and public health.* 2021;18(4):1836.

118. Othman IW, Mokhtar S, Esa MS. The Stages Of National Education System Operation: Issues, Rationale, And Challenges For The Ministry Of Education Malaysia (MOE) In Facing Post Pandemic Norms Of COVID-19. *International Journal Of Education, Psychology And Counselling (IJEPC).* 2022;7(47):616-638.

119. Wahed ADA, Khidir NSA. Challenges and Emotional Well-Being of Students in Facing New Learning Norms. 2021.

120. Dhawan S. Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems.* 2020;49(1):5-22.

121. Biwer F, Wiradhany W, Oude Egbrink M, et al. Changes and adaptations: How university students self-regulate their online learning during the COVID-19 pandemic. *Frontiers in psychology.* 2021;12:642593.

122. Ahmadon F, Ghazalli HIM, Rusli HM. Studying during pandemic: A review of issues from online learning in the middle of COVID-19. Paper presented at: 2020 6th International Conference on Interactive Digital Media (ICIDM)2020.

123. Hermanto YB, Srimulyani VA. The challenges of online learning during the covid-19 pandemic. *Jurnal Pendidikan Dan Pengajaran.* 2021;54(1):46-57.

124. Ela MZ, Shohel TA, Khan L, Jahan N, Hossain MT, Islam MN. Prolonged lockdown and academic uncertainties in Bangladesh: A qualitative investigation during the COVID-19 pandemic. *Heliyon.* 2021;7(2):e06263.

125. Karpman M, Zuckerman S, Gonzalez D, Kenney GM. The COVID-19 pandemic is straining families' abilities to afford basic needs. *Washington, DC: Urban Institute.* 2020;500.

126. Horiuchi S, Shinohara R, Otawa S, et al. Caregivers' mental distress and child health during the COVID-19 outbreak in Japan. *PloS one.* 2020;15(12):e0243702.

127. UNICEF Malaysia, DM Analytics. Children without: A study of urban child poverty and deprivation in low-cost flats in Kuala Lumpur. *The United Nations Childrens' Fund, Malaysia.* 2018:2019-2004.

128. Giebel C, Ivan B, Burger P, Ddumba I. Impact of COVID-19 public health restrictions on older people in Uganda:"hunger is really one of those problems brought by this COVID". *International psychogeriatrics.* 2022;34(9):805-812.

129. Cortés-García L, Hernandez Ortiz J, Asim N, et al. COVID-19 conversations: A qualitative study of majority Hispanic/Latinx youth experiences during early stages of the pandemic. Paper presented at: Child & Youth Care Forum2022.

130. Giannakopoulos G, Mylona S, Zisimopoulou A, Belivanaki M, Charitaki S, Kolaitis G. Perceptions, emotional reactions and needs of adolescent psychiatric inpatients during the COVID-19 pandemic: A qualitative analysis of in-depth interviews. *BMC psychiatry.* 2021;21(1):1-10.

131. Zaeske LM, Harris TP, Williams A, Scheibel G, Long H, Kerr BA. Creative adolescent experiences of education and mental health during COVID 19: A qualitative study. *Psychology in the Schools.* 2022.

132. Ishak NH, Ariffin ARM, Sulaiman R, Zailani MNM. Rethinking space design standards toward quality affordable housing in Malaysia. Paper presented at: MATEC Web of Conferences2016.

133. Miconi D, Dervishi E, Wiium N, Johnson Lafleur J, Ibrahimi S, Rousseau C. Egyptian and Roma adolescents' perspectives on their developmental assets in Albania during the COVID 19 pandemic. *Journal of Research on Adolescence.* 2021;31(3):576-594.

134. Gittings L, Toska E, Medley S, et al. 'Now my life is stuck!': Experiences of adolescents and young people during COVID-19 lockdown in South Africa. *Global Public Health.* 2021;16(6):947-963.

135. Idoiaga N, Berasategi N, Eiguren A, Picaza M. Exploring children's social and emotional representations of the Covid-19 pandemic. *Frontiers in Psychology.* 2020;11:1952.

136. Scott SR, Rivera KM, Rushing E, Manczak EM, Rozek CS, Doom JR. "I Hate This": A Qualitative Analysis of Adolescents' Self-Reported Challenges During the COVID-19 Pandemic. *Journal of Adolescent Health.* 2021;68(2):262-269.

137. Zrnić Novaković I, Lueger-Schuster B, Verginer L, et al. You can't do anything about it, but you can make the best of it: a qualitative analysis of pandemic-related experiences in six European countries. *European journal of psychotraumatology.* 2022;13(1):2065431.

138. Dewa LH, Crandell C, Choong E, et al. CCopeY: a mixed-methods coproduced study on the mental health status and coping strategies of young people during COVID-19 UK lockdown. *Journal of Adolescent Health.* 2021;68(4):666-675.

139. Tang X, Wong DFK, Xu H, Hou L. Barriers to a classroom based universal prevention program for depressive symptoms in Chinese adolescents: A qualitative study. *Health & Social Care in the Community.* 2022;30(5):e2226-e2235.

140. Oud M, De Winter L, Vermeulen-Smit E, et al. Effectiveness of CBT for children and adolescents with depression: A systematic review and meta-regression analysis. *European psychiatry.* 2019;57:33-45.

141. Langer ÁI, Wardenaar K, Wigman JT, Ulloa JL, Núñez D. A latent profile analysis of psychotic experiences, non-psychotic symptoms, suicidal ideation and underlying mechanisms in a sample of adolescents from the general population. *Frontiers in psychiatry.* 2022;13.

142. DeVille DC, Whalen D, Breslin FJ, et al. Prevalence and Family-Related Factors Associated With Suicidal Ideation, Suicide Attempts, and Self-injury in Children Aged 9 to 10 Years. *JAMA Netw Open.* 2020;3(2):e1920956.

143. Lim K-S, Wong CH, McIntyre RS, et al. Global lifetime and 12-month prevalence of suicidal behavior, deliberate self-harm and non-suicidal self-injury in children and adolescents between 1989 and 2018: a meta-analysis. *International journal of environmental research and public health.* 2019;16(22):4581.

144. De Luca L, Giletta M, Nocentini A, Menesini E. Non-suicidal self-injury in adolescence: the role of pre-existing vulnerabilities and COVID-19-related stress. *Journal of youth and adolescence.* 2022;51(12):2383-2395.

145. Cambron C. E-cigarette use is associated with increased psychological distress among youth: a pooled cross-sectional analysis of state-level data from 2019 and 2021. *International journal of environmental research and public health.* 2022;19(18):11726.

146. Temple JR, Baumler E, Wood L, Guillot-Wright S, Torres E, Thiel M. The impact of the COVID-19 pandemic on adolescent mental health and substance use. *Journal of Adolescent Health.* 2022;71(3):277-284.

147. Thorisdottir IE, Asgeirsdottir BB, Kristjansson AL, et al. Depressive symptoms, mental wellbeing, and substance use among adolescents before and during the COVID-19 pandemic in Iceland: a longitudinal, population-based study. *The Lancet Psychiatry.* 2021;8(8):663-672.

148. Batchelor S, Stoyanov S, Pirkis J, Kõlves K. Use of kids helpline by children and young people in Australia during the COVID-19 pandemic. *Journal of Adolescent Health.* 2021;68(6):1067-1074.

149. Icenogle G, Steinberg L, Duell N, et al. Adolescents' cognitive capacity reaches adult levels prior to their psychosocial maturity: Evidence for a "maturity gap" in a multinational, cross-sectional sample. *Law Hum Behav.* 2019;43(1):69-85.

150. Hunt J, Eisenberg D. Mental Health Problems and Help-Seeking Behavior Among College Students. *Journal of Adolescent Health.* 2010;46(1):3-10.

151. Geulayov G, Borschmann R, Mansfield KL, Hawton K, Moran P, Fazel M. Utilization and acceptability of formal and informal support for adolescents following self-harm before and during the first COVID-19 lockdown: Results from a large-scale english schools survey. *Frontiers in psychiatry.* 2022;13.

152. Okyere E, Salusalu M, Goundar R, Marfoh K. What do university students say about online learning and the COVID-19 pandemic in central Fiji? A qualitative study. *Plos one.* 2022;17(8):e0273187.

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Parental Consent Form

Kajian Kesihatan Minda dalam Kalangan Kanak-Kanak dan Remaja di Projek Perumahan Rakyat Kuala Lumpur dan Selangor semasa Pandemik COVID-19
Contributing Factors to Psychological Distress, Coping Strategies and Help-Seeking Behaviours among Children Living in Program Perumahan Rakyat (PPR) during COVID-19 Pandemic

SARINGAN

BORANG PERSETUJUAN/ KEIZINAN PESERTA
(Untuk penjaga/ibubapa)

Penyelidik:

1. Siti Nur Farhana binti Harun
2. Noorlaile binti Jasman
3. Dr. Normawati binti Ahmad
4. Norrafizah binti Jaafar
5. Mohd. Hairmanshah bin Mohd Shah
6. Aimi Nadiah binti Mohamad Norzlen
7. Siti Nadiah Busyra binti Mat Nadzir
8. Dr. Shubash Shander A/L Ganapathy
9. Dr Ponnusamy Subramaniam
10. Hyung Joon Kim
11. Elizabeth Wong
12. Jessica Sercombe

1. Pengenalan

Penyertaan anak/jagaan anda dalam penyelidikan ini adalah secara sukarela. Anak/jagaan anda juga mempunyai hak untuk tidak menjawab mana-mana soalan yang anda tidak mahu jawab dan menarik diri daripada penyelidikan ini pada bila-bila masa sahaja. Jika anak/jagaan anda menarik diri, segala maklumat yang telah diperolehi sebelum anak/jagaan anda menarik diri akan akan disimpan dan digunakan sebagai sebahagian daripada analisis dalam penyelidikan ini. Penyelidikan ini telah mendapat kelulusan Jawatankuasa Etika dan Penyelidikan Perubatan, Kementerian Kesihatan Malaysia.

2. Apakah tujuan penyelidikan ini dilakukan?

Penyelidikan ini dijalankan bagi meneroka faktor penyumbang kepada tekanan psikologi, strategi menangani tekanan dan tingkah laku mencari bantuan dalam kalangan kanak-kanak dan remaja yang tinggal di Program Perumahan Rakyat (PPR) semasa pandemik COVID-19. Penyelidikan ini dijalankan bagi mengetahui kesan pandemik terhadap kesihatan mental dan kesejahteraan kanak-kanak dan bagaimana cabaran dalam konteks keluarga, psikososial dan keadaan persekitaran dapat mempengaruhi kesihatan dan kesejahteraan mental mereka. Pengumpulan data kajian akan dijalankan pada April hingga September 2022 dengan jumlah anggaran penglibatan 936 peserta. Penyertaan anak anda adalah sukarela.

3. Apakah prosedur yang akan anak/jagaan saya terima?

Anak anda akan diminta mengisi borang saringan minda sihat (PHQ-9) dan soalan (GAD-7) dan masa yang dianggarkan untuk menjawab soalan adalah selama 10 minit. Maklumat yang akan dikumpulkan di sini akan digunakan untuk tujuan penyelidikan sahaja. Anda akan dimaklumkan tentang keputusan saringan anak/jagaan anda. Anak anda mungkin dijemput untuk sesi temu bual sekiranya keputusan saringan anak anda di tahap:

Saringan Kesihatan Pesakit (PHQ-9)

- Sederhana
- Sederhana Teruk
- Teruk

Saringan Keresahan Menyeluruh (GAD-7)

- Keresahan sederhana
- Keresahan teruk

4. Apakah tanggungjawab anak/jagaan saya sewaktu menyertai penyelidikan ini?

Amat penting anak/jagaan anda menjawab semua soalan yang ditanyakan dengan jujur dan lengkap.

5. Apakah risiko dan kesan-kesan sampingan menyertai penyelidikan ini?

Terdapat risiko kecil yang mungkin akan dialami oleh anak/jagaan anda dalam penyelidikan ini yang dapat menyebabkan atau menambahkan lagi tekanan yang ada dalam kalangan anak-anak yang terlibat dalam kajian ini, Walaupun kemungkinan kejadian ini sangat rendah, anda masih harus mengetahui kemungkinannya. Kami akan berusaha mengurangkan kemungkinan kejadian ini berlaku. Oleh itu, pegawai psikologi terlatih akan turut serta dalam pelaksanaan penyelidikan ini. Perlindungan kesihatan mental dan keadaan psikologi anak anda sepanjang kajian ini akan diberi keutamaan dan pegawai psikologi akan mengenal pasti mereka yang berisiko bagi menjalani pengurusan yang bersesuaian sekiranya difikirkan perlu oleh pakar.

Sekiranya anak/jagaan anda didapati menunjukkan tekanan psikologi berdasarkan penilaian dalam saringan, anak/ jagaan anda akan dirujuk untuk sokongan psikologi kepada klinik kesihatan selepas lengkap penyertaan dalam kajian. Anda akan diberi penerangan mengenai tekanan minda yang dihadapi oleh anak/jagaan dan keperluan untuk rawatan dan pengurusan. Surat rujukan akan diberikan kepada anda untuk membawa anak anda mendapatkan sokongan psikologi di klinik kesihatan berhampiran.

6. Apakah manfaatnya anak/jagaan saya menyertai kajian ini?

Kajian ini dapat membantu dalam menentukan status kesihatan mental kanak-kanak yang tinggal di Program Perumahan Rakyat (PPR). Kementerian Kesihatan Malaysia dan pihak yang berkaitan dapat membangunkan intervensi yang bersesuaian bagi membantu kanak-kanak ini dalam menangani masalah yang dihadapi. Segala maklumat yang diperolehi daripada penyelidikan ini akan dapat membantu menambah baik perkhidmatan kesihatan dalam kalangan kanak-kanak dan remaja, khususnya.

7. Adakah maklumat anak/jagaan saya akan dirahsiakan?

Segala maklumat anak/jagaan anda yang diperolehi dalam penyelidikan ini akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/ atau undang- undang yang berkenaan. Sekiranya hasil penyelidikan ini diterbitkan atau dibentangkan kepada orang ramai, identiti anak/jagaan anda tidak akan didedahkan tanpa kebenaran anda terlebih dahulu.

Hasil dan penemuan daripada anak anda akan dirahsiakan dan anak anda bebas untuk berkongsi jawapan mereka dengan anda. Walau bagaimanapun, sekiranya terdapat situasi yang berpotensi membahayakan anak anda, maklumat akan disampaikan kepada pihak yang berkenaan (contoh: klinik kesihatan/hospital) untuk tindakan selanjutnya dengan tujuan melindungi anak anda dari bahaya.

Pihak-pihak tertentu seperti individu yang terlibat dalam penyelidikan ini, juruaudit dan jurupantau yang terlatih, pihak berkuasa kerajaan atau undang-undang, boleh memeriksa maklumat atau data kajian jika diperlukan.

8. Siapakah yang perlu saya hubungi sekiranya saya mempunyai sebarang pertanyaan?

Anda boleh menghubungi Penyelidik Utama kajian ini, Pn. Siti Nur Farhana Harun di talian +603-33627600/8611 sekiranya anda mempunyai sebarang pertanyaan mengenai penyelidikan ini. Jika anda mempunyai sebarang pertanyaan berkaitan dengan hak-hak anda sebagai peserta dalam penyelidikan ini, sila hubungi: Setiausaha, Jawatankuasa Etika & Penyelidikan Perubatan, Kementerian Kesihatan Malaysia, melalui talian telefon 03-33628407/8205/8888.

BORANG PERSETUJUAN/ KEIZINAN PESERTA
(Untuk penjaga/ibubapa)

Dengan menandatangani di bawah, saya mengesahkan bahawa:

- Saya telah diberi maklumat tentang penyelidikan di atas secara lisan dan bertulis dan saya telah membaca dan memahami segala maklumat yang diberikan dalam risalah ini.
- Saya telah diberikan masa yang secukupnya untuk mempertimbangkan penyertaan anak dibawah jagaan saya dalam penyelidikan ini dan telah diberi peluang untuk bertanyakan soalan dan semua persoalan saya telah dijawab dengan sempurna dan memuaskan.
- Saya juga faham bahawa penyertaan adalah secara sukarela dan pada bila-bila masa anak dibawah jagaan saya bebas menarik diri daripada penyelidikan ini tanpa harus memberi sebarang alasan dan ianya sama sekali tidak akan menjejaskan rawatan perubatan pada masa akan datang. Saya juga memahami tentang risiko dan manfaat penyelidikan ini dan saya secara sukarela memberi persetujuan untuk anak dibawah jagaan saya menyertai penyelidikan ini di bawah syarat-syarat yang telah dinyatakan di atas. Saya faham saya harus mematuhi nasihat dan arahan yang berkaitan dengan penyertaan saya dalam penyelidikan ini daripada penyelidik kajian.
- Saya faham bahawa kakitangan penyelidikan, pemantau dan juruaudit terlatih, pihak penaja atau gabungannya, dan pihak berkuasa kerajaan atau undang-undang, mempunyai akses langsung dan boleh menyemak bagi memastikan penyelidikan ini dijalankan dengan betul dan data direkodkan dengan betul. Segala maklumat dan data peribadi akan dianggap sebagai SULIT.
- Saya akan menerima satu salinan 'Risalah Maklumat Peserta dan Borang Persetujuan atau Keizinan Peserta' yang telah lengkap dengan tarikh dan tandatangan untuk dibawa pulang ke rumah.
- Oleh itu,

Saya ____ (ibubapa/penjaga)

No. IC ______________________________ ***bersetuju/tidak bersetuju untuk membenarkan**

(nama responden)
____,

No. IC, ______________________________ untuk menyertai penyedidikan seperti yang tertera diatas.

Tandatangan : ____________________ No. K/P : ____________________

Nama : ____________________ Tarikh : ____________________

Penyelidik yang mengendalikan proses menandatangani borang keizinan:

Tandatangan : ____________________ No. K/P : ____________________

Nama : ____________________ Tarikh : ____________________

Assent Forms

Kajian Kesihatan Minda dalam Kalangan Kanak-Kanak dan Remaja di Projek Perumahan Rakyat Kuala Lumpur dan Selangor semasa Pandemik COVID-19
Contributing Factors to Psychological Distress, Coping Strategies and Help-Seeking Behaviours among Children Living in Program Perumahan Rakyat (PPR) during COVID-19 Pandemic

SARINGAN

RISALAH MAKLUMAT RESPONDEN
KANAK-KANAK 13 – 17 TAHUN

Penyelidik:
1. Siti Nur Farhana binti Harun
2. Noorlaile binti Jasman
3. Dr. Normawati binti Ahmad
4. Norrafizah binti Jaafar
5. Mohd. Hairmanshah bin Mohd Shah
6. Aimi Nadiah binti Mohamad Norzlen
7. Siti Nadiah Busyra binti Mat Nadzir
8. Dr. Shubash Shander A/L Ganapathy
9. Dr Ponnusamy Subramaniam
10. Hyung Joon Kim
11. Elizabeth Wong
12. Jessica Sercombe

1. Pengenalan
Penyertaan adik dalam penyelidikan ini adalah secara sukarela. Adik mempunyai hak untuk tidak menjawab mana-mana soalan yang adik tidak mahu jawab dan menarik diri daripada penyelidikan ini pada bila-bila masa sahaja. Jika adik menarik diri, segala maklumat yang telah diperolehi sebelum adik menarik diri akan disimpan dan digunakan sebagai sebahagian daripada analisis dalam penyelidikan ini. Penyelidikan ini telah mendapat kelulusan Jawatankuasa Etika dan Penyelidikan Perubatan, Kementerian Kesihatan Malaysia.

2. Apakah tujuan penyelidikan ini dilakukan?
Penyelidikan ini diperlukan untuk meneroka sebab adik mengalami tekanan perasaan, cara adik menanganinya dan adakah adik cuba mendapatkan bantuan.Pengumpulan data kajian akan dijalankan pada April hingga September 2022 dengan jumlah anggaran penglibatan 936 peserta.Penyertaan adik adalah sukarela.

3. Apakah prosedur yang akan saya terima?
Adik akan diminta mengisi borang saringan minda sihat (PHQ-9) dan soalan (GAD-7) dan masa yang dianggarkan untuk menjawab soalan adalah selama 10 minit. Maklumat yang akan dikumpulkan di sini akan digunakan untuk penyelidikan sahaja. Adik akan dimaklumkan tentang keputusan saringan adik. Adik mungkin dijemput untuk sesi temu bual sekiranya keputusan saringan di tahap:

Saringan Kesihatan Pesakit (PHQ-9)
- Sederhana
- Sederhana Teruk
- Teruk

Saringan Keresahan Menyeluruh (GAD-7)
- Keresahan sederhana
- Keresahan teruk

4. Apakah tanggungjawab saya sewaktu menyertai penyelidikan ini?
Amat penting untuk adik menjawab semua soalan yang ditanyakan dengan jujur dan lengkap.

5. Apakah risiko dan kesan-kesan sampingan menyertai penyelidikan ini?
Adik mungkin mengalami kebarangkalian berasa tertekan semasa menjawab ujian saringan. Kami akan berusaha mengurangkan kemungkinan kejadian ini berlaku. Oleh itu, pegawai psikologi terlatih akan turut serta dalam kajian ini. Perlindungan kesihatan minda dan keadaan psikologi adik sepanjang kajian ini akan diberi keutamaan dan pegawai psikologi akan mengenal pasti mereka yang berisiko bagi menjalani pengurusan yang bersesuaian sekiranya difikirkan perlu oleh pakar.

Sekiranya adik didapati menunjukkan tekanan psikologi berdasarkan penilaian dalam saringan, adik akan dirujuk untuk sokongan psikologi kepada klinik kesihatan selepas lengkap penyertaan dalam kajian.Ibu bapa adik akan diberi penerangan mengenai tekanan psikologi yang dihadapi oleh adik dan keperluan untuk rawatan dan pengurusan. Surat rujukan akan diberikan kepada ibu bapa/penjaga adik untuk membawa adik mendapatkan sokongan psikologi di klinik kesihatan berhampiran.

6. **Apakah manfaatnya saya menyertai kajian ini?**
Kajian ini dapat membantu dalam menentukan status kesihatan minda kanak-kanak yang tinggal di Program Perumahan Rakyat (PPR). Kementerian Kesihatan Malaysia dan pihak yang berkaitan dapat membangunkan intervensi yang bersesuaian bagi membantu kanak- kanak ini dalam menangani masalah yang dihadapi. Segala maklumat yang diperolehi daripada penyelidikan ini akan dapat membantu menambah baik perkhidmatan kesihatan dalam kalangan kanak-kanak dan remaja, khususnya.

7. **Adakah maklumat saya akan dirahsiakan?**
Segala maklumat adik yang diperolehi dalam penyelidikan ini akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/ atau undang- undang yang berkenaan. Sekiranya hasil penyelidikan ini diterbitkan atau dibentangkan kepada orang ramai, identiti adik tidak akan didedahkan tanpa kebenaran adik terlebih dahulu.

Hasil dan penemuan daripada adik akan dirahsiakan dan adik bebas untuk berkongsi jawapan adik dengan ibu bapa. Walau bagaimanapun, sekiranya terdapat situasi yang berpotensi membahayakan adik, maklumat akan disampaikan kepada pihak yang berkenaan (contoh: klinik kesihatan/hospital) untuk tindakan selanjutnya dengan tujuan melindungi adik dari bahaya.

Pihak-pihak tertentu seperti individu yang terlibat dalam penyelidikan ini, juruaudit dan jurupantau yang terlatih, pihak berkuasa kerajaan atau undang-undang, boleh memeriksa maklumat atau data kajian jika diperlukan

8. **Siapakah yang perlu saya hubungi sekiranya saya mempunyai sebarang pertanyaan?**
Adik boleh menghubungi Penyelidik Utama kajian ini, Pn. Siti Nur Farhana Harun di talian +603-33627600/8611 sekiranya adik mempunyai sebarang pertanyaan mengenai penyelidikan ini. Jika adik mempunyai sebarang pertanyaan berkaitan dengan hak-hak adik sebagai peserta dalam penyelidikan ini, sila hubungi: Setiausaha, Jawatankuasa Etika & Penyelidikan Perubatan, Kementerian Kesihatan Malaysia, melalui talian telefon 03-33628407/8205/8888.

Nama Peserta : ______________________________

No MyKid Peserta : ______________________________

Nama Penyelidik : ______________________________

No IC Penyelidik : ______________________________

Tandatangan Penyelidik : ______________________________

______________________ ______________________
Tarikh ***Masa***

Kajian Kesihatan Minda dalam Kalangan Kanak-Kanak dan Remaja di Projek Perumahan Rakyat Kuala Lumpur dan Selangor semasa Pandemik COVID-19

Contributing Factors to Psychological Distress, Coping Strategies and Help-Seeking Behaviours among Children Living in Program Perumahan Rakyat (PPR) during COVID-19 Pandemic

SARINGAN

BORANG PERSETUJUAN UNTUK MENYERTAI PENYELIDIKAN (KANAK-KANAK 7-12 TAHUN)

Apakah kajian penyelidikan?

Kajian penyelidikan membantu kita mempelajari perkara baharu. Kita boleh menguji idea baru. Pertama sekali, kita bertanyakan soalan. Kemudian kita cuba untuk mencari jawapan.

Kertas ini bercakap tentang penyelidikan kami dan pilihan yang adik perlu untuk anda menjadi sebahagian daripada penyelidikan ini. Kami mahu adik bertanya kepada kami sebarang soalan yang adik ada. Adik juga boleh bertanya soalan pada bila-bila masa.

Perkara penting untuk tahu...

- Adik perlu membuat keputusan jika anda ingin mengambil bahagian.
- Adik boleh mengatakan ‘ tidak ‘ atau adik boleh mengatakan ‘ Ya ‘.
- Tiada siapa yang akan marah jika adik mengatakan ‘ tidak ‘.
- Jika adik katakan ‘ Ya ‘, adik sentiasa boleh mengatakan ‘ tidak ‘ kemudian.
- Adik boleh menyebut ‘ tidak ‘ pada bila-bila masa.
- Kami masih akan menjaga anda dengan baik tanpa mengira apa sahaja keputusan adik

Kenapa kami melaksanakan penyelidikan ini?

Kami menjalankan penyelidikan ini untuk meneroka sebab adik mengalami tekanan perasaan, cara adik menanganinya dan adakah adik cuba mendapatkan bantuan.

Apa akan terjadi sekiranya saya menyertai penyelidikan ini?

Sekiranya adik membuat keputusan untuk menyertai penyelidikan ini, kami akan meminta anda untuk melakukan perkara berikut:

- Soalan: Kami akan meminta adik untuk membaca soalan di kertas soalan dan adik diminta untuk menandakan jawapan di atas kertas tersebut.

Adakah akan terjadi perkara buruk sekiranya saya menyertai penyelidikan ini?

Beberapa soalan mungkin agak sukar untuk adik jawab atau membuatkan adik berasa tidak selesa. Walaubagaimanapun, kami akan memastikan tiada perkara buruk akan berlaku. Adik boleh katakan ‘tidak’ pada apa apa perkara yang kami minta adik pada bila-bila masa sahaja dan kami akan berhenti.

Jika adik rasa tidak selesa, sedih, susah hati, sakit - sakit kepala, ingin muntah, beritahu kami, dan kami akan berhenti. Selepas itu, adik boleh berbincang dengan pegawai psikologi terlatih yang bersama kami. Adik boleh berkongsi apa yang adik risaukan, dengar pendapat mereka untuk bantu adik hilangkan rasa risau adik

Adakah penyelidikan ini akan membantu saya?

Kami harap penyelidikan ini akan membantu adik untuk mencapai kesihatan yang lebih baik pada masa akan datang. Maklumat yang diperoleh daripada kajian ini akan membantu untuk meningkatkan program dan perkhidmatan kesihatan mental dalam kalangan kanak-kanak dan remaja. Kami berharap adik dapat mempelajari sesuatu daripada penyelidikan ini dan kami berharap ia akan membantu kanak-kanak lain yang melalui pengalaman yang sama seperti adik.

Apa lagi yang saya perlu tahu mengenai penyelidikan ini?

Sekiranya adik tidak mahu terlibat dengan kajian ini, adik tidak perlu menyertainya,
Tidak ada masalah untuk katakan ya dan ubah fikiran anda kemudian. Adik boleh berhenti pada bila-bila masa sahaja. Sekiranya adik ingin berhenti, sila maklumkan kepada penyelidik kajian.

Adik boleh berkongsi jawapan dengan ibu bapa adik. Kami tidak akan memberitahu orang lain apa yang anda beritahu kami, tetapi jika terdapat sebarang bahaya, kami akan berkongsi maklumat dengan orang yang bimbang tentang adik untuk melindungi adik.

Adik juga boleh bertanyakan soalan pada bila-bila masa sahaja kepada Ketua Penyelidik Kajian Puan Siti Nur Farhana Harun di nombor 03-33628611. Tanya apa sahaja soalan yang adik ada. Ambillah masa yang adik perlukan untuk membuat pilihan. Ingat, walaupun ibu bapa anda mengatakan 'Ya', adik masih boleh mengatakan 'Tidak'.

Ada apa-apa perkara lain?

Sekiranya adik ingin menyertai kajian ini, sila tulis nama adik dibawah. Kami juga akan menulis nama kami. Ini menunjukkan kita telah berbincang mengenai kajian ini dan adik ingin menyertainya.

Nama Peserta : ______________________________

No MyKid Peserta : ______________________________

Nama Penyelidik : ______________________________

No IC Penyelidik : ______________________________

Tandatangan Penyelidik : ______________________________

______________________ ______________________
Tarikh ***Masa***

Questionnaire

ID:

BORANG SOAL SELIDIK / *QUESTIONNAIRE*

Kajian Kesihatan Minda Kanak-Kanak Dan Remaja Yang Tinggal Di Projek Perumahan Rakyat (PPR) Selangor Dan Kuala Lumpur Semasa Pandemik Covid-19
Factors Contributing to Psychological Distress, Coping Strategies and Help-Seeking Behaviour Among Children and Adolescents Living in Selangor and Kuala Lumpur PPR During Covid-19 Pandemic

Dipohon kerjasama responden untuk isikan dan tandakan (✓) pada jawapan yang bersesuaian
Please fill up the information and tick (✓) the appropriate answer.

Maklumat respondent/ *Respondent information*

1. Nama Respondent/ *Respondent name:*

2. Tahap pendidikan tertinggi/ Highest *education level*

Tidak pernah bersekolah / *Never attended school*	☐
Tidak habis sekolah rendah / *Did not complete primary school*	☐
Tamat darjah 6 / *Completed standard 6*	☐
Tamat tingkatan 3 / *Completed form 3*	☐
Tamat tingkatan 4 / *Completed form 4*	☐
Masih bersekolah / *Still in school*	☐

Lain-lain / *Others:* ________________________________

3. a) Soalan ini bagi responden yang **mempunyai peranti sendiri** seperti telefon pintar, komputer riba atau tablet.
*This question is for respondents who **have their own devices** such as smartphones, laptops and tablets.*

Saya memiliki peranti sendiri seperti / I have my own gadgets such as:

i.	telefon pintar / *smartphone*	☐
ii.	tablet / *tablet*	☐
iii.	komputer riba / *laptop*	☐

iv. lain-lain, sila nyatakan / *others, please specify:* ____________________________________

b) Soalan ini bagi responden yang **tidak mempunyai peranti sendiri** seperti telefon pintar, komputer riba atau tablet.
*This question is for respondents who **do not have their own devices** such as smartphones, laptops and tablets.*

Saya berkongsi peranti dengan adik-beradik. / I usually share my gadgets with my siblings.	☐
Saya menggunakan peranti ibu dan ayah saya. / I use my parent's gadgets.	☐

ID:

4. Dalam tempoh 30 hari yang lalu, adakah anda pernah merokok? (contoh: rokok yang dikilang, rokok elektronik/ vape, rokok digulung sendiri, kretek, curut, shisha, bidis, paip tembakau) /
   In the last 30 days, have you ever smoked? (Example: manufactured cigarettes, E-cigarettes/vape, hand-rolled cigarettes, kreteks, cigars, shisha, bidis, tobacco pipes)

   Ya / Yes ☐

   Tidak / No ☐

5. Dalam tempoh 12 bulan yang lepas, adakah anda minum sebarang minuman yang mengandungi alkohol? /
   In the last 12 months, did you consume any alcoholic beverages?

   Ya / Yes ☐

   Tidak / No ☐

6. Sepanjang hidup anda, adakah anda pernah mengambil sebarang dadah atau bahan terlarang (contoh: heroin atau morfin, ganja, meth, syabu, ice, pil yaba/kuda, gam, cat, ketum) /
   Have you ever taken any drugs or substances in your lifetime? (Example: heroin, morphine, marijuana, meth, syabu, ice, yaba pill, glue, paint, kratom)

   Ya / Yes ☐

   Tidak / No ☐

ID:

SARINGAN KESIHATAN MINDA: PATIENT HEALTH QUESTIONNAIRE (PHQ9)

Dalam tempoh dua **(2) minggu** yang lepas, berapa kerap kali anda terganggu oleh masalah berikut?
Sila jawab semua soalan dan **bulatkan** jawapan yang paling hampir dengan keaadaan anda sekarang.

*Over the last two **(2) weeks**, how often have you been bothered by any of the following problems?*
*Please answer ALL questions and **circle** the answer that applies to you.*

		Tidak Pernah Sama Sekali ***Not at all***	**Beberapa hari** ***Several days***	**Lebih dari seminggu** ***More than half the days***	**Hampir setiap hari** **Nearly everyday**
1.	Sedikit minat atau keseronokan dalam melakukan kerja-kerja. *Little interest or pleasure in doing things.*	0	1	2	3
2.	Berasa murung, sedih atau tiada harapan. *Feeling down, depressed or hopeless.*	0	1	2	3
3.	Masalah hendak tidur/semasa tidur atau tidur terlalu banyak. *Trouble falling/staying asleep, sleeping too much.*	0	1	2	3
4.	Berasa letih atau kurang bertenaga. *Feeling tired or having little energy.*	0	1	2	3
5.	Kurang selera atau terlalu banyak makan. *Poor appetite or overeating.*	0	1	2	3
6.	Mempunyai perasaan buruk terhadap diri sendiri atau pun berasa gagal terhadap diri sendiri arau pun menghampakan diri atau keluarga. *Feeling bad about yourself – or that you are a failure or have let yourself or your family down.*	0	1	2	3
7.	Masalah untuk menumpukan perhatian terhadap perkara-perkara seperti membaca surat khabar atau menonton televisyen. *Trouble concentrating on things, such as reading the newspaper or watching television.*	0	1	2	3
8.	Bergerak atau bercakap terlalu lambat sehingga disedari oleh orang lain. Atau pun bertentangan-terlalu resah atau gelisah sehingga anda bergerak lebih dari biasa. *Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.*	0	1	2	3
9.	Berfikir bahawa lebih elok jika anda telah mati atau ingin mencederakan diri anda dalam sesuatu cara. *Thoughts that you would be better off dead or of hurting yourself in some way.*	0	1	2	3
	Kod kegunaan pejabat *(for office use only)*				
				Jumlah skor =	

ID:

SARINGAN KESIHATAN MINDA: GENERALIZED ANXIETY DISORDER (GAD-7)

Dalam tempoh dua **(2) minggu** yang lepas, berapa kerap kali anda terganggu oleh masalah berikut?
Sila jawab semua soalan dan **bulatkan** jawapan yang paling hampir dengan keadaan anda sekarang.

*Over the last two **(2) weeks**, how often have you been bothered by any of the following problems?*
*Please answer ALL questions and **circle** the answer that applies to you.*

		Tidak Pernah Sama Sekali ***Not at all***	**Beberapa hari** ***Several days***	**Lebih dari seminggu** ***More than half the days***	**Hampir setiap hari** **Nearly everyday**
1.	Berasa resah, gelisah atau tegang *Feeling nervous, anxious, or on edge*	0	1	2	3
2.	Tidak dapat menghentikan atau mengawal kebimbangan *Not being able to stop or control worrying*	0	1	2	3
3.	Terlalu bimbang mengenai pelbagai perkara yang berlainan *Worrying too much about different things*	0	1	2	3
4.	Mempunyai masalah untuk tenang *Having trouble relaxing*	0	1	2	3
5.	Terlalu resah sehingga susah untuk berdiam diri *Being so restless that it is hard to sit still*	0	1	2	3
6.	Mudah menjadi rimas dan menjengkelkan *Becoming easily annoyed or irritable*	0	1	2	3
7.	Berasa takut bahawa sesuatu yang buruk akan terjadi *Feeling afraid as if something awful might happen*	0	1	2	3
	Kod kegunaan pejabat *(for office use only)*				
				Jumlah skor =	

SOALAN TAMAT
TERIMA KASIH

Semi-structured interview guide

ENGLISH

Introduction

Assalamualaikum / Salam Sejahtera. We are from the Ministry of Health Malaysia, currently conducting research on mental health. We want to explore the contributing factors to psychological distress, coping strategies and help-seeking behaviours throughout the COVID-19 pandemic.

- There are no right or wrong answers. We appreciate if you can give a sincere and honest opinion.
- The details you share here will be kept confidential and for our records only.
- We request your consent to record this interview session for our research purposes only.

Introduction session - respondents introduce themselves

- Can you introduce yourself
- Where do you go to school? What Year/Form?
- How are you today? Have you eaten?

Objective	English	
	Main Guide	**Probing**
1) To explore the source of psychological distress among adolescents living in the Klang Valley PPRs during COVID-19 pandemic	Based on the screening result, we identified that you show symptoms of stress/ depression/ anxiety. Do you mind to sharing with us, what made you feel stress/ sad/ or anxious?	
	If the participant mentions the cause of stress: Please ask if the source of stress happened before, during or after the pandemic. Explore in detail the difference in the timeline of the respondent, i.e. Before, During and After.	If it happened during the pandemic, has it persisted until now? Is there any changes? (Is it the same? worse? or less?)
	How was your daily life during the pandemic?	Do you face any difficulties during the pandemic? Do you mind sharing with us.
	If the answer from the participant related to: 1) School Factors How is your learning experience during the pandemic?	PdPR (online classes) - What is your experience during PdPR? - How do you feel about taking online class? - Do you face any difficulties in PdPR? - Do your friends share similar experiences and feelings?

Objective	English	
	Main Guide	**Probing**
		Physical class: Have you started going to school physically? Since we have started school physically, can you describe the learning experiences now as compared to PdPr?
	2) Family and friends How was your relationship with your family/ friends during the pandemic?	- With whom are you closest? - What activities do you do with your family/ friends?
	3) Environmental How is the condition of your house? Do you feel comfortable?	- Privacy
2) To explore the coping strategies in dealing with psychological distress among adolescents living in the PPR during the COVID-19 pandemic	How did you cope with your stress/ anxiety during the pandemic?	- What are the activities you do to relieve your stress/ anxiety? - How much time do you spend on the activity?
3) To explore their help-seeking behaviour in dealing with psychological distress during the COVID-19 pandemic	Do you share your feelings with anyone when you are stressed/sad/ worried? - If **YES**, with whom did you share your problems?	How do you feel after expressing your feelings? Was your stress reduced?
	Did you ask for help from anyone? - If **YES,** with whom did you ask for help? - What made you ask for help from that person?	
	• Do you know any social support helplines that are available to help with your problems? • Have you ever contacted any social support helplines?	If **YES**, - What are the social support helplines that you have contacted? - Did you find the social support helplines helpful? - How do you feel after expressing your feelings with the service? If **NO**, - Notes: Interviewers must explain the social support helplines - Are you interested to know how to contact the social support helplines?
	In your opinion, what does MOH can do to help you in managing your stress?	

BAHASA MELAYU

SKRIP

Pengenalan
Assalamualaikum/ salam sejahtera. Kami daripada Kementerian Kesihatan Malaysia sedang menjalankan kajian berkaitan kesihatan mental. Kami ingin meneroka faktor tekanan psikologikal, strategi daya tindak dan tingkah laku mendapatkan bantuan sepanjang pandemik COVID-19.

- Tiada jawapan yang betul atau salah. Kami hargai jika anda dapat memberi pendapat secara ikhlas dan jujur.
- Apa yang anda kongsikan akan kami rahsiakan dan digunakan untuk kajian ini sahaja.
- Kami ingin meminta persetujuan anda untuk merakam sesi temu bual ini bagi kegunaan kajian sahaja.

Sesi pengenalan diri - responden memperkenalkan diri

- Boleh anda perkenalkan diri?
- Dimanakah anda bersekolah? Darjah/Tingkatan berapa?
- Apa khabar anda hari ini? Adakah anda sudah makan?

Objektif	Bahasa Melayu	
	Panduan Utama	***Probing***
1) Untuk mengkaji punca tekanan psikologikal dalam kalangan kanak-kanak dan remaja yang tinggal di PPR semasa pandemik COVID-19.	Berdasarkan saringan, saya dapati anda ada gejala stres/sedih/risau. Bolehkah anda kongsikan apa yang membuatkan anda rasa stres/sedih/ risau?	
	Sekiranya responden menyatakan punca stres. Tanya sama ada punca stres tersebut berlaku sebelum, semasa atau selepas pandemik. Teroka dengan lebih mendalam perbezaan garis masa, i.e. Sebelum, Semasa, Selepas.	Jika ia berlaku semasa pandemik, adakah ia berlarutan? Adakah terdapat sebarang perubahan? (lebih teruk, sama, atau berkurang?)
	Bagaimana kehidupan harian anda semasa pandemik?	Adakah anda mengalami sebarang kesukaran semasa pandemik? Boleh anda kongsikan?
	Jika jawapan responden berkaitan dengan: 1) Faktor Sekolah Bagaimana pengalaman pembelajaran anda sepanjang pandemik?	PdPR (kelas atas talian) - Apakah pengalaman anda semasa menjalani PdPR? - Apa perasaan anda mengikuti kelas secara atas talian? - Adakah anda mengalami kesukaran ketika mengikuti kelas PdPR? - Adakah kawan-kawan anda juga mengalami perkara yang sama?
		Kelas secara fizikal: Adakah anda telah mula pergi ke sekolah secara fizikal? Bolehkah anda ceritakan pengalaman pembelajaran secara fizikal sekarang berbanding semasa mengikuti kelas PdPR?

Objektif	Bahasa Melayu	
	Panduan Utama	***Probing***
	2) Keluarga dan rakan Bagaimana hubungan anda dengan keluarga/ kawan sepanjang kita menghadapi pandemik?	- Dengan siapa anda paling rapat? - Apa aktiviti yang anda buat bersama keluarga/ rakan?
	3) Persekitaran Bagaimanakah keadaan rumah anda? Adakah anda selesa?	- Privasi
2) Untuk meneroka strategi daya tindak dalam menguruskan tekanan psikologi dalam kalangan kanak-kanak dan remaja yang tinggal di PPR semasa pandemik COVID-19	Bagaimana anda menguruskan stres/ keresahan semasa pandemik?	- Apakah aktiviti yang anda lakukan untuk meredakan stres? - Berapa lama anda meluangkan masa untuk aktiviti tersebut?
3) Untuk meneroka tingkah laku mendapatkan bantuan dalam menguruskan tekanan psikologi semasa pandemik COVID-19.	Adakah anda berkongsi perasaan anda (stres/sedih/risau) dengan sesiapa? - Jika **YA**, dengan siapakah anda berkongsi masalah?	Apakah yang anda rasa selepas meluahkan perasaan anda? Adakah stres anda berkurang?
	Adakah adik meminta pertolongan daripada sesiapa? - Jika **YA,** dengan siapa anda meminta pertolongan? - Apa yang menyebabkan anda meminta pertolongan daripada orang tersebut?	
	• Adakah anda tahu bahawa terdapat talian sokongan sosial yang disediakan bagi membantu masalah yang anda alami? • Adakah anda pernah menghubungi mana-mana talian sokongan sosial? Apa cadangan yang anda rasa pihak KKM boleh lakukan bagi membantu anda dalam pengurusan stres?	Jika **YA**, - Apakah talian sokongan sosial yang anda hubungi? - Adakah anda rasa talian sokongan sosial ini membantu? - Apa yang anda rasa selepas menggunakan perkhidmatan tersebut? Jika **TIDAK**, - Nota: Penemubual perlu menerangkan berkenaan talian sokongan sosial. - Adakah anda berminat untuk tahu bagaimana untuk menghubungi talian sokongan sosial?

MREC approval letter

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(*Medical Research & Ethics Committee*)
KEMENTERIAN KESIHATAN MALAYSIA
d/a Kompleks Institut Kesihatan Negara
Blok A, No 1, Jalan Setia Murni U13/52,
Seksyen U13, Bandar Setia Alam,
40170 Shah Alam, Selangor.

Tel: 03-3362 8888/8205

Ref:(17)KKM/NIHSEC/ P21-1528
Date: 24-November-2021

SITI NUR FARHANA BT HARUN
Institute for Health Behavioural Research (IHBR)

Dear Sir/ Mdm,

ETHICS INITIAL APPROVAL:

NMRR-21-1521-60861 (IIR)
Protocol No:
Contributing Factors to Psychological Distress, Coping Strategies and Help-seeking Behaviours among Children Living in PPR during COVID-19 Pandemic

This letter is made in reference to the above matter.

2. The Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia (MOH) has provided ethical approval for this study. Please take note that all records and data are to be kept strictly **CONFIDENTIAL** and can only be used for the purpose of this study. All precautions are to be taken to maintain data confidentiality. Permission from the District Health officer/Hospital Administrator/ Hospital Director and all relevant heads of departments /units where the study will be carried out must be obtained prior to the study. You are required to follow and comply with their decision and all other relevant regulations.

3. The investigators and study sites involved in this study are:

Institute for Health Behavioural Research (IHBR)
AIMI NADIAH BINTI MOHAMAd NORZLEN
Dr NORMAWATI BINTI AHMAD
Dr Ponnusamy Subramaniam
Elizabeth Wong Jia-Le
Hyung Joon Kim
Mr mohd hairmansah bin mohd shah
Mrs Jessica Sally Sercombe
MS NORRAFIZAH BT JAAFAR
Pn Noorlaile binti Jasman
SITI NUR FARHANA BT HARUN (Penyelidik Utama)

4. The following study documents have been received and reviewed with reference to the above study:

Documents received and reviewed with reference to the above study:
1) Study Protocol Version 2 Version Date 03-11-2021
2) Patient information sheet (English) - Version 2 Version Date 03-11-2021
3) Patient information sheet (BM) - Parents Version 2 Version Date 03-11-2021
4) Respondents Information Sheet (BM) - Children aged 10-16 years old (attached together with

Ref:(17)KKM/NIHSEC/ P21-1528
Date: 24-November-2021

Patient information sheet (BM) - Parents Version 2 Version Date 03-11-2021 5)Questionnaire Version 2 Version Date 03-11-2021

5. Please note that the approval is valid until **23-November-2022**. The following are to be reported upon receiving ethical approval. Required forms can be obtained from the National Medical Research Registry website.

   i. **Continuing Review Form** has to be submitted to MREC **2 months (60 days) prior** to the expiry of ethical approval.

   ii. **Study Final Report** upon study completion to the MREC.

   iii. Ethical approval is required in the case of **amendments/ changes** to the **study documents/ study sites/ study team**. MREC reserves the right to withdraw ethical approval if changes to study documents are not completely declared.

   iv. **Applicable for Clinical interventional Studies only:** Report occurrences of **all Serious Adverse Events (SAEs), Suspected Unexpected Serious Adverse Reaction (SUSARs)** and **Protocol Deviation/Violation** at all MREC approved sites to MREC. SAEs are to be reported within 15 calendar days from awareness of event by investigator. Initial report of SUSARs are to be reported as soon as possible but not later than 7 calendar days from awareness of event by investigator, followed by a complete report within 8 additional calendar days.

6. Total of **936 subjects** are targeted to enroll this study in Malaysia.

7. Please take note that the reference number for this letter must be stated in all correspondence related to this study to facilitate the process.

Comments (if any): None

Project Sites:

Institute for Health Behavioural Research (IHBR)

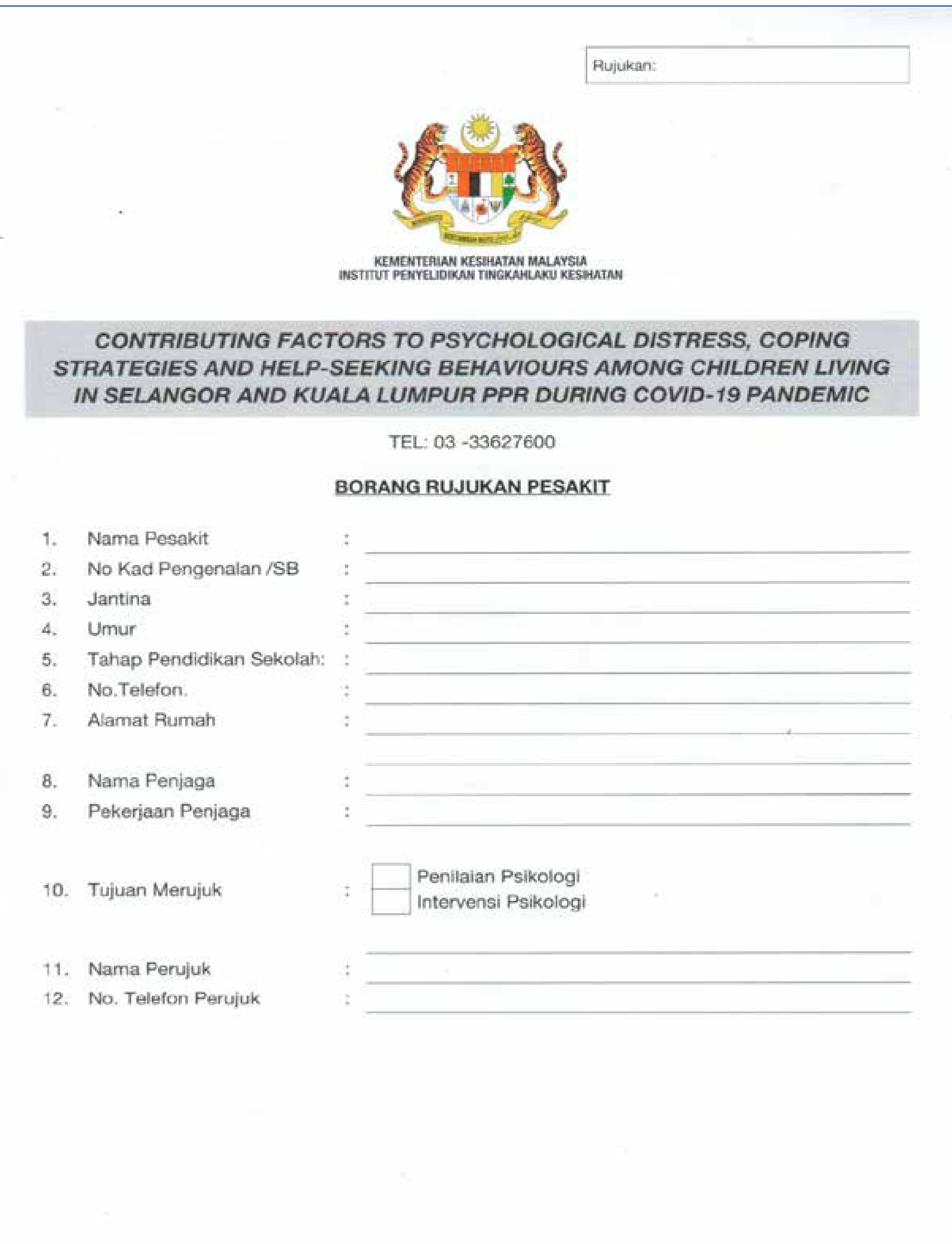
Decision by Medical Research & Ethics Committee:
(√) Approved
( ) Disapproved

Date of Approval : **24-November-2021**

DR HJH SALINA BT ABDUL AZIZ
Chairperson
Medical Research & Ethics Committee
Ministry of Health Malaysia
MMC No.:27117

\LEE\MREC_Share\Approval 2021\full-board\17-November-2021

Template Referral letter



Rujukan:

CONTRIBUTING FACTORS TO PSYCHOLOGICAL DISTRESS, COPING STRATEGIES AND HELP-SEEKING BEHAVIOURS AMONG CHILDREN LIVING IN SELANGOR AND KUALA LUMPUR PPR DURING COVID-19 PANDEMIC

TEL: 03 -33627600

BORANG RUJUKAN PESAKIT

1. Nama Pesakit : ____
2. No Kad Pengenalan /SB : ____
3. Jantina : ____
4. Umur : ____
5. Tahap Pendidikan Sekolah: ____
6. No.Telefon. : ____
7. Alamat Rumah : ____
8. Nama Penjaga : ____
9. Pekerjaan Penjaga : ____
10. Tujuan Merujuk : ☐ Penilaian Psikologi ☐ Intervensi Psikologi
11. Nama Perujuk : ____
12. No. Telefon Perujuk : ____

Tarikh :

Tuan/Puan,

PEMERIKSAAN PERUBATAN

Dengan hormatnya perkara di atas dirujuk,

2. Berhubung dengan perkara di atas, pihak kami memohon jasa baik tuan/puan bagi mendapatkan kemudahan untuk menjalani pemeriksaan selanjutnya ke atas pembawa surat ini iaitu ______ ________________________No. Sijil Kelahiran / No. IC ______________________.

3. Hasil saringan mendapati pembawa surat ini menunjukkan:

Patient Health Questionnaire (PHQ-9)	
	Moderate
	Moderately severe
	Severe
Generalized Anxiety Disorder (GAD-7)	
	Moderate
	Severe

4. (Ulasan selanjutnya)____
____
____

Sekian, terima kasih,
Saya yang menurut perintah,

____
( )
Kaunselor Berdaftar

Booklet for Mental Health Intervention

MINDA SIHAT

1. Apa itu Kesihatan Mental?

2. Tanda-tanda Masalah Kesihatan Mental dan Cara Atasinya

3. CARA SIHAT Atasi Stres dengan 'Kaedah 10B'

4. CARA TIDAK SIHAT Atasi Stres

5. Tips Penjagaan Kesihatan Mental

6. dan 7. Saya Marah dan Sedih, Apa Perlu Saya Buat?

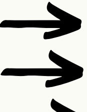
Apa itu Kesihatan Mental?

Kesihatan Mental

Beri kesan pada emosi (berfikir dan perasaan), tingkah laku (bertindak) dan sosial (berkawan)

Keadaan seseorang yang sedar dia
- Ada keupayaan diri
- Boleh lawan stres
- Boleh membuat akitiviti berfaedah
- Boleh menolong orang sekeliling

Masalah Kesihatan Mental



Stres

Keresahan

Kemurungan

Cara Kenali

Saringan Minda Sihat

Sumber: Kementerian Kesihatan Malaysia, 2020

Perbezaan di antara

Masalah Kesihatan Mental

Berlaku bila seseorang ada gangguan perasaan yang boleh beri kesan pada aktiviti harian TETAPI tidak sampai kepada tahap penyakit mental

Penyakit Mental

Adalah gangguan fungsi otak yang beri kesan buruk pada fikiran, perasaan dan tingkah laku

Jika tidak dikawal, seseorang tidak akan mampu menghadapi cabaran aktiviti seharian

Sumber: Kementerian Kesihatan Malaysia, 2020

1

Tanda-tanda Masalah Kesihatan Mental dan Cara Atasinya

KEMURUNGAN

Perasaan sedih berpanjangan, keletihan, ketiadaan tenaga, cepat marah dan hilang minat dalam aktiviti harian

Tanda-tanda

- Masalah tidur
- Perubahan selera makan
- Penurunan atau peningkatan berat badan
- Hilang minat dan tumpuan
- Cepat putus asa
- Rasa bersalah yang keterlaluan

Cara atasi

- Kenal pasti perkara yang disukai dan lakukannya!
- Jika tiada selera makan, cuba makan sikit-sikit
- Banyak minum air kosong
- Elak tidur siang yang lama
- Pastikan tidur malam 8 jam sehari (jika terjaga, ambil masa untuk rileks dan cuba untuk tidur semula)

KERESAHAN

Sentiasa risau dan takut yang melampau (berlebihan) terhadap apa yang terjadi setiap hari tanpa sebab yang jelas dan sukar dikawal

Tanda-tanda

- Susah tidur
- Hilang tumpuan
- Penafasan jadi laju
- Degupan jantung laju

Cara atasi

- Belajar untuk rileks
- Buat aktiviti yang menenangkan
- Kurangkan minum kopi dan teh
- Kerap bersenam
- Berfikiran positif
- Mohon bantuan jika tidak mampu untuk selesaikan masalah

Sumber: Primary Mental Health Service, Gloucestershire NHS Partnership Trust, 2019

2

CARA SIHAT
Atasi Stres dengan 'Kaedah 10B'

LAKUKAN aktiviti di bawah untuk atasi stres

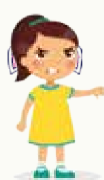
Sila tandakan (✓) jika anda telah lakukannya

- Bernafas dengan dalam ☐
- Bersenam ☐
- Beribadah ☐
- Berehat & dengar muzik ☐
- Berurut ☐
- Berkata 'rilekslah' ☐
- Bercakap dengan seseorang ☐
- Berfikiran positif ☐
- Bertenang ☐
- Beriadah ☐

Sumber: Kementerian Kesihatan Malaysia, 2011

3

CARA TIDAK SIHAT
Atasi Stres

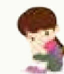


KENAPA TIDAK BOLEH?!

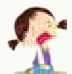
kerana cara ini akan memberi stres baharu dan menambah kesan stres pada masa akan datang

Jangan bagi stres pada orang lain

Jangan bertindak ganas

 Jangan sembunyikan stres

Jangan ambil dadah dan arak

 Jangan mengamuk

Elakkan minum kopi atau teh yang berlebihan

Jangan ikut ajakan yang buruk

Elakkan makan makanan tidak sihat

Jangan merokok atau vape

Sumber: Canadian Mental Health Association, 2016

4

Tips Penjagaan Kesihatan Mental

Sumber & sokongan:
Kementerian Kesihatan Malaysia

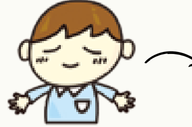
Perlu bantuan? Sila hubungi:

- BEFRIENDERS KL (03-76272929)
- MIASA (03-79321409)
- MERCY (03-29359935)
- NALURI (03-84081748)

5

Saya Marah dan Sedih, Apa Perlu Saya Buat?

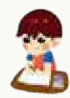
1. Mari bernafas secara teratur

Tarik nafas (4 saat)	Tahan nafas (4 saat)	Hembus nafas dengan suara (4 saat)	Tahan nafas (4 saat)
			

Ulang langkah di atas sebanyak 3 kali. Kemudian bernafas secara biasa.
Jika masih stres, ulang langkah di atas sehingga rasa tenang.

---

2. Mari luah emosi secara positif dengan cara:

- ☑ Berdoa kepada tuhan
- ☑ Tulis diari 
- ☑ Menangis
- ☑ Bersenam
- ☑ Bercakap dengan seseorang
- ☑ Buat aktiviti-aktiviti lasak yang selamat

---

3. Berkata positif pada diri sendiri berulang kali

Mendengar kata-kata positif diri sendiri berulang-kali mampu mengawal emosi

Sumber: Unit Psikologi Kaunseling (Bahagian Pengurusan), Hosp Sultan Abdul Halim

6

Saya Marah dan Sedih, Apa Perlu Saya Buat?

4. Mari kita cuba rangsang deria kita:

(lihat, rasa, bau, sentuh dan dengar)

Tandakan (✓)dalam kotak yang telah disediakan jika telah dibuat

LIHAT:

- ☐ Tumbuhan hijau
- ☐ Alam sekitar

RASA:

- ☐ Bersuara atau bercakap
- ☐ Berzikir
- ☐ Makan makanan yang sedap
- ☐ Menyanyi

BAU:

- ☐ Haruman minyak wangi
- ☐ Aroma makanan
- ☐ Haruman alam semulajadi (laut)
- ☐ Bau bunga

Lakukan SENTUHAN dengan:

- ☐ Peluk orang lain (ibubapa)
- ☐ Urut diri
- ☐ Belai haiwan peliharaan (kucing)

DENGAR:

- ☐ Kata-kata motivasi
- ☐ Muzik
- ☐ Bunyi alam semulajadi (ombak)

Sumber: Unit Psikologi Kaunseling (Bahagian Pengurusan), Hospital Sultan Abdul Halim

TERBITAN OLEH:
INSTITUT PENYELIDIKAN TINGKAHLAKU KESIHATAN
BLOK B3, KOMPLEKS INSTITUT KESIHATAN NEGARA, NO 1, JALAN SETIA MURNI U13/52, SEKSYEN U13, SETIA ALAM, 40170 SHAH ALAM, SELANGOR DARUL EHSAN

7

Statistical analysis tables for sociodemographic factors associated with Depression and Anxiety

Table A: Sociodemographic factors associated with Depression

Variables		n	Depression				P value
			No	%	Yes	%	
Gender	Male	781	739	94.6%	42	5.4%	**<0.001**[***a]
	Female	797	671	84.2%	126	15.8%	
Schooling status	Did not complete schooling	15	11	73.3%	4	26.7%	0.066[b]
	Still schooling	1,563	1,399	89.5%	164	10.5%	
History of NCDs	No	1,561	1,393	89.2%	168	10.8%	0.244[b]
	Yes	17	17	100.0%	0	0.0%	
History of COVID-19 infection	No	1,156	1,037	89.7%	119	10.3%	0.453[a]
	Yes	422	373	88.4%	49	11.6%	
Duration living in PPRs	Less than 10 years	473	427	90.3%	46	9.7%	0.438[a]
	More than 10 years	1,105	983	89.0%	122	11.0%	
Owns any electronic device	No	347	323	93.1%	24	6.9%	**0.011**[*a]
	Yes	1,231	1,087	88.3%	144	11.7%	
Parental/ guardian marital status	Single Parent/Guardian (divorced, widow, separated, never married)	293	252	86.0%	41	14.0%	**0.040**[*a]
	Married/living with partner	1,285	1,158	90.1%	127	9.9%	
Income affected during the COVID-19 pandemic	No	435	387	89.0%	48	11.0%	0.758[a]
	Yes	1,143	1,023	89.5%	120	10.5%	
Loss of job during the COVID-19 pandemic	No	1,031	919	89.1%	112	10.9%	0.701[a]
	Yes	547	491	89.8%	56	10.2%	
Household crowding	No	253	229	90.5%	24	9.5%	0.514[a]
	Yes	1,325	1,181	89.1%	144	10.9%	
Family members with history of NCDs	No	906	814	89.8%	92	10.2%	0.462[a]
	Yes	672	596	88.7%	76	11.3%	
Family members with history of COVID-19	No	716	643	89.8%	73	10.2%	0.597[a]
	Yes	862	767	89.0%	95	11.0%	
Risky behaviour	No	1,509	1,357	89.9%	152	10.1%	**0.001**[**a]
	Yes	69	53	76.8%	16	23.2%	
Available entertainment devices at home	No	344	306	89.0%	38	11.0%	0.786[a]
	Yes	1,234	1,104	89.5%	130	10.5%	

Variables		n	Depression				P value
			No	%	Yes	%	
Respondent's age groups	Primary school age (10-12 years old)	548	517	94.3%	31	5.7%	**<0.001*****[a]
	Lower secondary school age (13-15 years old)	673	593	88.1%	80	11.9%	
	Higher secondary school age (16-17 years old)	357	300	84.0%	57	16.0%	
Respondent's ethnicity	Non-Malay	232	215	92.7%	17	7.3%	0.076[a]
	Malay	1,346	1,195	88.8%	151	11.2%	
Poverty status	No	588	526	89.5%	62	10.5%	0.919[a]
	Yes	990	884	89.3%	106	10.7%	
Father's education level	Primary education	156	140	89.7%	16	10.3%	0.257[a]
	Secondary education	1,000	904	90.4%	96	9.6%	
	Tertiary education	134	115	85.8%	19	14.2%	
Father's employment status	Not working	138	120	87.0%	18	13.0%	0.235[a]
	Working	1,152	1,039	90.2%	113	9.8%	
Father's occupation sector	Health sector	29	26	89.7%	3	10.3%	0.758[b]
	Non-health sector	1,121	1,011	90.2%	110	9.8%	
Mother's education level	Primary education	154	137	89.0%	17	11.0%	0.504[a]
	Secondary education	1,163	1,043	89.7%	120	10.3%	
	Tertiary education	157	136	86.6%	21	13.4%	
Mother's employment status	Not working	899	818	91.0%	81	9.0%	**0.008****[a]
	Working	575	498	86.6%	77	13.4%	
Mother's occupation sector	Health sector	29	27	93.1%	2	6.9%	0.407[b]
	Non-health sector	546	471	86.3%	75	13.7%	
Guardian's education level	Primary	29	28	96.6%	1	3.4%	0.389[b]
	Secondary and above	41	36	87.8%	5	12.2%	
Guardian's employment status	Not working	45	42	93.3%	3	6.7%	0.659[b]
	Working	25	22	88.0%	3	12.0%	

Notes:
** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*
[a] Pearson Chi Square test
[b] Fisher Exact test

Table B: Sociodemographic factors associated with Anxiety

Variables		n	Anxiety				P value
			No	%	Yes	%	
Gender	Male	781	765	98.0%	16	2.0%	**<0.001**[***a]
	Female	797	699	87.7%	98	12.3%	
Schooling status	Did not complete schooling	15	15	100.0%	0	0.0%	0.619[b]
	Still schooling	1,563	1,449	92.7%	114	7.3%	
History of NCDs	No	1,561	1,447	92.7%	114	7.3%	0.628[b]
	Yes	17	17	100.0%	0	0.0%	
History of COVID-19 infection	No	1,156	1,081	93.5%	75	6.5%	0.061[a]
	Yes	422	383	90.8%	39	9.2%	
Duration living in PPRs	Less than 10 years	473	451	95.3%	22	4.7%	**0.010**[*a]
	10 years and more	1,105	1,013	91.7%	92	8.3%	
Owns any electronic device	No	347	330	95.1%	17	4.9%	0.058[a]
	Yes	1,231	1,134	92.1%	97	7.9%	
Parental/ guardian marital status	Single parent/guardian (divorced, widow, separated, never married)	293	267	91.1%	26	8.9%	0.227[a]
	Married/living with partner	1,285	1,197	93.2%	88	6.8%	
Income affected during the COVID-19 pandemic	No	435	403	92.6%	32	7.4%	0.901[a]
	Yes	1,143	1,061	92.8%	82	7.2%	
Loss of job during the COVID-19 pandemic	No	1,031	957	92.8%	74	7.2%	0.921[a]
	Yes	547	507	92.7%	40	7.3%	
Household crowding	No	253	236	93.3%	17	6.7%	0.735[a]
	Yes	1,325	1,228	92.7%	97	7.3%	
Family members with history of NCDs	No	906	845	93.3%	61	6.7%	0.381[a]
	Yes	672	619	92.1%	53	7.9%	
Family members with history of COVID-19	No	716	670	93.6%	46	6.4%	0.263[a]
	Yes	862	794	92.1%	68	7.9%	
Risky behaviour	No	1509	1405	93.1%	104	6.9%	**0.028**[*b]
	Yes	69	59	85.5%	10	14.5%	
Available entertainment devices at home	No	344	320	93.0%	24	7.0%	0.841[a]
	Yes	1234	1144	92.7%	90	7.3%	

Variables		n	Anxiety				P value
			No	%	Yes	%	
Respondent's age groups	Primary school age (10-12 years old)	548	532	97.1%	16	2.9%	**<0.001**[***a]
	Lower secondary school age (13-15 years old)	673	618	91.8%	55	8.2%	
	Higher secondary school age (16-17 years old)	357	314	88.0%	43	12.0%	
Respondent's ethnicity	Non-Malay	232	222	95.7%	10	4.3%	0.063[a]
	Malay	1,346	1,242	92.3%	104	7.7%	
Poverty status	No	588	545	92.7%	43	7.3%	0.917[a]
	Yes	990	919	92.8%	71	7.2%	
Father's education level	Primary education	156	146	93.6%	10	6.4%	0.939[a]
	Secondary education	1,000	930	93.0%	70	7.0%	
	Tertiary education	134	124	92.5%	10	7.5%	
Father's employment status	Not working	138	129	93.5%	9	6.5%	0.824[a]
	Working	1,152	1,071	93.0%	81	7.0%	
Father's occupation sector	Health sector	29	28	96.6%	1	3.4%	0.716[b]
	Non-health sector	1,121	1,041	92.9%	80	7.1%	
Mother's education level	Primary education	154	143	92.9%	11	7.1%	0.973[a]
	Secondary education	1,163	1,080	92.9%	83	7.1%	
	Tertiary education	157	145	92.4%	12	7.6%	
Mother's employment status	Not working	899	843	93.8%	56	6.2%	0.074[a]
	Working	575	525	91.3%	50	8.7%	
Mother's occupation sector	Health sector	29	27	93.1%	2	6.9%	1.000[b]
	Non-health sector	546	498	91.2%	48	8.8%	
Guardian's education level	Primary	29	28	96.6%	1	3.4%	0.637[b]
	Secondary and above	41	38	92.7%	3	7.3%	
Guardian's employment status	Not working	45	41	91.1%	4	8.9%	0.289[b]
	Working	25	25	100.0%	0	0.0%	

Notes:
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
[a] Pearson Chi Square test
[b] Fisher Exact test

ISBN 978-967-5340-51-2