The Level of Mental Health Literacy among Medical Students of Universitas Gadjah Mada: A Study Using Mental Health Literacy Questionnaire-Short Version for Adults (MHLq-SVa)

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Abstract

Background: mental health problem is general challenge for today's and future generation. Prevalence improvement for this problem reveals the importance of early diagnostic in order to improve medication and treatment effectiveness. One of preventive action is by increasing mental health literacy (MHL) that can be measured by applying Mental Health Literacy Short Version for Adults (MHLq-SVa).

Objective: To measure level of mental health literacy among medical students of Gadjah Mada University (UGM) also to reveal relation between sociodemographic toward level of literacy.

Method: The study is descriptive quantitative with cross-sectional method. The questionnaire was distributed to 102 respondents which were active medical students at UGM with convenience sampling method. The data was analyzed descriptively and statistically by applying One-Way ANOVA dan Mann Whitney U.

Result: Level of mental health literacy among medical students of Gadjah Mada University has median value of 72 and average score is 71.0±6.01 with score range of 52-80. The result stated that 56.9% of respondents have high mental health literacy. Results of statistical test showed that years of study and field of study significantly correlate with mental health literacy score with p value less than 0.001. Meanwhile the sociodemographic characteristics of sex (p=0.166), type of residence (p=0.871), monthly expense (p=0.306) and perceived health status (p=0.135) did not show statictically significant correlation with mental health literacy score.

Conclusion: Mental health literacy level among medical students of Universitas Gadjah Mada was relatively high and there was correlation between mental health literacy score and years of study and field of study.

Keywords: Health literacy, mental health, student

1. INTRODUCTION

Health problem or mental disorder is one of global health challenges that has significant impact because of its high prevalence and heavy burden carried out by individual, family, community and country not only at developed countries but also developing one including Indonesia (1). Mental disorder is a health condition that affects the mind, feeling, behavior, mood, or combination of them (2).

It is reported in 2016 that there are 35 million people who suffer from depression, 60 million people suffer from bipolar, 21 million are diagnosed with schizophrenia, and 47.5 million people suffer from dementia worldwide (3). Based on the 2018 Basic Health Research (Riskesdas), depression prevalence among population age≥15 years old was 6.1% which was 12 million people. Emotional Mental Disorder (GME) among people aged 15 years old was 9,8% or as

many as 19 million people, the pravalence of other severe mental health disorders such as schizophrenia was at 7 people per 1000 population or as many as 1,6 million of people (4). In the Special Region of Yogyakarta (DIY), severe mental disorder shows significant increase in the last 5 years since 2013. Results from Riskesdas in 2013 revealed that the number of people who suffer several mental disorders in DIY increased from 2,3 per mil to 10 per mil that means in every 1000 people there is a person with severe mental / psychosis disorder condition (5). Research conducted by Setyanto et.al, (2023) on active students, the result stated that, from 227 respondents, 26,9% (61 students) had mild depression, 18,5% (42 students) suffer from moderate depression, and 9,3% (21 students) had severe or extreme depression. Moreover, 86,8% of total students or 197 students suffered from panic attack with severe category (6). The increasing mental health prevalence shows the urgent need to commence preventive action by implementing early diagnoses toward symptom and signs in order to increase chance of recovery through medication and treatment (7).

One of the relevant ways to prevent mental health disorder is by improving Mental Health Literacy. Mental Health Literacy (MHL) is a concept that covers: (1) knowledge about preventing mental health problem; (2) ability to identify sign and symptom (such as identifying early development disorder); (3) introduction toward options and type of available treatment; and (4) knowledge about self-strategy in accordance with first aid skill to provide support for other individual who experience development and/or mental health disorder (8).

According to the background of study, it is important to get information about the mental health literacy level among young adult's population. This study aims to view mental health literacy description among students in health clusters faculties of Universitas Gadjah Mada. Also, another objective is to find a relationship between respondents' sociodemographic characteristic with level of mental health literacy among medical students of Gadjah Mada University at Special Region of Yogyakarta. Information extracted from this study is expected to be used by healthcare professionals or stake holders as reference in determining proper intervention as preventive action effort concerning mental health status of students in Gadjah Mada University.

2.   MATERIALS AND METHODS

This is a cross-sectional descriptive study In order to measure MHL, the instrument of Mental Health Literacy Questionnaire (MHLq) is applied, a valid and reliable self-report questionnaire is implemented to evaluate mental health literacy from latest and broader point of view, limiting focus of other particular mental health. The questionnaire solved several limitations of other mental health literacy instruments by providing a short, valid, and reliable self-report evaluation based on holistic approach toward this model of questionnaire (9). Mental Health Literacy Questionnaire-Short Version for adults, or MHLq-Sva in short, is a questionnaire developed by Campos and his colleagues in 2022 (10). It is a revised and adapted version of Mental Health Literacy questionnaire for Young Adults (MHLq-YA) in 2018 (9). This questionnaire was then distributed using Google form through social media including WhatsApp from November 2023 to January 2024. Research populations were active medical students of UGM. The minimum number of sample was then calculated with Slovin formula with the margin or error of 10%, and yielded a number of 98 respondents. The sampling technique implemented in this study was Convenience sampling toward undergraduate and postgraduate students of Pharmacy, Dentistry, Medicine, Public Health, and Nursing Faculty. Inclusion criteria include a willingness to fill the questionnaire and to be an active medical student. The data analysis was carried out for the completed information in the questionnaire. The Level of mental health is displayed by using descriptive analysis (High ≥ median and low < median). Relationship between sociodemographic and mental health literacy is analyzed by using One-Way ANOVA and Mann Whitney U test to measure the differences in the MHL score among categorical sociodemographic characteristics. The p value of 0,05 less than 0,05 is considered to be statistically significant.

3. RESULTS

A total of 102 respondents completed the questionnaire. Most respondents were female (62; 60,8%) and were in the fourth years of study. Respondents' distribution based on type of residence showed that majority of respondents do not live in their own house (boarding house, share house, and dormitory) which cover 52.9% of total respondents and the rest, 47.1% live with their family. The percentage of respondents with low expense (<Rp1,500,000) is 66.7%, and the middle-to high category is (≥ Rp1,500,000) or 33.3%. Most of the respondents came from the faculty of pharmacy (65 students (63.7%). While the number of students who came from faculty of medicine, public health, and nursing were as many as 19 people (18.6%) and the respondents from faculty of dentistry were 18 students (17.6%). The majority of the respondents perceived themselves to be healthy (79 respondents;77.5%) (**Table 1**).

Table 1. Respondents' Sociodemographic Characteristic Frequency Distribution

No.	Respondents' Sociodemographic Characteristic	Total (N)	Percentage (%)
1.	Sex		
	Male	40	39.2
	Female	62	60.8
2.	Type of resident in DIY		
	Not in a family house (boarding house, share house, dormitory)	54	52.9
	In a family house/ live with family	48	47.1
3.	Monthly expense		
	< 1,500,000	68	66.7
	≥ Rp1,500,000	34	33.3
4.	Years of study		
	First year	14	13.7
	Second year	12	11.8
	Third year	13	12.7
	Fourth year	39	38.2
	Fifth year	24	23.5
5.	Perceived Health Status		
	Healthy	79	77.5
	Unhealthy	23	22.5
6.	Field of Study		
	Pharmacy	65	63.7
	Dentistry	18	17.6
	Medicine, Public health, and Nursing	19	18.6

The average score on every domain and total score form questionnaire (**Table 2**) shows the median value of total score was 72. The maximum score can be obtained in this study was 80.

Table 2. Mental Health Literacy Score

No	Domain	Median	Average±SD	Respondent's Score Range
1	Knowledge of Mental Health Disorder (P1-P6)	27	26.2±2.83	18-30
2	Incorrect belief / stereotype (P7-P9)	14	13.7±1.56	6-15
3	Capability to find help and first aid (P10-P12)	13	12.7±1.84	5-15
4	Self-treatment strategy (P13-P16)	19	18.4±1.85	12-20
	Total of Median Score Value	72	71.0±6.01	52-80

From normality test results, it showed that the data was not normally distributed. That is why the categorization of mental health literacy level is based on a median value of 72. If the respondent's score is (x) < 72, then it was categorized as a low score of MHL. Meanwhile, if the respondent's score is (x) ≥ 72, then it was categorised as high MHL levels **Table 3** showed the description of respondents' mental health literacy in Gadjah Mada University. The number of 44 students (43,1%) had low level of mental health literacy, and 58 respondents or (56,9%) had high level of mental health literacy.

Table 3. Classification of Mental Health Literacy Level

Level of Mental Health Literacy	Amount (N)	Percentage (%)
Low	44	43.1
High	58	56.9
Total of Respondents	102	100

Further analysis about the relation between sociodemographic and level mental health literacy is tested with one way ANOVA and Mann Whitney test. With this analysis the demographic characteristocs were in categorical data and mental health literacy was set in numerical data. (**Table 4**).

Table 4. Association between Sociodemographic characteristics with the Level of Mental Health Literacy

Sociodemographic Characteristic	N	Mental Health Literacy Score (Mean ± SD)	p-value
Sex[a]			
Female	62	71.5±5.96	0.166
Male	40	70.1±6.05	
Type of residence in Yogyakarta[b]			
In a family house/live with family	48	71.1±6.00	
Not in family house (Boarding House, Share house, Dormitory, etc)	54	70.8±6.07	0.835

Perceived health status [a]			
Healthy	79	71.3±6.25	0.135
Unhealthy	23	69.7±5.02	
Years of study[b]			
First year	14	66.1±3.72	
Second year	12	69.9±5.92	< 0.001*
Third year	13	71.8±3.67	
Fourth year	39	70.9±6.99	
Fifth year	24	73.8±4.73	
Monthly expense[b]			
<Rp1,500,000	68	70.5±6.35	0.306
> Rp1,500,000	34	71.8±5.26	
Field of Study[b]			
Pharmacy	65	71.6±5.68	
Dentistry	18	73.4±4.41	<0.001*
Medicine, Public health, and Nursing	19	66.2±6.14	

[a] *Mann Whitney U* and [b] *One-Way ANOVA*
Statistically significant

4. DISCUSSION

Based on the results of the study, the average score of each domain and total score showed that most respondents had a high level of mental health literacy. Thus, the respondents can be elaborated that they have good knowledge toward mental health. Incorrect belief/stereotype domain, the respondents' median domain is 14 within the score range of 6-15. Score 14 out of 15 maximum score means high value. Thus, it can be concluded that the respondents tend to have positive responds toward mental health disorders. Students will meet each other with various backgrounds and customs. Belief about mental health could be affected by cultural aspect and interaction with people who had been diagnosed with mental disorder (11). Meanwhile, domain of capability finding help and first aid, respondent's' median domain is 13 within score range of 5-15. Score of 14 out of 15 in maximum showed enough value whereas respondents are able to answer questions about helping people around whey they suffer from mental health. Median score on nursing strategy showed score of 19 from maximum score of 20, it can be concluded that respondents are able to provide excellent answers about self-treatment strategy. It is in line with

research conducted by Gold et.al., (2014) who stated that medical students will have their own particular way in dealing with mental health disorders such as working out, sleeping, asking for help to families and friends (12). Also, some medical school students who need help from psychiatrists will directly look for it (12). Next step is categorizing mental health literacy level based on median value of 72. From the total respondents of 102 students, 58 students (56,9%) showed a high level of mental health literacy. This finding is supported by research conducted by Kristina et.al., (2020) who stated that medical students have relatively higher mental health literacy compared to other students of different fields of study (13). It is a result that medical students had already received information about mental health before in their syllabus (14).

According to the results of this study, the relationship between sociodemographic characteristics and mental health literacy level showed that some factors play a significant role, and other factors do not seem to affect significantly. Type of gender does not give significant relation toward level of mental health literacy, with p-value of 0.166, and average score between male and female subject are nearly the

same. It is in accordance with study conducted by (8,16). The type of resident also revealed no significant relation (p-value 0.835), with no such difference in respondents' average score between those who live in temporary houses and those who live in their own house with family. The findings are in contrast with a study conducted by Sutjianto et.al., (2015) (16). Health status also displayed no significant relation (p-value 0.135), this finding provides opposite finding with study by Yu et.al., (2015) (17), but it is in accordance with research done by Bahrami et.al., (2019) and Gorczynski et.al., (2020) (18,19). On the other hand, there is a significant relationship between the years of study with level of mental health literacy (p-value <0.001), whereas students in fourth year of academy showed higher scores. Such findings are supported by study of Kristina et.al., (2020) and Due et.al., (2021) (12,20). Also, the field of study category showed significant relation (p-value <0.001), although it is in contrast with research done by Devraj et.al., (2019) (21). But monthly expense showed no significant result of relationship with level of mental health literacy (p-value 0.306) which is in contrast with research conducted by Yu et.al., (2015) (17). In general, only the year of academy and field of study category showed significant relation with mental health literacy. Characteristics of sex, type of resident, health status, and monthly expense did not show significant correlation.

5. CONCLUSIONS

Most students in health clusters of Universitas Gadjah Mada had high mental health literacy which (56,9%), with the median score of 72 and the average score of 71,0±6,01. There was a relation between mental health literacy scores with of years of study (p=<0.001) and field of study (p=<0.001). There were no significant relation between level of mental health literacy with sociodemographic characteristics of sex (p=0.166), health status (p=0.135), type of resident (p=0.871), and monthly expense (p=0.306).

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