

MENTAL HEALTH LITERACY SURVEY AMONG PARENTS OF CHILDREN WITH AUTISM SPECTRUM CONDITION: A PRELIMINARY STUDY

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Abstract

Recently, mental health literacy (MHL) research has been growing widely in the literature. However, research on MHL in Malaysia is limited, and caregivers' MHL is often overlooked. As such, this study was conducted to examine the MHL of parents of children with Autism Spectrum Condition (ASC). This preliminary cross-sectional study recruited parents of children with ASC from a few selected therapy centers in Klang Valley to examine their mental health literacy. Descriptive statistics were used to determine the level of mental health literacy. Most respondents were mothers of children with ASC, from the Malay and Muslim groups, and had a formal education up to the tertiary level. MHL's mean (SD) scores among 61 parents of children with ASC were 119.28 (9.52) out of 160. In conclusion, the study showed that participants were mostly aware of mental illness. However, most participants had stigmatizing beliefs about social interaction and marriage with people with mental illness. Additional research should be conducted to understand further MHL and other variables among parents of children with ASC.

Keywords: Mental Health Literacy, Autism Spectrum Condition, Parents of Children with Autism Spectrum Condition, Malaysia

Introduction

Across the literature, mental health problems such as depression and anxiety are two common diagnoses and issues often reported among parents of children with Autism Spectrum Condition (ASC). The level of stress and depression among the parents was higher, and their psychological well-being was lower compared to parents of children without ASC (1-5). Besides, their level of anxiety was also higher (6), and elevated stress levels were reported for both parents (7, 8).

Parents' quality of care for their children is directly related to parental health and well-being (9-11). In addition, mental health literacy (MHL) is positively associated with mental well-being. It is also associated with people's help-

seeking intentions regarding their mental health concerns, and some studies have suggested it may play a role in help-seeking on behalf of others (12).

Mental health literacy was defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" (13) and has been operationalized into three major components; 1) knowledge of mental health, 2) attitude and stigma, and 3) help-seeking behavior related to treatment provided regarding mental health (13-15).

The World Health Organization (WHO) highlighted health literacy as a stronger predictor of health outcomes, including mental health. Good mental health literacy will enable a person to recognize, manage, or prevent

mental health problems, promoting resilience (16). In the context of children with ASC, good mental health literacy will allow the parents to prepare coping strategies while raising children with ASC (9). Furthermore, an improved understanding of mental health literacy also helps develop appropriate interventions to prevent and control mental health problems (17).

However, to date, only a small number of studies on mental health literacy have been documented as having been carried out in developing countries, despite these nations being said to have lower mental health literacy than western countries (18). Furthermore, to our knowledge, no published research focuses specifically on MHL among parents of children with ASC using a standardized instrument. Therefore, this study aimed to examine mental health literacy among parents of children with ASC in Malaysia.

Materials and Methods

Research design

This preliminary cross-sectional study was conducted among parents of children with ASC in Kuala Lumpur, Putrajaya, and Selangor. The participants were recruited through a purposive sampling technique. The recruitment criteria included (a) parents who have children aged 3–13 years old that attended private or government therapy centers for autism/ ASD/ ASC diagnosis, (b) residing in Kuala Lumpur, Putrajaya, and Selangor area, (c) the main caregiver/ parents (father OR mother) of children with ASC, and (d) willingly participated in the study. In addition, parents of children with ASC with other comorbidities, as mentioned but not limited to physical disabilities and mental illnesses (e.g., depression, Down syndrome, and epilepsy/seizures), were excluded from the study, as well as parents with more than one child with ASC.

Researchers approached a few selected centers in the included areas and disseminated the flyers and questionnaires to the person in charge in the administration office or to the therapist in charge. Following that, parents interested and willing to participate in the study completed the registration and consent form. Then, they were given the self-administered questionnaire and requested to return it to the person in charge within two weeks after the received date. Google form links were also available to the participants who preferred the online version. A total number of 62 parents of children with ASC consented to participate in the study. However, one parent refused to complete the questionnaire, hence overall 61 participants were included in the study.

Study instrument

Participants of this study had completed a set of bilingual questionnaires in English and Malay language consisting of two sections. The first section of the questionnaire is a set of sociodemographic details of the parents of children with ASC, including age, educational background, and ethnicity.

Meanwhile, the second section was a self-reported Mental Health Literacy Scale (MHLS) (17) to measure mental health literacy. The MHLS used in this study consists of 35 items with six attributes for mental health, namely 1) ability to recognize disorders; 2) knowledge of risk factors and causes; 3) knowledge of self-treatment; 4) knowledge of professional help available; 5) knowledge of where to seek information; and 6) attitudes that promote recognition or appropriate help-seeking behavior. This questionnaire is a Likert scale of 4-point and 5-point scales representing 1-very unlikely/ unhelpful, 4-very likely/ helpful, and 1-strongly disagree/ definitely unwilling, 5-strongly agree/ definitely willing, respectively. The literacy level ranged from 35 to 160 with an internal consistency of ($\alpha = 0.873$). The higher scores indicate good mental health literacy. There was no cut-off point for the MHLS.

Data analysis

Data were managed and analyzed using SPSS version 25. The data were analyzed using simple descriptive statistics to describe the sociodemographic details, mean scores of mental health literacy and frequencies of each item in MHLS among parents of children with ASC.

Results

Demographic characteristics of participants

The study examined mental health literacy among 61 parents of children with ASC, of which 98.4% ($n = 51$) were the mother, 14.8% ($n = 9$) were the father, and the remaining 1.6% ($n = 1$) were the aunt of the children with ASC. Most participants were Malays (93.4%, $n = 57$) and Muslims (90.2%, $n = 55$), aged between 28 to 64 years. Almost half of them completed the secondary and tertiary levels of education. Of these, only one parent with no formal education (1.6%, $n = 1$), less than 10 parents graduated with SPM/ O-Level (14.8%, $n = 9$). Meanwhile, approximately half completed their Bachelor's ($n = 28$), followed by Diploma/ A-Level/ STPM graduates (23%, $n = 14$) and Masters/PhD graduates (14.8%, $n = 9$). The demographic data for the participants are summarized in Table 1.

Mental health literacy of participants

The results documented that the mean (SD) score for MHL among participating parents with ASC children was 119.28 (9.52). Table 2 shows the response of participants to each of the mental health literacy questions. Most parents of children with ASC recognized Social Phobia (93.5%, $n = 57$) and Generalized Anxiety Disorder (98.3%, $n = 60$). Likewise, it also reported that 95.1% of the participants ($n = 58$) could recognize Major Depression, Personality Disorder, Agoraphobia, and Bipolar Disorder/ Manic Depression. Meanwhile, all participants could recognize Persistent Depression Disorder (100%, $n = 61$); however, Substance Abuse Disorder was the least recognized as a mental disorder by the participants (83.6%, $n = 51$).

Table 1: Sociodemographic characteristics of parents of children with ASC

Demographics characteristics	Frequency n = 61	Percentage (%)	Mean	SD
MHLS total score			119.28	9.52
Age range			36.68	6.07
Parents				
Father	9	14.5		
Mother	51	83.6		
Others	1	1.6		
Ethnic group				
Malay	57	93.4		
Chinese	2	3.3		
Indian	2	3.3		
Religion				
Islam	55	90.2		
Christianity	3	4.9		
Buddhism	1	1.6		
Hinduism	1	1.6		
Others	1	1.6		
Educational level				
No Formal Education	1	1.6		
SPM/ O-Level	9	14.8		
Diploma/ A-Level/ STPM	14	23		
Bachelor's Degree	28	45.9		
Master/ PhD	9	14.8		

ASC = Autism Spectrum Condition
 MHLS = Mental Health Literacy Survey

Regarding the knowledge of risk factors and causes of mental disorders, 75.4% of the participants think that women are more likely to experience mental illness than men; meanwhile, only 65.6% think that men are more likely to experience mental illness compared to women. Based on Table 2, only 78.7% (n = 48) and 72.7% (n = 44) of them agreed that improving the quality of sleep and avoiding all activities that made them feel anxious were very helpful/ helpful for them as a self-treatment for mental illness, respectively.

Items that described the sub-domain knowledge of professional help available showed that 83.6% (n = 51) of participants were at least likely to think that Cognitive Behavior Therapy (CBT) is a therapy that increased helpful behaviors by challenging negative thoughts; meanwhile, 16.4% (n = 10) of them think it is very unlikely/unlikely for CBT as a professional treatment. In addition, over three

out of four participants were either likely or very likely to allow mental health professionals to break their patients' confidentiality in certain situations.

Table 2 also reported the level of agreement of parents of children with ASC on their knowledge of where to seek information regarding mental illness. However, only 65.5% of the participants strongly agreed/agreed that they were confident they know where to seek information on mental illness, 29.5% neither agreed nor disagreed, and 4.9% of the participants strongly disagreed/disagreed that they have the confidence to seek information about mental illness. On the contrary, most parents of children with ASC strongly agreed that they were confident using technologies (n = 58). In addition, the participants also felt the confidence to attend face-to-face appointments with a general practitioner (91.85%, n = 56) in seeking information about mental illness.

Table 2: Response of parents of children with ASC to the items of MHL sub-domain

	N (%)	
	Very likely/ OR Very Helpful/ Helpful	Very unlikely/ Unlikely OR Very unhelpful/ Unhelpful
Item 1-8: Ability to recognize disorder		
Social Phobia	57 (93.5)	4 (6.5)
Generalized Anxiety Disorder	60 (98.3)	1 (1.6)
Major Depression	58 (95.1)	3 (4.9)
Personality Disorder	58 (95.1)	3 (4.9)
Persistent Depression Disorder	61 (100)	0
Agoraphobia	58 (95.1)	3 (4.9)
Bipolar Disorder/ Manic Depression	58 (95.1)	3 (4.9)
Substance Abuse Disorder	51 (83.6)	10 (16.4)
Item 9-10: Knowledge of risk factors and causes		
Women as risk factor	46 (75.4)	15 (24.6)
Men as risk factor	40 (65.6)	21 (34.5)
Item 11-12: Knowledge of self-treatment		
Improve quality of sleep	48 (78.7)	13 (21.3)
Avoid triggering activities or situation	44 (72.2)	17 (27.8)

	N (%)	
	Very likely/ Likely OR Very Helpful/ Helpful	Very unlikely/ Unlikely OR Very unhelpful/ Unhelpful
Item 13-15: Knowledge of professional help available		
Cognitive Behaviour Therapy (CBT)	51 (83.6)	10 (16.4)
Likelihood of professional breaking confidentiality at patient's risk of harming themselves or others	46 (75.4)	15 (24.6)
Likelihood of professional breaking confidentiality at not life-threatening situation and they want to assist others to better support you	48 (78.7)	13 (21.3)

Table 2: continued

	N (%)		
	Strongly Agree/ Agree OR Definitely willing/ willing	Neutral	Strongly disagree/ Disagree OR Definitely unwilling/ Unwilling
Item 16-19: Knowledge of where to seek information			
Self-confidence to seek information about mental illness	40 (65.6)	18 (29.5)	3 (4.9)
Self-confidence on using computer/ telephone to seek information about mental illness	58 (95.1)	2 (3.3)	1 (1.6)
Self-confidence to have face-to-face appointment with GP to seek information about mental illness	56 (91.8)	4 (6.6)	1 (1.6)
Self-confidence on having resources to seek information about mental illness	45 (73.8)	12 (19.7)	4 (6.5)

Table 2: continued

	N (%)		
	Strongly Agree/ Agree OR Definitely willing/ willing	Neutral	Strongly disagree/ Disagree OR Definitely unwilling/ Unwilling
Item 20-35: Attitudes that promote recognition or appropriate help-seeking behaviour			
People with a mental illness could snap out of it if they wanted	19 (31.2)	14 (23)	28 (45.9)
A mental illness is a sign of weakness	8 (13.1)	4 (6.6)	49 (80.3)
A mental illness is not real medical illness	9 (14.7)	17 (27.9)	35 (57.4)
People with a mental illness are dangerous	12 (19.7)	18 (29.5)	31 (50.8)
It is best to avoid people with a mental illness so that you don't develop this problem	3 (4.9)	8 (13.1)	50 (81.9)
If I had a mental illness, I would not tell anyone	4 (6.6)	14 (23)	43 (70.5)
Seeing a mental health professional means you are not strong enough to manage your own difficulties	11 (18)	4 (6.6)	46 (75.4)
If I had a mental illness, I would not seek help from a mental health professional	3 (4.9)	3 (4.9)	55 (90.2)
I believe treatment for a mental illness, provided by mental health professional, would not be effective	2 (4.2)	4 (6.6)	55 (90.2)
Willingness to move next door to someone with mental illness	19 (31.1)	38 (62.3)	4 (6.5)
Willingness to spend an evening socializing with someone with a mental illness	40 (65.5)	18 (29.5)	3 (4.9)
Willingness to make friends with someone with mental illness	43 (70.5)	14 (23)	4 (6.5)

Table 2: continued

	N (%)		
	Strongly Agree/ Agree OR Definitely willing/ willing	Neutral	Strongly disagree/ Disagree OR Definitely unwilling/ Unwilling
Willingness to have someone with a mental illness start working closely with you on a job	32 (52.5)	18 (29.5)	11 (18)
Willingness to have someone with a mental illness marry into your family	14 (22.9)	34 (55.7)	13 (21.3)
Willingness to vote for a politician if you knew they had suffered a mental illness	5 (8.2)	11 (18)	45 (73.8)
Willingness to employ someone if you knew they had mental illness	17 (27.8)	27 (44.3)	17 (27.9)

In the context of attitudes that promote recognition and appropriate help-seeking sub-domain of MHL, the result showed that almost the majority of parents of children with ASC strongly disagree/ disagree that mental illness illustrated sign of weakness (80.3%, n = 49), either mental illness is not a real medical illness (57.4%, n = 35), people with mental illness are dangerous (50.8%, n = 31), and strongly disagree/ disagree that it is best to avoid people with a mental illness so that you do not develop the problem (81.9%, n = 50). Meanwhile, only 45.9% of parents of children with ASC (n = 28) strongly disagree/ disagree that people with mental illness could snap out of the condition if they want. The remaining (31.2%, n = 19) strongly agree/agree that people with mental illness can snap out of their condition by themselves.

Next, table 2 also showed that most of the parents of children with ASC strongly disagree/disagree with the negative statements in item number 26-29; however, some parents agreed by seeing a mental health professional, meaning they are not strong enough to manage their difficulties (18%, n = 11). In addition, more than half participants were neither willing nor unwilling to move next door to someone with a mental illness (62.3%, n = 38) and to have someone with a mental illness marry into their family (55.7%, n = 34). Participants were also mostly strongly unwilling/unwilling to vote for a politician if they knew the politician had suffered a mental illness (73.8%, n = 45).

Discussion

This preliminary descriptive study was conducted to examine mental health literacy among parents of children with ASC (n = 61). This study employed the self-reported mental health literacy instrument, the Mental Health Literacy Scale (MHLS). The few MHL studies that were conducted in Malaysia were mostly among the university and secondary school students’ population (19-22). Several MHL studies have been conducted among caregivers (11, 23, 24); however, the MHL of the caregivers were often focused on recognizing sign and symptoms of the mental illness of the person they took care of, e.g. adolescents in secondary school (24) instead of understanding the MHL level of the parents or caregiver itself. It is critical to meet not just the needs of the patients but also those of the caregivers, who often require help on an emotional and financial level as well as information about the illness (25).

In this study, the mean and standard deviation of the total score of MHL parents of children with ASC was 119.28 and 9.52 (out of 160). Previous findings showed that the level of MHL in developing countries was mostly poor in general (22, 26). It is important to highlight that the current study had a small sample size and that exposure to mental health literacy differs between industrialized and developing countries. Based on the result, the participants’ mental health literacy level can be considered higher compared to other findings, with the average score of participants being 74% when converting the mean score of 119.28 into a percentage. The high numbers in the participation rate from the mother of ASC children (n = 51, 98.4%) might reflect the higher mean score of MHL in this study. Findings from previous studies on MHL with a higher percentage of female participants reported a significant positive association of mental health literacy with gender, and MHL mean scores were higher in female participants than males (22, 27, 28).

The majority of the parents of children with ASC were able to recognize the disorder described in MHLS. However, despite being able to recognize all the descriptions of the mental disorder correctly, Substance Abuse Disorder has the lowest number and percentage of participants that consider it a mental disorder. Substance abuse or alcohol consumption is a negative coping mechanism derived from failure to recognize it, and it is often difficult to acknowledge the condition as a form of mental disorder (22). The study found that mental health literacy was higher in participants not smoking or consuming alcohol (22). Studies found a significant positive association between help-seeking behavior and mental health literacy (29, 30), and poor recognition of mental disorder symptoms can lead to delay in seeking help, which can also lead to poor quality of life (28).

Most parents have self-confidence with the knowledge of where to seek information. They were most confident in

using technologies to seek information on mental illness. It is agreeable as one study on caregivers of chronic conditions reported that 80% of internet users will seek health information and support on the Web (31). Caregivers found the internet as a valuable tool for them to obtain information relating to their loved one's condition, and the internet can provide them with a path to finding support from each other who have similar experiences and struggles (31). Moreover, a study found that compared to the general public, caregivers were more likely to look online for health-related information (32). Online access to health information enables participants to learn more about their health issues, address them, make health decisions, and modify their behavior (33).

The study findings also showed that most participants were aware that mental illness is not a sign of weakness, is a real medical illness, is not dangerous, and is not a contagious illness. The study participants were also strongly willing/willing to spend an evening socializing with someone with a mental illness and make friends with someone with a mental illness. However, in contrast to that, most participants were indecisive about their willingness to have a neighbor with mental illness and have someone with mental illness marry into their family. This indecisiveness could be because participants were considering the interaction period they would have. Marrying and/or living next door to someone with a mental illness is a long-term life interaction compared to spending an evening activity or making friends with someone with a mental illness. Similarly, findings from a study in India indicated that they would be embarrassed if others learned that a member of their family had been diagnosed with a mental illness and that they would not want people to know about their illness, which is another indication of their negative attitudes toward the social participation of the mentally ill in the community (23). Mental health literacy is influenced by cultural variables such as the stigma associated with mental illness diagnosis, and the need to preserve family honor, and individual dignity (25).

In other studies of different populations using the same instrument, the MHL score was lower (26) and not high (28). Despite this study having a higher total score of MHL compared to the Iran population and Malaysian housewives population with a total mean score of 113.54 and 106.65, respectively (26, 28) of a similar instrument, this study's MHL mean score was still lower in comparison to the original study. The original MHL study mean score was 127.38 and was conducted among students in Australia (n = 372) (17). Another similar study using a similar instrument was conducted by Gorczyński et al. (34) in the south of England and showed higher mean MHL scores compared to the current study. The study among UK university students (n = 379) reported a mean score of 122.28 (34). In the result and discussion of this study, the level of mental health literacy is measured by calculating the participants' mean scores. However, as there were differences in the populations across the comparative studies, in which most of the other studies' populations were adolescents, university students, the general population, and caregivers

of mental illness patients, hence, it is advisable to interpret the result of the MHL parents of children with ASC with caution.

Limitations

The present study addresses a few limitations, including a small sample size restricted to parents that attended intervention centers in the Klang Valley area. Further, the research focused on descriptive studies. Hence, it may not be possible to generalize and compare the study's results to a broader population. Future research should prioritize bigger sample sizes to identify the association between MHL and other variables that may be helpful to understand in depth about this issue. Despite these limitations, this preliminary study would benefit the future larger study scale on MHL of parents of children with ASC.

Conclusion

In conclusion, the study showed that participants were mostly aware of mental illness. However, most participants had stigmatizing beliefs about social interaction and marriage with people with mental illness. Therefore, there is a pressing need to promote mental health literacy among specific populations to inform and alter caregivers' perceptions of mental illness. Additional research should be conducted to gauge the mental health literacy of both this study sample and Malaysians, in general, to help develop the nation's mental health policy.

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Competing interests

The authors declare that they have no competing interests.

Ethical clearance

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References

1. Cohrs AC, Leslie DL. Depression in parents of children diagnosed with autism spectrum disorder: A claims-based analysis. *J Autism Dev Disord.* 2017; 47:1416-22.

2. Estes A, Olson E, Sullivan K, Greenson J, Winter J, Dawson G, et al. Parenting-related stress and psychological distress in mothers of toddlers with autism spectrum disorders. *Brain Dev.* 2013; 35(2):133-8.
3. Hayes SA, Watson SL. The Impact of Parenting Stress: A Meta-analysis of Studies Comparing the Experience of Parenting Stress in Parents of Children With and Without Autism Spectrum Disorder. *J Autism Dev Disord.* 2013; 43(3):629-42.
4. Iida N, Wada Y, Yamashita T, Aoyama M, Hirai K, Narumoto J. Effectiveness of parent training in improving stress-coping capability, anxiety, and depression in mothers raising children with autism spectrum disorder. *Neuropsychiatr Dis Treat.* 2018; 14:3355-62.
5. Pastor-Cerezuela G, Fernández-Andrés M-I, Pérez-Molina D, Tijeras-Iborra A. Parental stress and resilience in autism spectrum disorder and Down syndrome. *J Fam Issues.* 2020; 42(1):3-26.
6. Padden C, James JE. Stress among Parents of Children with and without Autism Spectrum Disorder: A Comparison Involving Physiological Indicators and Parent Self-Reports. *J Dev Phys Disabil.* 2017; 29(4):567-86.
7. Harper A, Dyches TT, Harper J, Roper SO, South M. Respite Care, Marital Quality, and Stress in Parents of Children with Autism Spectrum Disorders. *J Autism Dev Disord.* 2013; 43(11):2604-16.
8. Henderson C, Robinson E, Evans-Lacko S, Thornicroft G. Relationships between anti-stigma programme awareness, disclosure comfort and intended help-seeking regarding a mental health problem. *Br J Psychiatry.* 2017; 211(5):316-22.
9. Catalano D, Holloway L, Mpofu E. Mental Health Interventions for Parent Carers of Children with Autistic Spectrum Disorder: Practice Guidelines from a Critical Interpretive Synthesis (CIS) Systematic Review. *Int J Environ Res Public Health.* 2018; 15(2): 341
10. Da Paz NS, Wallander JL. Interventions that target improvements in mental health for parents of children with autism spectrum disorders: A narrative review. *Clin Psychol Rev.* 2017; 51:1-14.
11. Tammy Lim, Mae Yue Tan, Ramkumar Aishworiya, Kang YQ. Autism Spectrum Disorder and COVID-19: Helping Caregivers Navigate the Pandemic. *Ann Acad Med.* 2020; 49(6): 384-386
12. White M, Casey L. Helping older adults to help themselves: the role of mental health literacy in family members. *Aging Ment Health.* 2017; 21(11):1129-37.
13. Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health literacy": a survey of the public's ability to recognize mental disorders and their beliefs about the effectiveness of treatment. *Med J Aust.* 1997; 166(4):182-6.
14. Kutcher S, Wei Y, Coniglio C. Mental Health Literacy: Past, Present, and Future. *Can J Psychiatry.* 2016; 61(3):154-8.
15. Munawar K, Abdul Khaiyom JH, Bokhary IZ, Park MS-A, Choudhry FR. A systematic review of mental health literacy in Pakistan. *Asia Pac Psychiatry.* 2020; 12(4):e12408.
16. Kickbusch I, Nutbeam D. A watershed for health promotion. *Health Promot Int.* 2017; 32(1):2-6.
17. O'Connor M, Casey L. The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. *Psychiatry Res.* 2015; 229(1-2):511-6.
18. Furnham A, Hamid A. Mental health literacy in non-western countries: a review of the recent literature. *J Ment Health.* 2014; 19(2):84-98.
19. Ibrahim N, Amit N, Shahar S, Wee LH, Ismail R, Khairuddin R, et al. Do depression literacy, mental illness beliefs and stigma influence mental health help-seeking attitude? A cross-sectional study of secondary school and university students from B40 households in Malaysia. *BMC Public Health.* 2019; 19(Suppl 4):544.
20. Ibrahim N, Safien AM, Siau CS, Shahar S. The Effectiveness of a Depression Literacy Program on Stigma and Mental Help-Seeking Among Adolescents in Malaysia: A Control Group Study With 3-Month Follow-Up. *INQUIRY-J HEALTH CAR.* 2020; 57: 1-10.
21. Samar N, Perveen A. Relationship Between Mental Health Literacy And Help Seeking Behavior Among Undergraduate Students. *Int J Acad Res Bus Soc Sci.* 2021; 11(6):216-230.
22. Singh S, Zaki RA, Farid NDN, Kaur K. The Determinants of Mental Health Literacy among Young Adolescents in Malaysia. *Int J Environ Res Public Health.* 2022; 19(6): 3242.
23. Poreddi V, R BI, Thimmaiah R, Math SB. Mental health literacy among caregivers of persons with mental illness: A descriptive survey. *J Neurosci Rural Pract.* 2015; 6(3):355-60.
24. Phoa PKA, Razak AA, Kuay HS, Ghazali AK, Rahman AA, Husain M, et al. The Malay Literacy of Suicide Scale: A Rasch Model Validation and Its Correlation with Mental Health Literacy among Malaysian Parents, Caregivers and Teachers. *InHealthcare.* 2022; 10(7):1304.
25. Javed A, Lee C, Zakaria H, Buenaventura RD, Cetkovich-Bakmas M, Duailibi K, et al. Reducing the stigma of mental health disorders with a focus on low- and middle-income countries. *Asian J Psychiatr.* 2021; 58:102601.
26. Siti Nor Amirah M.H., Husna H., Muhamad Afnan A., Suriani I., M.N AIN. Sociodemographic Factors of Mental Health Literacy Among Housewives Living in Low Cost Apartments in Puchong, Selangor, Malaysia. *Malays J Med Health Sci.* 2020; 16(1):121-5.
27. Davidson D. An Exploration of Mental Health Literacy Among Parents of School-Aged Children (Master's thesis). 2019.

28. Jafari A, Nejatian M, Momeniyan V, Barsalani FR, Tehrani H. Mental health literacy and quality of life in Iran: a cross-sectional study. *BMC Psychiatry*. 2021; 21(1):499.
29. Almanasef M. Mental Health Literacy and Help-Seeking Behaviours Among Undergraduate Pharmacy Students in Abha, Saudi Arabia. *Risk Manag Healthc Policy*. 2021; 14:1281-6.
30. Waldmann T, Staiger T, Oexle N, Rüsche N. Mental health literacy and help-seeking among unemployed people with mental health problems. *J Ment Health*. 2020; 29(3):270-6.
31. Ploeg J, Markle-Reid M, Valaitis R, McAiney C, Duggleby W, Bartholomew A, et al. Web-Based Interventions to Improve Mental Health, General Caregiving Outcomes, and General Health for Informal Caregivers of Adults With Chronic Conditions Living in the Community: Rapid Evidence Review. *J Med Internet Res*. 2017; 19(7):e263.
32. Kim H, Paige Powell M, Bhuyan SS. Seeking Medical Information Using Mobile Apps and the Internet: Are Family Caregivers Different from the General Public? *J Med Syst*. 2017; 41(3):38.
33. Jia X, Pang Y, Liu LS. Online Health Information Seeking Behavior: A Systematic Review. *Healthcare (Basel)*. 2021; 9(12): 1740.
34. Gorczynski P, Sims-schouten W, Hill D, Wilson JC. Examining mental health literacy, help seeking behaviours, and mental health outcomes in UK university students. *J. Ment Health Train Educ Pract*. 2017; 12(2):111-20.