

Predictors Associated With Mental Help Seeking Attitude Among Malaysian College Foundation Students in the Midst of Covid-19 Pandemic: a Cross Sectional Study

Nur Nadhirah Mesran

Universiti Teknologi MARA

Suraya Abdul-Razak (✉ suraya617@uitm.edu.my)

Universiti Teknologi MARA

Azlina Wati Nikmat

Universiti Teknologi MARA

Research Article

Keywords: Mental health seeking attitude, adolescent, Coronavirus disease-2019, (COVID-19), self-stigma, Malaysia

Posted Date: February 9th, 2023

DOI: <https://doi.org/10.21203/rs.3.rs-2538855/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Background

Globally, the Coronavirus Disease-2019 (COVID-19) pandemic results in major psychological sequelae across age groups including adolescents. Mental illness rates are high, yet mental help seeking attitude (MHSA) among adolescents is evidently low in developed countries during the pandemic. However, data is scarce in developing countries, hence the aim of this study was to determine the MHSA and its predictors including psychological wellbeing of Malaysian college foundation students during the COVID-19 pandemic.

Methods

A cross sectional study was conducted among college foundation students, aged 18 to 19 years old, from a private college in Klang Valley from 1st December 2021 until 30th March 2022. All college foundation students were invited, and eligible students completed self-administered online questionnaires. Data on MHSA, sociodemographic, clinical factors, availability, accessibility and affordability of mental health service, mental health literacy, self-stigma of seeking help and psychological wellbeing were collected. An independent T-test analysis was performed to compare mean of MHSA between psychological distressed and non-psychological distressed. Multiple linear regression analysis was done to identify predictors of MHSA.

Results

345 participants completed the questionnaires and the response rate was 62.9%. The mean age was 18.7 (± 0.75) years old. More than half were female (64.3%, $n=222$) and a majority had no past history of mental health illness (95.1%, $n=328$). Almost half had personal history of COVID-19 infection (49.3%, $n=170$). The mean of MHSA was 50.98 ± 10.39 . The predictors associated with MHSA were; self-stigma of help seeking ($\beta=-0.59$ (95% CI: -0.76, -0.42) $p<0.01$); mental health literacy ($\beta=0.22$ (95% CI: 0.13, 0.30) $p<0.01$); and affordability of mental health service facility ($\beta=3.29$ (95% CI: 1.42, 5.16) $p<0.01$). The prevalence of psychologically distressed was 23.2%, (95%CI: 20.4, 26.1), in which psychological distressed had a higher mean of MHSA than that of non-psychological distressed (53.29 ± 10.48 vs. 50.29 ± 10.29 , $p=0.02$)

Conclusion

Mental help seeking attitude among Malaysian college foundation students was low during the COVID-19 pandemic. This may result in lost opportunities for early diagnosis and treatment. Strategies to reduce self-stigma of seeking help for mental illness is vital, while efforts to educate young adults about mental health and make mental health services affordable are warranted.

Background

The World Health Organization (WHO) declared Coronavirus Disease-2019 (COVID-19) as a public health emergency of international concern and a global pandemic in March 2020. Strict safety and quarantine measures to avoid virus spread and to protect public health, was urged worldwide and had resulted in lockdown in many countries (1, 2). Malaysia has taken unprecedented steps to respond to this public health threat by commencing the Movement Control Order (MCO) from 18th March 2020 until 1st November 2021 (3). Physical restrictions encompassed restriction on movement, assembly, international travel and multiple institutional closure like education, business and industries were implemented. This had brought major impact on economic, social, environmental and mental health.

Psychological impact due to lockdowns was profoundly seen in all communities including among healthcare workers, elderly, working adults, young adults and adolescents during the pandemic (4, 5). Young adults, in the period between ages 18 and 24 years, specifically the university students are vulnerable groups as they are stormed with numerous stressors that lead to depression and anxiety while facing significant cognitive, social, emotional development and adjustment to physical changes (6, 7). In China, an increase incidence of depression, anxiety and trauma was seen among university students, with 14.4% exhibited post-traumatic stress disorders during the peak of the COVID-19 pandemic (8). Meanwhile, in Malaysia more than half of undergraduate university students were psychologically distressed during the pandemic due to the MCO (9). The incidence of suicide among young adults had increased from 3–6% in 2021, during the pandemic (10).

Mental help seeking attitude (MHSA) among adolescents is known to be low despite high mental health illness rates globally (11). MHSA is defined as seeking help with regards to any mental health concern through assessment, getting a proper diagnosis and subsequently management and intervention by professionals (12). In countries like Norway and Germany, only 23% and 18% of adolescents who suffered from anxiety and depression seek help from mental health professional (13). Meanwhile in Australia, only 18 to 24% of adolescents sought professional help for symptoms of depression and anxiety in 2005 (14). In 2019, the MHSA of Malaysian secondary school students was $48.93, \pm 9.1$ (15), which was lower than that of in Saudi (16). Factors such as stigma and negative health belief towards mental health services and professionals were found to be barriers towards MHSA, while previous positive experience with mental health service and mental health literacy were facilitators (11). Ibrahim *et al.* found higher self-stigma of seeking professional help and younger age were barriers towards MHSA among secondary school and university students from low-income households (12).

A systematic review found the mental help seeking among adolescents mainly among university students in developed countries such as China, Germany and Australia seen further, delays, deficits and decreases during the COVID-19 pandemic (17). Factors such as having premorbid history of mental health illness, higher mental health literacy and being psychologically distressed were associated with better MHSA during the COVID-19 pandemic among adolescents (18, 19). While, poor access to mental health services due to service interruption caused by strict physical restriction during lockdowns was the biggest barrier of MHSA during the pandemic (17, 18). An ideal mental health service should be easily accessible, affordable and widely available (20). In order, to enhance mental help seeking attitude,

adaptation towards current conventional mental health service such as use of digitalisation of healthcare have shown improved accessibility during the strict physical restriction safety measures among adolescents like during the COVID-19 pandemic, (21).

Nevertheless, data on MHSA during pandemic and its predictors are limited and are mainly from developed countries. Yet, data from developing countries are still scarce. Data also lacks general agreement regarding help-seeking definitions and measurements (22). Therefore, determining MHSA among adolescents and its predictors during pandemic is crucial. Hence, this study aimed to determine the MHSA among adolescents, which were college foundation students and its associated factors as well as to determine their psychological wellbeing during the Covid-19 pandemic.

Methods

Study Design and Setting

A cross sectional study was conducted from 1st December 2021 until 30th March 2022 among Malaysian college foundation students in Klang Valley. The college is privately funded and accredited by the Malaysian Qualification Agency (MQA). It is equipped with various facilities such as hostels, library, health center, counselling center and cafes. The campus size is 7466 acres and it can accommodate approximately 2500 students per year from various courses. Programmes or courses that are offered by this college includes pre-university or foundation courses, diploma courses and other international professional courses. Several foundations or pre-university courses are available such as A-Level (UK), A-Level German (ALG), American Degree Transfer Programme (ADTP, South Australian Certificate of Education (SACE) International Programme, Korean Preparatory Course and Japanese Preparatory Course. These foundation courses are the general preparatory courses prior pursuing an overseas tertiary education. The duration of the foundation courses varies from nine to 12 months for which new student enrollment is twice per year, mainly in January and August.

Participants and sampling

The source of the study population was Malaysian college foundation students from a private college, defined as students age 18 to 19 years old, who underwent any of the college foundation courses, either an A-Level (UK), A-Level German (ALG), American Degree Transfer Programme (ADTP), South Australian Certificate of Education (SACE) International Programme, Korean Preparatory Course or Japanese Preparatory Course. Students who were able to understand spoken and written Malay language were eligible to participate in the study. Meanwhile, the exclusion criteria were those with an established diagnosis of chronic illnesses like diabetes mellitus, hypertension, cancer, or any other chronic illness.

All students (n = 650) who were enrollment batch of August 2021 into the various foundation programmes offered at the college were invited to join the study via email. Only 409 students responded and they were screened for eligibility. 345 students were eligible and completed the online questionnaire and included into the final analysis (see Fig. 1 below). Online survey questionnaire in the form of

Google® Form was conducted, to accommodate most students who were still using online learning platforms during the COVID-19 pandemic period.

Sample size calculation

The sample size was determined using a single mean formula based on the mean of mental help seeking attitude among adolescents and university students ($48.93, \pm 9.1$), by Ibrahim *et al*, (6) with a standard deviation of 9.1, a 95% confidence interval (CI) and margin of error of ± 1 , the minimum required sample size was 315.

Variables definitions

The dependent variable for this study was the mean score of MHSA. While the independent variables were sociodemographic characteristics (e.g., age, gender, parental relationship status, family income and participants' current learning place), clinical factors (i.e., history of COVID-19 infection and mental health illness), availability, accessibility and affordability of mental health service facility, mental health literacy, self-stigma of seeking help and psychological wellbeing status. Parental relationship status was categorized as either being married or single parent in which the parent is either a divorcee or a widow. While, family income was defined as household income according to the Household Income & Basic Amenities Survey Report 2019 by the Department of Statistics Malaysia (DOSM). (23) The household income is categorized as: i) bottom 40% (B40) group with household income of less than RM4850; ii) middle 40% (M40) group with household income between RM4850 and RM10959, and iii) top 20% (T20) group with household income of more than RM10960. (23) Participants' current learning place was categorized as either they were attending the online learning platform class at their college hostels or their family's home. Clinical factors such as personal history of COVID-19 infections, family history of Covid-19 infection, personal history of mental health illness and family history of mental health illness were reported as either being present or absent respectively. Meanwhile, the availability of mental health service facility was defined as presence of any mental health service within the participants' residential area (24, 25) and accessibility was defined as mental health services which is easy to access by having a flexible operating hour (24, 25). Finally, affordability was defined as the cost charged by the mental health service is affordable (24).

Study Instruments

The study instruments were in Malay language and consisted of five sections. The first section was the sociodemographic such as age, gender, parental relationship status, family income and participant's current learning place, clinical factors and mental health service availability, accessibility and affordability. Second section was the Mental Help Seeking Attitude Scale (MHSAS), which was used to assess the participants' overall evaluation on getting help from mental health professionals. Third section was the Depression Anxiety Stress Scale 21 (DASS21), which was used to assess the psychological wellbeing of the participants. Section four was the Mental health Literacy Scale (MHLS), which was used to assess the mental health literacy among the participants and lastly, the fifth section

was the Self-Stigma of Seeking Help Scale (SSOSH), which was used to assess self-stigma on seeking help regardless of whether a participant had already been diagnosed with mental health illness or not.

Mental Help Seeking Attitude Scale (MHSAS)

Mental Help Seeking Attitude Scale (MHSAS) was used to measure MHSA. MHSA was defined as seeking help from professionals with regards to any mental health concern by getting a proper diagnosis and subsequently undergoing an intervention and management (26). The questionnaire was developed by Hammer, Parent, and Spiker to assess attitudes toward seeking help from a mental health professional among adolescents (26). It has nine items and used a 7-point semantic differential scale, anchored by bipolar adjectives at either end for example, “unimportant” and “important”. Participants were asked to tick only one circle according to each question, if the participant thinks that seeking help from professionals would be “unimportant”, then he will tick a circle closest to the “unimportant” adjective, which is circle “3” and otherwise. (see Fig. 2) If the participants are not sure, he will have to tick the circle “0”. Marks were given according to the answers given which were from the negative to positive attitude of each item (1–7).

To calculate the total score, it was necessary to reverse items 2, 5, 6, 8 and 9. The score is reported in mean. Higher the mean score indicates more favourable attitudes toward seeking help from mental health professionals. The Malay version of the MHSAS was translated and validated by Ibrahim *et al.* has undergone face, content, discriminant and construct validity using exploratory and confirmatory factor analysis with factor loading ranged from 0.636 to 0.799. The reliability was tested among adolescents age 14 to 19 years old with Cronbach Alpha value of 0.8 (12).

Depression Anxiety Stress Scale 21 (DASS21)

Psychological wellbeing of participants was measured using the Depression Anxiety Stress Scale 21 (DASS21). Psychological wellbeing is defined as an emotional and mental state of an individual (27). DASS21 is a self-administered questionnaire, aimed to assess the psychological wellbeing of an individual. It consists of 21 items using a 4-point Likert-type scale response ranging from 0 to 3 points – (0) did not apply to me at all, (1) applied to me at some degree, or some of the time, (2) applied to me to a considerable degree, or a good part of time, (3) applied to me very much, or most of the time. The elective scoring of DASS21 was used in this study instead of the conventional scoring using categories of depression, anxiety, and stress. For the elective scoring, the total score for each item were multiplied by two as DASS21 was a modified-simpler version of the DASS42. The level of psychological distress was based on the total score calculated which were normal (0–77), mild (78–87), moderate (88–95), severe (96–98) and extremely severe (99–100). Based on the score, those who belonged to the mild, moderate, severe, and very severe category were categorised as psychologically distress, while those who belonged to the normal category were categorized as non-psychologically distress. The Malay version of DASS21 was translated and validated by Ramli *et al.* (28). This instrument showed good reliability among all Malaysian population including adolescents with Cronbach Alpha value of 0.89 (28).

Mental Health Literacy Scale (MHLS)

Mental health literacy is defined as knowledge on mental health illness including knowledge on clinical symptoms, assessment and management (29). Mental health literacy was measured using the self-administered Mental health Literacy Scale (MHLS), which was developed by O'Conner *et al.* and aims to assess mental health knowledge or literacy (29). It consists of 35 items that are divided into four components: i) the ability to recognize disorders and knowledge of risk factors and causes of mental health illness (i.e. Item 1–10); ii) knowledge of self-treatment (i.e. Item 11–12), iii) knowledge about professional help and where to seek information (i.e. Item 13–28), and iv) attitude that promotes recognition or help seeking behavior (i.e. Item 29–35).

Item 1–15 consist of 4-point scale and item 16–35 consists of 5-point scale. For item 1–15, the 4-point scale measures are: (1) very unlikely, (2) unlikely, (3) likely, (4) very likely and (1) very unhelpful, (2) unhelpful, (3) helpful, (4) very helpful. For item 16–35, the 5-point scale measures are: (1) strongly disagree, (2) disagree, (3) neither agree or disagree, (4) agree, (5) strongly agree, and (1) definitely unwilling, (2) probably unwilling, (3) neither unwilling or willing, (4) probably willing, (5) definitely willing. The scoring of this questionnaire is by the total summation of all 35 items. Marks are given according to the numbers stated in each 4-point and 5-point scale. The reversed score items are necessary for items 10, 12, 15 and 20 to 28. The total score ranges from 35–160. The final score was reported in mean value. The higher the mean score, the higher the mental health literacy.

The Malay version of Mental Health Literacy Scale was translated by Suriani *et al.*, showed good reliability among adults population, with a Cronbach Alpha of 0.759 (30). The instrument was never tested among adolescents population in Malaysia. Hence, a pilot study was carried out involving 30 participants, prior the data collection taken place to determine the reliability by using internal consistency analysis. We found the overall Cronbach Alpha was 0.831, while the Cronbach Alpha for each of four domains was 0.710, 0.713, 0.804 and 0.845 respectively. This finding was similarly seen by the original author, O'Conner *et al.*, which revealed four domains with overall Cronbach Alpha value of 0.873 (29).

Self-Stigma of Seeking Help Scale (SSOSH)

Self-stigma of seeking help was measured using the Self Stigma of Seeking Help (SSOSH) questionnaire by Vogel *et al.* (31). This questionnaire aims to assess self-stigma on seeking help regardless of whether an individual has already been diagnosed with a mental illness or not. Self-stigma is defined as reduction of an individual's self-esteem caused by the individual self-labelling himself as someone who is socially unacceptable (31). SSOSH consists of 10 items using a 5-point Likert scale rated from (1) Strongly disagree to (5) Strongly agree. Scoring was made by total summation of all items with reversed scoring of items 2, 4, 5, 7, and 9. Total score ranges from 10 to 50, with maximum score of 50. Higher scores indicate higher level of self-stigma on seeking mental help. The questionnaire has been translated to Malay language with the Cronbach Alpha value among adolescents was of 0.90 (12).

Data Collection

Data collection using online self-administered questionnaire via Google® Form was done after ethical approval and permission from the Director of the college was obtained. The college administrative office helped to send invitation emails to all foundation students (n = 650) with the link of the Google® Form attached. The online forms consisted of study information, consent form and the study instruments. Students who agreed to participate, submitted their online consent form and were screened for eligibility. Eligible participants were encouraged to answer all questions by enabling only completed questionnaires for submission of responses. Modification of responses were not allowed after submission.

Reminder emails were sent twice at two and four-week interval from the initial invitation email. Should there be any enquiries, the participants were asked to contact the main researcher. All responses from the online survey were captured and collected in the Google® Drive. All responses were downloaded and printed hard copies and kept in a folder accessible only by the researchers. All responses stored in Google® drive were deleted after being downloaded.

Data Entry and Statistical Analysis

Data entry and statistical analysis was performed using the IBM SPSS Statistics for Windows, version 27.0. Descriptive statistics summarised the participant's characteristics with numerical variables and questionnaire scores in mean and standard deviation. Normality testing were done for numerical variables using Kolmogorov–Smirnov test. Meanwhile, the categorical variables were measured in frequency, and percentage. Independent sample T-test was used to compare the mean score of MHSA between the psychologically distress and non-psychologically distress groups. In the simple linear regression model, factors with a p-value of < 0.25 were included in the multiple linear regression models to determine the predictors of MHSA and to control for any confounding factors. All independent variables were tested using stepwise, backward, and forward methods. To determine the predictors of MHSA, factors with a statistically significant level of $p < 0.05$ were retained in the final model of multiple linear regression. The final model from the stepwise method was selected and was reasonably fits with all model assumptions were met, and there was no interaction and multicollinearity problem.

Results

Sociodemographic and characteristic of participants

A total of 409 participants responded to participate in the online questionnaires (62.9% response rate). However, only 345 respondents were eligible and included into final data analysis. The mean age was 18.7 years old (± 0.75). More than half were female (64.3%, n=222) and stayed at their hostel (97.1%, n=335). Nearly half of them had previous personal history of COVID-19 infection (49.3%, n=170). (see Table 1 below).

Table 1. Characteristic of participants (n=345)

Characteristics of participants	Frequency, N=345 (n, %)	Mean (SD)
Age (years)		18.7 (0.75)
Gender		
-Male	123 (35.7)	
-Female	222 (64.3)	
Family income		
-Less than RM4859 (B40)	81 (23.5)	
-From RM4850 until RM10959 (M40)		
-More than RM10959 (T20)	104 (30.1)	
	160 (46.4)	
Parental relationship status		
-Single parent (widow or divorcee)	38 (11.0)	
-Married	307 (89.0)	
Home of hostel confinement		
-Hostel/ Campus	335 (97.1)	
-Family house	10 (2.9)	
<u>Clinical factors</u>		
Personal history of COVID-19 infection		
-Yes		
-No	170 (49.3)	
Family members history of COVID-19 infection	175 (50.7)	
-Yes		
-No	69 (20.0)	
	276 (80.0)	
Personal history of mental health illness		
-Yes		
-No	17 (4.9)	
Family members history of mental illness	328 (95.1)	

-Yes		
-No		
	21 (3.1)	
	324 (93.9)	
<u>Mental health service facility</u>		
Available		
-Yes	100 (29.0)	
-No	245 (71.0)	
Affordable		
-Yes	208 (60.3)	
-No	137 (39.7)	
Accessible		
-Yes	215 (62.3)	
-No	130 (37.7)	
Mental health literacy		124.23 (12.14)
Self-stigma of seeking help		23.41 (6.38)

*SD=Standard Deviation, Frequency (Percentage).

MHSA and psychological wellbeing of college foundation students.

The mean score of MHSA was 50.98, \pm 10.39. Meanwhile, the prevalence of psychologically distress participants was 23.2% (95%CI: 20.4, 26.1). Table 2 shows the t-test analysis of MHSA scores between psychologically distressed and non-psychological distressed participants. Those who were psychologically distress participants had a higher mean score of MHSA compared to those who were non-psychologically distress (53.29 vs. 50.29 [95% CI: -5.59, -0.41], $p= 0.023$).

Table 2. Score of MHSA according to psychological wellbeing status

		Psychological wellbeing		Mean difference (95% CI)	*t value (df)	P- value
		Psychological distress	Non-psychological distress			
MHSA	Mean (SD)	53.29 (10.48)	50.29 (10.29)	3.00 (-5.59, -0.41)	-2.277 (343)	0.023

*Independent sample t test. SD=Standard Deviation, **Emboldened:** Statistical significance at $P < 0.05$

Predictors associated with MHSA among college foundation students

Table 3 shows the univariate analysis using simple linear regression (SLR). Factors which were found to be significant and those with P -value < 0.25 were included in multiple linear regression (MLR) analysis. These factors were gender, family income, availability, affordability and accessibility of mental health service facility, personal history of COVID infection, personal history of mental illness, psychological wellbeing, self-stigma of seeking help and mental health literacy.

Table 3. Predictors associated with MHSA among foundation students using Simple Linear Regression (SLR) (n=345)

Variables	<i>Simple Linear Regression</i>	
	<i>B (95% CI)</i>	<i>P-value</i>
Age	-0.24 (-1.70, 1.23)	0.753
Gender		
-Male	Ref	Ref
-Female	4.39 (2.14, 6.65)	<0.001
Family income		
-B40	-1.34 (-4.37, 1.70)	0.39
-M20	Ref	Ref
-T20	-1.50 (-4.08, 1.08)	0.25
Parental relationship support		
-Single parent (widow/divorcee)	Ref	Ref
-Married	-3.13 (-8.93, 2.66)	0.29
Home/ hostel confinement		
-Home	Ref	Ref
-Hostel	0.81 (-5.57, 7.38)	0.806
Personal history of COVID-19 infection		
-Yes		
-No	1.97 (-0.22, 4.12)	0.078
	Ref	Ref
Family members history of COVID-19 infection		
-Yes		
-No	-1.34 (-4.10, 1.41)	0.34
	Ref	Ref
Personal history of mental health illness		
-Yes		
-No	-6.42 (-11.46, -1.37)	0.013
	Ref	Ref
Family members history of mental illness		
-Yes		

-No	-2.21 (-6.82, 2.40)	0.345
	Ref	Ref
<u>Mental health service facility</u>		
Availability		
-Yes	2.11 (-0.31, 4.53)	0.092
-No	Ref	Ref
Affordability		
-Yes	4.53 (2.32, 6.72)	<0.001
-No	Ref	Ref
Accessibility		
-Yes	1.91 (-0.35, 4.18)	0.098
-No	Ref	Ref
Psychological distress		
-Yes	3.00 (0.41, 5.59)	0.023
-No	Ref	Ref
Mental health literacy		
	0.38 (0.30, 0.47)	<0.001
Self-stigma of seeking help		
	-0.83 (-0.98, -0.68)	<0.001

*Ref=Reference group, **Emboldened**: Statistical significance at $P < 0.25$

Table 4 shows predictors associated with MHSA using the MLR analysis. Three predictors were found to be independently associated with MHSA. These were mental health service affordability ($\beta = 3.29$ [CI: 1.42, 5.16], $P = <0.001$), self-stigma of seeking help ($\beta = -0.59$ [95% CI: (-0.76, -0.42], $P < 0.001$) and mental health literacy ($\beta = 0.22$ [95% CI: 0.10, 0.30], $P < 0.001$). Further analysis after regression showed that the model fits reasonably well with all model assumptions satisfied (linearity, independence, normality of the response variable, homoscedasticity, and fit of independent numerical variable). There were no issues with interaction, multicollinearity and outliers. The R^2 value was 0.32, which denoted 32.3% of the associated factors contributed to the variability of MHSA among the foundation students (see Table 4).

Table 4. Predictors associated with MHSA among foundation students using Multiple Linear Regression (MLR) (N=345)

Variables	<i>Multiple Linear Regression</i>		
	Adjusted β (95% CI) ^a	T statistics	<i>P</i> value
Mental health literacy	0.22 (0.10, 0.30)	4.87	<0.001
Self-stigma of seeking help	-0.59 (-0.76, -0.42)	-6.80	<0.001
Affordability of mental health service facility	3.29 (1.42, 5.17)	3.46	<0.001

MLR=Multiple linear regression, SE=Standard error, ^a=Adjusted regression coefficient. **Emboldened:** Statistical significance at $P < 0.05$

$R^2 = 0.323$. Multiple linear regression stepwise method. The model reasonably fits well. Model assumptions are met. There are no interaction, multicollinearity and outliers.

Discussion

We found the mean score of MHSA among college foundation students, during the COVID-19 pandemic was $50.98, \pm 0.39$, which was lower compared to a similar study done among university students in Malaysia during the MCO by Lee *et al.* (i.e. $54.4, \pm 1.09$) (32). This was caused by high psychological distress level during MCO that occurred due to strict physical restriction safety measures, while our study was conducted later and MCO was more relaxed. The MHSA among young adults during the pandemic in developed countries demonstrated a low help seeking attitude. For example, in France the mental help seeking was low among university students, in which only 7% seek mental help from professionals during the pandemic (33). Meanwhile, in Guandong, China where the COVID-19 outbreak was first started in 2019, revealed only less than 1% of their university students sought mental help (34). A systematic review on MHSA among adolescents concluded that MHSA was delayed and decreased during the COVID-19 pandemic (17). The low MHSA is due to adolescents often adopt informal ways to cope by seeking help from friends and family and seldom turn to professional psychological resources for any mental health concern (34). In addition, vulnerable groups including young adults and adolescents often had a higher tendency of having a negative belief towards mental health (13) and a high level of self-stigma that would forbid them to seek professional help (33). With the recent pandemic that occurred, the strict physical restriction safety measures had cause these young adults to further not seeking help due to limited access towards the mental health service and lack of communication with university counsellors, peers and friends (32, 34). As a result, they tend to seek help from the social networks, in which they perceived as very convenient for them (33). Online help-seeking has the potential to meet the needs of young adults with a preference for self-reliance or to act as a gateway to further help-seeking (17).

Three factors were found to be associated with MHSA among the college foundation students. These factors were self-stigma of seeking help, mental health literacy and mental health service affordability. Evidently, self-stigma of seeking help from professionals is a predictor towards MHSA, in which the

higher the stigma the lower the mental help seeking attitude (33, 34). Ibrahim *et al.*, concluded self-stigma of seeking help as the biggest predictor towards MHSA among adolescents and young adults (12). Self-stigma hinders an individual from initiating their first step to seek help or getting treatment for their problems, either through psychiatric management or counselling therapy (12). A higher self-stigma often associated with poor knowledge and negative attitude towards mental health illness leading to poor mental help seeking (35). Several studies demonstrated that those who seek psychological help were scared and feared of being labelled as mentally ill by the community (32, 34, 35). Although, the level of stigma did not increase during Covid-19 pandemic, yet presence of self-stigma among adolescents definitely interfered with tendency to seek professional help on any mental health concerns (36). Immediate measures must be carried out to reduce the self-stigma among this population to encourage them to seek professional help. A reduction of self-stigma toward treatment and greater openness to personally seek professional help was seen after intervention via physical psychoeducation and video education on mental health illness in adolescents during the pandemic (36).

Evidently, mental health literacy was found to be associated with MHSA in our study and other studies (19, 34). Mental health literacy is defined as “knowledge and belief about mental disorder which aid their recognition, management and prevention” (37). A good knowledge would promote recognition on any worrying symptoms of mental health illness and later would lead to tendency to seek professional help. A high mental health literacy is associated with better MHSA among adolescents, which regardless during or prior the pandemic (11, 12, 38). Multiple interventions have been carried out to empower knowledge on mental health illness such as awareness campaign, infographic advertisements and inspirational talks among adolescents in Malaysia (38). A significant increment in depression literacy, decrement of self-stigma and increment of MHSA was seen after a month of lecture, mental health awareness activities, and a short video on depression among Malaysian adolescents (38). However, the results were only sustained for three months. Therefore, this highlights that programmes and interventions aimed to promote mental health literacy in adolescents, need to be long term to ensure optimum literacy is maintained and subsequently enhanced MHSA.

The third factor found to be significantly associated with MHSA among foundation students was mental health service affordability, meanwhile accessibility and availability were found not significant. Limited studies determining the affordability, availability and accessibility of mental health services during pandemic is available. However, many studies reported on low usage of such service during the pandemic mainly due to poor accessibility during lockdown, expensive charges and even unavailability of this service in certain districts. In France, 46% of the university students unable to afford the mental health service charges hence leading to poor mental help seeking (33, 39–41). A dramatic decline in usage of mental health service facility in UK and Canada were seen in the beginning of the pandemic, especially during the lockdown period (19, 42). Introducing an online mental health service to suit the physical restriction safety measures seems to improve accessibility and affordability of such services (43). In Malaysia, teleconsultation services for young adults was introduced at primary and secondary care during the pandemic including for mental health conditions, in which have seen a marked increase in

usage of psychiatric services to 61% in 2020 from 43% in 2019 (44). This service is more convenient towards adolescents as it is easily accessible and definitely more affordable (43).

Our prevalence on psychological distress among college students during the COVID-19 pandemic was lower when compared to a local study done by Kalok *et al* in 2020 (i.e. 23.2% vs. 52.8%) (9). Kalok *et al*, measured the psychological impact of MCO towards undergraduate university students using a different measuring scale called the Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) (9) and this could explain the difference in prevalence between our studies. In addition, the rigid safety regulations implemented during MCO from 18th March 2020 until 1st November 2021, eventually became more relaxed towards 2022 (3), that may explain the lower prevalence in our study as compared to Kalok *et al*. Several studies found psychological distress in young adults was associated with better MHSA (17, 45). Although our study demonstrated psychological distress students had better MHSA than those who were non-psychologically distress, but it was not significant in the final regression analysis. A similar finding also revealed there was no association with MHSA despite increased level of stress among adolescents during the COVID-19 pandemic (46).

The National Strategic Plan for Mental Health (2020 to 2025) has been implemented to empower mental health well-being, to provide intensive care and to increase recovery, reduce mortality, morbidity and disability for person with mental health problems (47). Many measures have been carried out by the government to enhance MHSA among adolescents in Malaysia such as placing a counsellor in every each school and university, performed regular mental state screening, campaign to improve mental health literacy and many more (47). Strategies to strengthen mental health preparedness and services during emergencies, crisis and disasters are relevant during the COVID-19 pandemic. This includes adaptation towards current conventional mental health service facility in Malaysia to more affordable and accessible online service to suit any public health emergency in future. Experience from the recent pandemic has thought us the importance of having an affordable and easily accessible mental health service in the middle of a strict physical restriction safety measures (48). To implement such strategies, views and clinical outcome from service users as well as mental health teams should be identified, in order to design a newly adapted mental health service during any unforeseen global pandemic in future. This newly adapted mental health service should focus to improve mental health literacy, reduce self-stigma of seeking professional help with more affordable service towards young adults in Malaysia (49).

STRENGTH AND LIMITATION

Our study found MHSA and its predictors among college foundations students during the COVID-19 pandemic is an important information to help strengthen mental health preparedness and services especially during public health emergencies or pandemic in the future.

However, this study has few limitations. First, due to the cross-sectional study design, the findings could only show association but not causal relationship between psychological distress level, self-stigma of seeking help, mental health literacy, mental health service facility, clinical factors and various

sociodemographic factors with MHSA. Second, this study was conducted among young adults in a single college, therefore the result may not be generalized to the whole Malaysian adolescents population due to differences in the sociodemographic factors like education level and ethnicity. However, we exercised a universal sampling to overcome this limitation.

IMPLICATIONS ON CLINICAL PRACTICE AND FUTURE RESEARCH.

Findings from this research suggested the importance of having an affordable mental health service facility, high mental health literacy and low self-stigma of seeking help in order to enhance mental help seeking attitude among adolescents. Therefore, future research should explore on the measures to reduce self-stigma, increase mental health literacy and pattern of charges towards current mental health service in order to make it more affordable for adolescents.

Conclusion

Mental help seeking among Malaysian college foundation students was low during the COVID-19 pandemic which may cause delay and declined in diagnosis and treatment rate. Having a high mental health literacy, low self-stigma of seeking help and affordable mental health service facility would enhance help seeking attitude among them. Therefore, measures to reduce self-stigma of seeking help for mental illness is vital, as well as efforts to educate adolescents about mental health and make mental health services affordable are warranted for better MHSA.

Declarations

Ethics approval and consent to participate

The study was designed in compliance with the Ethics Guidelines for Internet Mediated Research by the British Psychological Society (50) and conducted as per the Helsinki Declaration criteria. The ethical approval was obtained from the Research Ethics Committee, Universiti Teknologi MARA (UiTM) (REC/09/2021 (MR/819). All participants had provided an informed consent form after they had agreed to participate in our study.

Consent for publication

Not applicable

Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due ethical consideration but are available from the corresponding author on reasonable request.

Competing interests

The authors declared that they have no competing interests.

Funding

The research received no external funding.

Authors' contributions

Conceptualization, N.N.M., S.A.R, and A.N.; methodology, N.N.M., S.A.R and A.N.; formal analysis, N.N.M.; data curation, N.N.M. and S.A.R; writing—original draft preparation, N.N.M.; writing—review and editing, S.A.R. and A.N; visualization, N.N.M. and S.A.R; supervision, S.A.R and A.N.; project administration, N.N.M. and S.A.R; All authors have approved the published version of the manuscript.

Acknowledgements

We would like to thank all the participants involved in this study.

References

1. Hiscott J, Alexandridi M, Muscolini M, Tassone E, Palermo E, Soultioti M, et al. The global impact of the coronavirus pandemic. *Cytokine & Growth Factor Reviews*. 2020;53:1-9.
2. Ahmad N, MuhdYusoff F, Ratnasingam S, Mohamed F, Nasir NH, MohdSallehuddin S, et al. Trends and factors associated with mental health problems among children and adolescents in Malaysia. *Int J Cult Ment Health*. 2015;8(2):125-36.
3. Standard Operating Procedure (SOP) of Movement Control Order by Ministry of Health Malaysia <https://covid-19.moh.gov.my/faqsop/sop-perintah-kawalan-pergerakan-pkp> [
4. Pedrosa AL, Bitencourt L, Fróes ACF, Cazumbá MLB, Campos RGB, de Brito SBCS, et al. Emotional, Behavioral, and Psychological Impact of the COVID-19 Pandemic. *Frontiers in Psychology*. 2020;11.
5. Chen P, Liu XJ, Wang XQ, Yang BX, Ruan J, Liu Z. Attitude Toward Seeking Professional Psychological Help Among Community-Dwelling Population in China. *Front Psychiatry*. 2020;11:417-.
6. Caffo E, Scandroglio F, Asta L. Debate: COVID-19 and psychological well-being of children and adolescents in Italy. *Child and Adolescent Mental Health*. 2020;25(3):167-8.
7. Arnett JJ, Tanner JL *Emerging adults in America: Coming of age in the 21st century.*, editors. Washington, DC, US: American Psychological Association; 2006. xxii, 340-xxii, p.
8. Wang X, Zhang N, Pu C, Li Y, Chen H, Li M. Anxiety, Depression, and PTSD among College Students in the Post-COVID-19 Era: A Cross-Sectional Study. *Brain Sciences*. 2022;12(11):1553.
9. Kalok A, Sharip S, Abdul Hafizz AM, Zainuddin ZM, Shafiee MN. The Psychological Impact of Movement Restriction during the COVID-19 Outbreak on Clinical Undergraduates: A Cross-Sectional Study. *Int J Environ Res Public Health*. 2020;17(22).
10. The Malaysian Press: Suicide rate among children doubled to 6% in 2021 <https://themalaysianreserve.com/2022/08/29/suicide-rate-among-children-doubled-6-in-2021/>.

11. 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.
12. 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.
13. Gulliver A, Griffiths KM, Christensen H. Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry*. 2010;10(1):113.
14. Rickwood D, Deane FP, Wilson CJ, Ciarrochi J. Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health*. 2005;4(3):218-51.
15. Mahsoon A, Sharif L, Banakhar M, Alasmee N, Almowallad E, Jabali R, et al. Parental Support, Beliefs about Mental Illness, and Mental Help-Seeking among Young Adults in Saudi Arabia. *Int J Environ Res Public Health*. 2020;17(15).
16. 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.
17. Yonemoto N, Kawashima Y. Help-seeking behaviors for mental health problems during the COVID-19 pandemic: A systematic review. *Journal of Affective Disorders*. 2023;323:85-100.
18. Junus A, Kwan C, Wong C, Chen Z, Yip PSF. Shifts in patterns of help-seeking during the COVID-19 pandemic: The case of Hong Kong's younger generation. *Social Science & Medicine*. 2023;318:115648.
19. Spagnolo J, Beauséjour M, Fleury M-J, Clément J-F, Gamache C, Sauvé C, et al. Perceptions on barriers, facilitators, and recommendations related to mental health service delivery during the COVID-19 pandemic in Quebec, Canada: a qualitative descriptive study. *BMC Primary Care*. 2022;23(1):32.
20. Launer J. What would an ideal mental health service for primary care look like? *London journal of primary care*. 2011;4(1):49-54.
21. Mental Health Care Goes Online: Practitioners' Experiences of Providing Mental Health Care During the COVID-19 Pandemic. *Cyberpsychology, Behavior, and Social Networking*. 2020;23(12):860-4.
22. Divin N, Harper P, Curran E, Corry D, Leavey G. Help-Seeking Measures and Their Use in Adolescents: A Systematic Review. *Adolescent Research Review*. 2018;3.
23. Household Income Estimates And Incidence Of Poverty Report, Malaysia, 2020. 2020.
24. Medical Development Division Ministry Of Health Malaysia Level 2 Be. *Psychiatric And Mental Health Services Operational Policy*. 2011.
25. 2009 WHO. Improving health systems and services for mental health. (Mental health policy and service guidance package). 2009.

26. Hammer JH, Parent MC, Spiker DA. Mental Help Seeking Attitudes Scale (MHSAS): Development, reliability, validity, and comparison with the ATSPPH-SF and IASMHS-PO. *Journal of Counseling Psychology*. 2018;65(1):74-85.
27. Ahmad NS, Hamsan N, Sutatminigsih R, Sibarani R, Zulkarnain I. Inner Strength And Psychological Well-Being Of Students In Malaysia And Indonesia During The Covid-19 Pandemic. *Journal of Positive School Psychology*. 2022;6(10):1085-101.
28. RAMLI MUSA MAF, & ZAINI ZAIN Translation, validation and psychometric properties of Bahasa Malaysia version of the Depression Anxiety and Stress Scales (DASS). *ASEAN Journal of Psychiatry* 2007;8 (2):82-89.
29. O'Connor M, Casey L. The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. *Psychiatry Research*. 2015;229(1):511-6.
30. Siti Nor Amirah M.H. HH, Muhamad Afnan A, Suriani I, Ahmad Iqmer Nashriq M.N. Sociodemographic Factors of Mental Health Literacy Among Housewives Living in Low Cost Apartments in Puchong, Selangor, Malaysia. *Malaysian Journal of Medicine and Health Sciences* (eISSN 2636-9346). *Mal J Med Health Sci* 16(1): 121-125, Jan 2020.
31. Vogel DL, Wade N, Haake S. Measuring the Self-Stigma Associated With Seeking Psychological Help. *Journal of Counseling Psychology*. 2006;53:325-37.
32. Lee, X., & Ho, K. H. (2021). Help-Seeking Behaviour of University Students During Covid-19 Pandemic: Psychological Openness, Indifference to Stigma, Help-Seeking Propensity. *International Journal of Academic Research in Business and Social Sciences*, 11(17), 70–79.
33. Theurel, A. and Witt, A. (2022) Identifying Barriers to Mental Health Help-Seeking in French University Students during the Covid-19 Pandemic. *Creative Education*, 13, 437-449. doi: 10.4236/ce.2022.132025.
34. Liang SW, Chen RN, Liu LL, Li XG, Chen JB, Tang SY, et al. The Psychological Impact of the COVID-19 Epidemic on Guangdong College Students: The Difference Between Seeking and Not Seeking Psychological Help. *Front Psychol*. 2020;11:2231.
35. Saporito JM, Ryan C, Teachman BA. Reducing stigma toward seeking mental health treatment among adolescents. *Stigma Res Action*. 2011;1(2):9-21.
36. Trusty WT, Swift JK, Higgins HJ. Stigma and Intentions to Seek Psychotherapy Among Primary Care Providers During the COVID-19 Pandemic: A Mediation Analysis. *International Journal of Behavioral Medicine*. 2022.
37. Jorm AF. Mental health literacy: Public knowledge and beliefs about mental disorders. *British Journal of Psychiatry*. 2000;177(5):396-401.
38. Ibrahim N, Mohd Safien Ai, 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: The Journal of Health Care Organization, Provision, and Financing*. 2020;57:0046958020902332.

39. Aida J, Azimah M, Mohd Radzniwan A, M YI, Ramli M, Khairani O. Barriers to the utilization of primary care services for mental health problems among adolescents in a secondary school in Malaysia. *Malaysian family physician : the official journal of the Academy of Family Physicians of Malaysia*. 2010;5(1):31-5.
40. Othman S, Kong SZ, Mohd Mydin FH, Ng CJ. Knowledge, utilization and barriers to primary care services for sexual and reproductive health among adolescents in secondary schools in Selangor, Malaysia. *Malaysian family physician : the official journal of the Academy of Family Physicians of Malaysia*. 2019;14(1):10-7.
41. Banks A. Black Adolescent Experiences with COVID-19 and Mental Health Services Utilization. *Journal of Racial and Ethnic Health Disparities*. 2022;9(4):1097-105.
42. Tromans S, Chester V, Harrison H, Pankhania P, Booth H, Chakraborty N. Patterns of use of secondary mental health services before and during COVID-19 lockdown: observational study. *BJPsych Open*. 2020;6(6):e117.
43. Liu S, Yang L, Zhang C, Xiang Y-T, Liu Z, Hu S, et al. Online mental health services in China during the COVID-19 outbreak. *The Lancet Psychiatry*. 2020;7(4):e17-e8.
44. Psychiatry And Mental Health Services Pandemic Report (2020 & 2021).
45. Lustig S, Koenig J, Bauer S, Moessner M, Bonnet S, Becker K, et al. Help-seeking attitudes and behaviours for mental health problems in adolescents before and during the first COVID-19 school closures in Germany. *Early intervention in psychiatry*. n/a(n/a).
46. Upton E, Clare PJ, Aiken A, Boland VC, Torres CD, Bruno R, et al. Changes in mental health and help-seeking among young Australian adults during the COVID-19 pandemic: a prospective cohort study. *Psychological Medicine*. 2021:1-9.
47. Mental Health IPaVaSAS, (MeSVIPP), Section N-CD, Division DC, Ministry of Health Malaysia Level 2 BE, Complex FGA, et al. National Strategic Plan For Mental Health 2020-2025. 2020.
48. Majumdar P. COVID-19, unforeseen crises and the launch of national tele-mental health program in India. *Journal of Mental Health*. 2022;31(4):451-2.
49. Kauer SD, Mangan C, Sanci L. Do Online Mental Health Services Improve Help-Seeking for Young People? A Systematic Review. *J Med Internet Res*. 2014;16(3):e66.
50. (Chair) Dlk, Hewson Dc, Buchanan Pt, Coulson Pn, Branley-Bell Dd, Fullwood Dc, et al. Ethics guidelines for internet-mediated research. 2021.

Figures

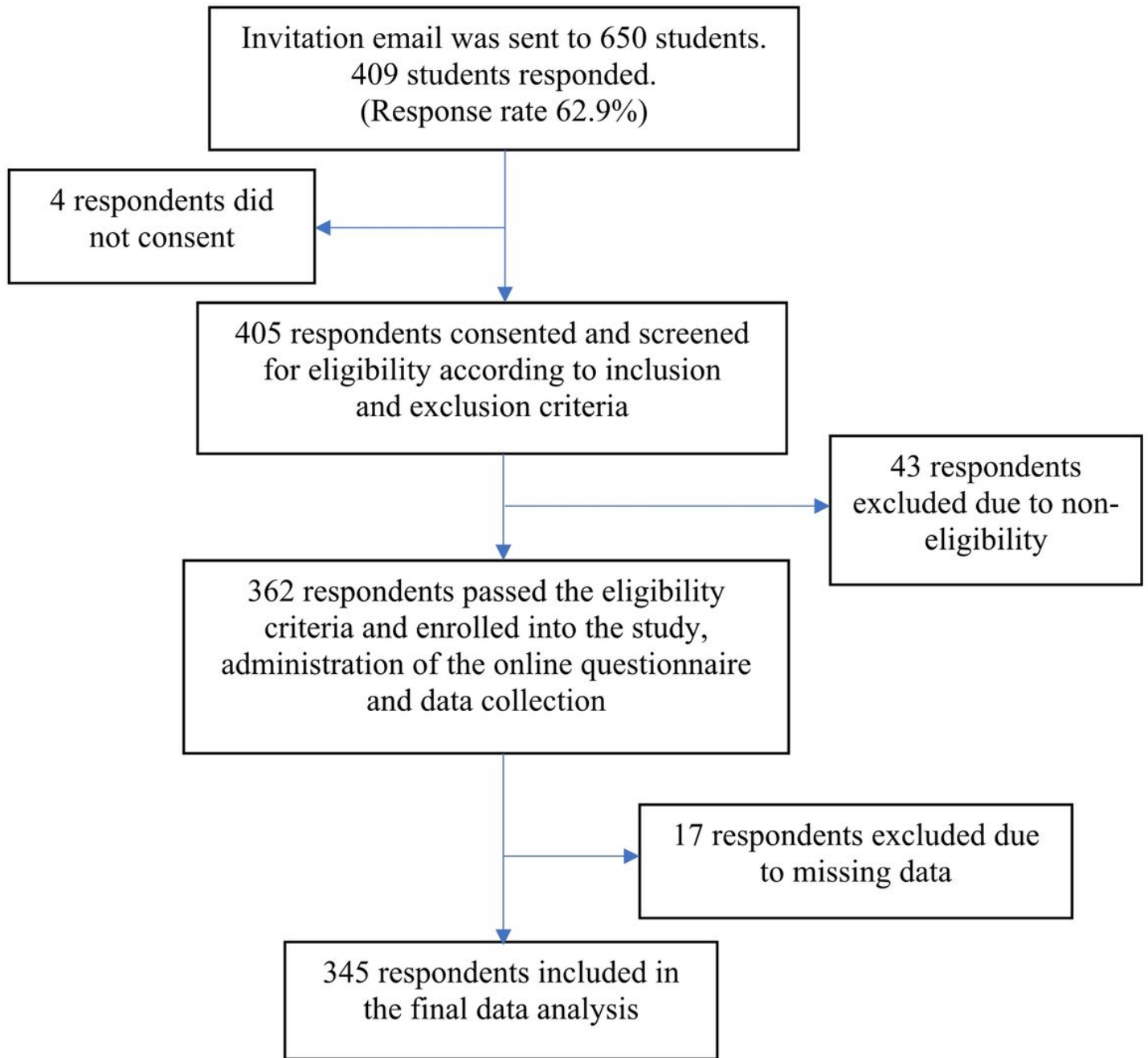


Figure 1

Flowchart of patient recruitment

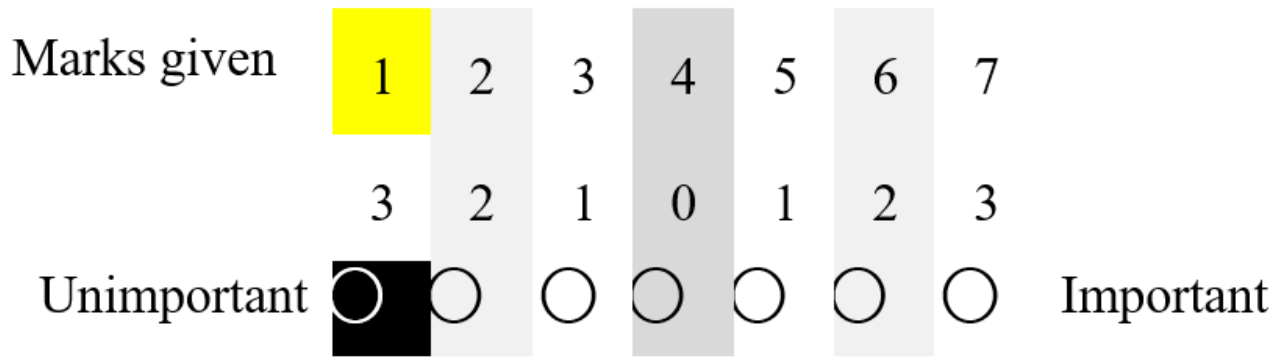


Figure 2

MHSA Scale (MHSAS) scoring