

# Understanding How Gender, Age, and Education Shape Mental Health Literacy Among Health Students at Universitas Muhammadiyah Surakarta

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## Abstract

Mental health literacy is crucial for the well-being of every individual, including students. Given their vulnerability to mental health challenges, it is essential for students to develop a solid understanding of mental health. This study aimed to examine differences in mental health literacy and positive mental health literacy among health students at Muhammadiyah University of Surakarta (UMS), with respect to gender, age, and educational level.

This research employed a comparative quantitative design. The population consisted of 5,125 UMS health students aged 18–25 years. A total sample of 210 students was selected using a quota sampling technique. Data were collected through an online questionnaire distributed via Google Forms and analyzed using ANOVA.

The findings indicated no significant differences in mental health literacy across gender and age groups. However, significant differences were found based on educational level. Additionally, the results revealed no significant differences in positive mental health literacy across gender, age, or education. Overall, the categorization results suggest that health students at Muhammadiyah University of Surakarta possess a relatively high level of mental health literacy.

Keywords: Age; Education; Gender; Mental health literacy

## Introduction

The public generally places greater emphasis on physical health than on mental health (Wardhani, 2017). No specific age group is exempt from the importance of mental health. Fundamentally, the need for mental well-being extends throughout the lifespan (Hasanah, 2017). When experiencing complaints related to physical conditions, individuals are often willing to visit hospitals or nearby healthcare facilities without hesitation. In contrast, psychological health tends to be overlooked (Rachmayani & Kurniawati, 2017).

Mental health refers to a condition in which an individual does not exhibit signs of mental disorders. A mentally healthy individual is able to carry out daily activities normally and adapt effectively to various emerging challenges. However, not everyone is able to adjust and overcome such challenges, which may lead to the development of mental disorders. Impaired mental health can have far-reaching consequences for an individual, including impacts on physical and social well-being (Putri & Ningtyas, 2023). Good mental health is characterized by a state of inner peace and tranquility, enabling individuals to live their lives meaningfully. Individuals with sound mental health can optimally utilize their potential to overcome life's obstacles and maintain relationships with others. Conversely, those with poor mental health often experience difficulties in regulating emotions, mood, and cognitive abilities (Ministry of Health, 2018).

Every individual is susceptible to experiencing mental disorders, including university students, particularly those in unsupportive environments. When students are unable to adapt to their surroundings, they may experience heightened anxiety, fear, and restlessness. Such conditions may also lead to loss of appetite, sleep disturbances, and other related symptoms (Fajrussalam et al., 2022).

A university student is an individual enrolled in a public or private higher education institution, or in another institution equivalent to a university, with the primary purpose of acquiring knowledge (Lubis, 2018). Students are also required to face various demands and new developmental tasks associated with adolescence. Changes occurring across several functional aspects of the individual—including physical, psychological, and social domains give rise to additional demands and developmental tasks for students (Resmadewi, 2016).

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University students are positioned between late adolescence and early adulthood (Fajrussalam et al., 2022). Monks, as cited in Larasati et al. (2019), states that individuals aged 18–21 years are in the stage of late adolescence. Furthermore, Siregar et al. (2022) explains that individuals aged 22–40 years are categorized as being in early adulthood. Individuals within the age range spanning late adolescence to early adulthood are considered particularly vulnerable to experiencing mental health disorders (Kaligis et al., 2021).

According to data from the World Health Organization (2019), more than 700,000 people die by suicide each year, which is equivalent to one person every 40 seconds. Furthermore, a preliminary study conducted by Lalenoh et al. (2021) involving 30 nursing students from a private university in Tangerang revealed that 45% of students experiencing stress believed they would not be able to continue living, 20% felt hopeless, 5% had thoughts of self-harm, and only 30% maintained positive thoughts when faced with stress. Another study by Idham et al. (2022) found that 36 students (58.1%) exhibited a relatively high tendency toward suicidal ideation and attempts. These findings suggest that university students may not necessarily possess adequate understanding and knowledge of mental health, as individuals who are well-informed about mental health are more likely to recognize appropriate actions to take when confronted with problems that affect their psychological well-being.

A study conducted by Nurfadilah et al. (2021) involving 180 UAI students from six different faculties obtained quantitative data showing that 60% (108) of the students had not yet developed full awareness of the importance of seeking professional psychological help. Only 26.7% (48) of the students demonstrated a positive attitude toward seeking psychological assistance, while the remaining 13.3% (24) fell into the low category of help-seeking behavior. Furthermore, qualitative data from 12 respondents revealed that only one student had ever accessed campus counseling services, indicating a lack of knowledge and awareness regarding the importance of psychological services. Maya (2021) reported that the delay in seeking professional help is influenced by several factors, one of which is low mental health literacy. Therefore, mental health literacy among university students is still considered low.

The preliminary survey conducted by the researchers through an open-ended questionnaire administered to health science students at Universitas Muhammadiyah Surakarta revealed that 50% of the 30 respondents reported not knowing about psychological distress. Furthermore, when asked about their understanding of mental disorders, respondents provided statements such as: “Mental disorder is a condition in which a person’s will and heart are in conflict,” “A disorder that can have adverse effects on oneself and is influenced by external factors,” and “A person who has a disturbance in their mind, such as not wanting to eat.” These preliminary findings indicate that several health science students at Universitas Muhammadiyah Surakarta still have a limited understanding of mental health knowledge.

Mental health disorders are frequently experienced by both adolescents and young adults. However, if such disorders can be identified and addressed at an early stage, the likelihood of achieving better outcomes increases. The various cases that arise within communities underscore the importance of understanding mental health disorders for every individual. One approach that can be implemented is the provision of mental health literacy (Kelly et al., 2007). Mental health literacy is essential to enable individuals to better understand physical, emotional, and behavioral changes, as well as to strengthen their capacity to seek professional help for themselves or others in order to enhance mental well-being (Nazira et al., 2022). Jorm (2012) also states that schools, colleges, and universities are effective settings for promoting mental health literacy, as they accommodate high-risk age groups and are inherently focused on education.

Jorm et al. (1997) introduced the concept of mental health literacy as the knowledge and beliefs about mental disorders that can assist in their recognition, management, and prevention. According to Jorm (2000), mental health literacy encompasses: (a) the ability to recognize specific disorders or various forms of psychological distress; (b) knowledge and beliefs about risk factors and causes; (c) knowledge and understanding of self-help or self-care strategies; (d) knowledge and beliefs about professional help; (e) attitudes that support awareness and appropriate help-seeking; and (f) knowledge of how to access mental health information. Jorm (2012) emphasized that individuals need to recognize mental health problems in order to obtain appropriate assistance, including professional help. In addition, Jorm (2012) refined his mental health literacy framework to include knowledge of mental disorder prevention, the course of disorders, help-seeking and available treatments, self-help strategies, and the ability to provide assistance to individuals experiencing mental health problems. Despite its widespread recognition, Jorm’s concept of mental health literacy is considered highly conventional by Chambers et al. (2015), as it places greater emphasis on information and beliefs regarding mental disorders rather than on mental health itself.

Sirgy (2020) posits that positive mental health is fundamentally aimed at enhancing an individual’s mental well-being or quality of life. An individual with positive mental health also demonstrates favorable psychological characteristics, including personal growth, life purpose, environmental mastery, autonomy, positive relationships with others, and so forth. In addition to Jorm’s theory of mental health literacy, other scholars have offered different perspectives on the concept. Bjørnsen et al. (2017) define mental health literacy as the knowledge and competencies necessary to benefit mental health, also serving as a significant determinant of mental health for both individuals and communities. The steps in mental health literacy, according to their view, focus more on knowledge and beliefs about mental health rather than mental disorders. Furthermore, Bjørnsen et al. (2019) assert that mental health literacy is a key factor in determining mental health, which can be enhanced through educational activities. The term “Positive Mental Health Literacy” represents Bjørnsen’s novel perspective, emphasizing the components necessary to attain and maintain good or positive mental health.

Jorm et al. (1997) state that mental health literacy comprises three main aspects: knowledge, beliefs, and attitudes. *Knowledge* refers to an individual's ability to identify mental conditions by understanding how to locate information about mental health, risk factors, causes, and self-treatment for managing mental illness. *Beliefs* represent an individual's stance toward mental health and their willingness to seek help from a professional in the field. *Attitudes* refer to habitual tendencies or dispositions that encourage understanding and appropriate help-seeking for mental health concerns. Meanwhile, according to Bjørnsen et al. (2017), mental health literacy consists of several aspects: (1) *Autonomy*, the individual's need to freely determine their own actions, meaning that the individual is the root or source of their own behavior; (2) *Relatedness*, the feeling of being connected to others or to a community, fostering a sense of belonging; and (3) *Competence*, the individual's ability to control and master the actions they undertake. Individuals need to feel competent and also behave competently when interacting with others, performing tasks, and engaging in activities within a broader context.

Furnham and Swami (2018) identify several factors that can influence mental health literacy, including age, language, gender, education, and access to health information. Age, gender, and education are among the factors that may affect an individual's level of mental health literacy and their help-seeking behavior. Whether or not an individual is in a productive age range can influence their curiosity regarding trends and issues related to mental health. In addition, gender may also affect an individual's sensitivity to mental health matters. Similarly, education plays a significant role in shaping both the level of mental health literacy and help-seeking behaviors among individuals (Amalia et al., 2022).

Research conducted by Asyanti and Karyani (2018) indicates that adolescents still have limited awareness of mental disorders. This lack of awareness results in inadequate knowledge about mental disorders, thereby highlighting the need for programs aimed at improving mental health literacy. Another study by Idham et al. (2019) found that among 501 university students from various institutions across Indonesia, 230 students demonstrated relatively low levels of mental health literacy. This finding aligns with the preliminary survey data obtained by the present researchers, which revealed that several health science students at Universitas Muhammadiyah Surakarta have limited understanding of mental health.

A study conducted by Fatahya and Abidin (2022) found a significant difference in mental health literacy between males and females, with female participants demonstrating higher mental health literacy than their male counterparts. Furnham and Swami (2018) also reported differences in mental health literacy based on factors such as age, gender, education, place of origin, and cross-cultural contexts.

This study aims to examine differences in negative mental health literacy and positive mental health literacy among health science students at Universitas Muhammadiyah Surakarta based on gender, age, and educational background. The study also serves as a scholarly contribution to the field of psychology, particularly in the area of mental health literacy. The hypotheses of this study are as follows: (1) there is a difference in negative mental health literacy between male and female students; (2) there is a difference in negative mental health literacy between students in late adolescence and those in early adulthood; (3) there is a difference in negative mental health literacy among students from the Faculty of Pharmacy, Faculty of Health Sciences, Faculty of Medicine, and Faculty of Dentistry; (4) there is a difference in positive mental health literacy between male and female students; (5) there is a difference in positive mental health literacy between students in late adolescence and those in early adulthood; and (6) there is a difference in positive mental health literacy among students from the Faculty of Pharmacy, Faculty of Health Sciences, Faculty of Medicine, and Faculty of Dentistry.

## **Method**

### ***Design***

This study employed a comparative quantitative research design. Comparative research is conducted to examine the differences that exist between groups (Periantalo, 2019). The dependent variable in this study is mental health literacy, while the independent variables are gender, age, and education.

### ***Participants***

The respondents of this study were active undergraduate students in health-related majors at Universitas Muhammadiyah Surakarta (UMS), from the 2017–2022 cohorts, aged between 18 and 25 years. Overall, the health sciences students at UMS consist of those enrolled in the Faculty of Pharmacy (FF), Faculty of Health Sciences (FIK), Faculty of Medicine (FK), and Faculty of Dentistry (FKG), totaling 5,125 students.

## Procedures

This study employed quota sampling as the sampling technique. Quota sampling is a method in which a predetermined number of respondents is set in advance, and the sampling process is terminated once the quota has been fulfilled (Periantalo, 2019). The sample in this study consisted of 210 students.

## Data Collection

The data collection instruments used in this study were the Mental Health Literacy (MHL) scale for measuring negative mental health literacy and the Mental Health Promoting Knowledge-10 (MHPK) scale for measuring positive mental health literacy. The Mental Health Literacy (MHL) scale, consisting of 26 items, was developed by Jung et al. (2016) based on Jorm et al.'s (1997) negative mental health literacy theory. The Mental Health Promoting Knowledge-10 (MHPK) scale, comprising 15 items, was developed by Bjornsen et al. (2017) based on their own theoretical framework. Prior to use, both scales were translated by three Indonesian nationals who had lived abroad for at least two years and were proficient in English. The scales were administered using Google Forms.

## Data Analysis

This study employed Interrater Agreement to assess validity. A total of six raters participated in the validity testing process. The Interrater Agreement results were then analyzed using the content validity coefficient calculated with Aiken's V formula. The MHL scale developed by Jung and the MHPK scale developed by Bjornsen yielded Aiken's V values ranging from 0.79 to 0.92, indicating acceptable to high validity. Reliability testing of both scales produced satisfactory Cronbach's alpha values. For the Mental Health Literacy (MHL) scale, a Cronbach's alpha of 0.616 was obtained after the removal of items 14, 17, 18, and 20, resulting in 22 reliable items. Meanwhile, the Mental Health Promoting Knowledge-10 (MHPK) scale achieved a reliable Cronbach's alpha value of 0.851. Data analysis in this study employed a Three-Way ANOVA to examine differences in mental health literacy based on gender, age, and education.

## Results

The distribution of the negative mental health literacy scale and the positive mental health literacy scale yielded demographic data and information on the mental health knowledge of health sciences students at Muhammadiyah University of Surakarta (UMS). The respondents in this study were predominantly female, totaling 122 individuals (58.1%). The age range of respondents was between 18–21 years (late adolescence) comprising 116 individuals (55.2%), and 22–25 years (early adulthood) comprising 94 individuals (44.8%). The majority of respondents were from the Faculty of Health Sciences, totaling 100 individuals (47.6%).

Table 1. *Demographic Characteristics of the Respondents*

Demographic Data		<i>F</i>	<i>%</i>
Gender	Male	88	41,9
	Female	122	58,1
Age	18 – 21 years old	116	55,2
	22 – 25 years old	94	44,8
Education	Faculty of Pharmacy	22	10,5
	Faculty of Health Sciences	100	47,6
	Faculty of Medicine	47	22,4
	Faculty of Dentistry	41	19,5

Based on Table 2, it can be observed that the majority of respondents (96.2%) had previously sought information related to mental health. Most respondents reported obtaining mental health information through social media (84.8%) and the internet (81.9%). Furthermore, 53.8% of respondents identified social media as the most influential source in shaping their understanding of mental health.

Table 2. *Mental Health Information*

	Category	F	%
Information Seeking	Ever	202	96,2
	Never	8	3,8
Resource	Social Media	178	84,8
	Internet	172	81,9
	Book	56	26,7
	Professioanal (Psychologist/Psychiatrist)	23	11
	Family	23	11
	Companion	58	27,6
	Lecturer	48	22,9
	Seminar/Webminar	77	36,7
	Never	8	3,8
	The Most Influential Source of Information	Social Media	113
Internet		40	19
Book		6	2,9
Professioanal (Psychologist/Psychiatrist)		12	5,7
Family		2	1
Companion		1	0,5
Lecturer		10	4,8
Seminar/Webminar		18	8,6
Never		8	3,8

Before conducting hypothesis testing, the data must first undergo normality and homogeneity tests. The normality test is performed to determine whether the data are normally distributed. The Kolmogorov–Smirnov normality test for negative mental health literacy yielded a significance value of 0.086 ( $p > 0.05$ ) with a Z-score of 1.254, while positive mental health literacy yielded a significance value of 0.699 ( $p > 0.05$ ) with a Z-score of 0.708. These results indicate that both negative and positive mental health literacy variables are normally distributed.

The Levene’s test of homogeneity for the negative mental health literacy variable yielded a significance value of 0.492 ( $p > 0.05$ ) with an F-value of 0.964, indicating that the variable is homogeneous. In contrast, the positive mental health literacy variable obtained a significance value of 0.035 ( $p < 0.05$ ) with an F-value of 1.841, suggesting that the positive mental health literacy variable in this study is not homogeneous. Nevertheless, an ANOVA test can still be conducted despite the lack of homogeneity. Raharjo (2021) states that homogeneity is not an absolute prerequisite for performing an ANOVA test.

Based on the analysis presented in Table 3, it can be observed that, by gender, there is no significant difference in negative mental health literacy between male and female students, with a significance value of 0.123 ( $p > 0.05$ ). Furthermore, the results indicate no significant difference in negative mental health literacy by age, specifically between students aged 18–21 years (late adolescence) and those aged 22–25 years (early adulthood), with a significance value of 0.785 ( $p > 0.05$ ). However, the results reveal a significant difference in negative mental health literacy based on the field of study, with a significance value of 0.029 ( $p < 0.05$ ). The mean score analysis shows that students from the Faculty of Dentistry have a higher mean score (18.297) compared to other health-related faculties, indicating that dentistry students exhibit higher negative mental health literacy than students from the Faculty of Pharmacy, the Faculty of Health Sciences, and the Faculty of Medicine.

Table 3. *Analysis and Categorization Results of Negative Mental Health Literacy*

Demographic Data	Category						
	N	Mean	F	Sig.	Low	Moderate	High
<b>Gender</b>							
Male	88	17,021	2,397	0,123	0 (0,0%)	13 (14,8%)	75 (85,2%)
Female	122	17,979			1 (0,8%)	17 (13,9%)	104 (85,2%)
<b>Age</b>							
18–21 years old	116	17,299	0,075	0,785	0 (0,0%)	21 (18,1%)	95 (81,9%)
22–25 years old	94	17,798			1 (1,1%)	9 (9,6%)	84 (89,4%)
<b>Education</b>							
FoP	22	17,342	3,058	0,029	0 (0,0%)	5 (22,7%)	17 (77,3%)
FoHS	100	16,663			1 (1,0%)	18, (18,0%)	81 (81,0%)
FoM	47	17,779			0 (0,0%)	5 (10,6%)	42 (89,4%)
FoD	41	18,297			0 (0,0%)	2 (4,9%)	39 (95,1%)

Based on Table 4, it can be seen that there is no significant difference in positive mental health literacy by gender, namely between male and female students, with a significance value of 0.905 ( $p > 0.05$ ). The results also indicate no significant difference in positive mental health literacy by age, specifically between students aged 18–21 years (late adolescence) and those aged 22–25 years (early adulthood), with a significance value of 0.061 ( $p > 0.05$ ). Furthermore, the findings show no significant difference in positive mental health literacy based on field of study, namely among students from the Faculty of Pharmacy, Faculty of Health Sciences, Faculty of Medicine, and Faculty of Dentistry, with a significance value of 0.234 ( $p > 0.05$ ).

Table 4. *Analysis and Categorization Results of Positive Mental Health Literacy*

Demographic Data	Category						
	N	Mean	F	Sig.	Low	Moderate	High
<b>Gender</b>							
Male	88	56,849	0,014	0,905	0 (0,0%)	13 (14,8%)	75 (85,2%)
Female	122	57,775			0 (0,0%)	23 (18,9%)	99 (81,1%)
<b>Age</b>							
18–21 years old	116	55,603	3,547	0,061	0 (0,0%)	29 (25,0%)	87 (75,0%)
22–25 years old	94	59,331			0 (0,0%)	7 (7,4%)	87 (92,6%)
<b>Education</b>							
FoP	22	59,202	1,436	0,234	0 (0,0%)	4 (18,2%)	18 (81,8%)
FoHS	100	55,957			0 (0,0%)	23 (23,0%)	77 (77,0%)
FoM	47	55,644			0 (0,0%)	5 (10,6%)	42 (89,4%)
FoD	41	59,033			0 (0,0%)	4 (9,8%)	37 (90,2%)

Based on Tables 3 and 4, it can be observed that health science students at Universitas Muhammadiyah Surakarta demonstrate high levels of both negative and positive mental health literacy. The categorization results indicate that these students predominantly exhibit high levels of negative mental health literacy, with a proportion of 85.2% among both male and female students. Students aged 18–21 years (late adolescence) and 22–25 years (early adulthood) also show high levels of negative mental health literacy, with proportions of 81.9% and 89.4%, respectively. In terms of field of study, the percentage of students with high levels of negative mental health literacy is 77.3% in the Faculty of Pharmacy, 81.0% in the Faculty of Health Sciences, 89.4% in the Faculty of Medicine, and 95.1% in the Faculty of Dentistry.

The categorization results indicate that health science students at Universitas Muhammadiyah Surakarta possess a high level of positive mental health literacy, with proportions of 85.2% among male students and 81.1% among female students. Furthermore, students aged 18–21 years (late adolescence) and 22–25 years (early adulthood) also demonstrate high levels of positive mental health literacy, at 75.0% and 92.6%, respectively. When examined by field of study, it is evident that the proportion of students with high levels of positive mental health literacy is 81.8% in the Faculty of Pharmacy, 77.0% in the Faculty of Health Sciences, 89.4% in the Faculty of Medicine, and 90.2% in the Faculty of Dentistry.

## Discussion

Based on the data analysis, the negative mental health literacy among health science students at Universitas Muhammadiyah Surakarta (UMS) between male and female students yielded a significance value of 0.123 ( $p > 0.05$ ). This indicates that there is no significant difference in negative mental health literacy between male and female health science students at UMS. The same applies to positive mental health literacy, where the comparison between male and female students yielded a significance value of 0.905 ( $p > 0.05$ ), indicating no significant difference in positive mental health literacy between the two groups. These findings are consistent with the study conducted by Estherita (2021), which reported no difference in mental health literacy between male and female respondents. Similarly, Idham et al. (2019) also found no difference in mental health literacy levels between males and females. This may be attributed to the fact that both male and female health science students at UMS share a similar concern for mental health, as evidenced by 96.2% of the 210 respondents having previously sought information regarding mental health.

The analysis of negative mental health literacy among health science students at Universitas Muhammadiyah Surakarta (UMS) based on age—specifically between students aged 18–21 years (late adolescence) and those aged 22–25 years (early adulthood)—yielded a significance value of 0.785 ( $p > 0.05$ ). This result indicates no significant difference in negative mental health literacy between late-adolescent and early-adulthood health science students at UMS. A similar finding was obtained for positive mental health literacy, where the comparison between students aged 18–21 years and 22–25 years resulted in a significance value of 0.061 ( $p > 0.05$ ), indicating no significant difference between the two age groups. These findings are consistent with the statement of Idham et al. (2019), who noted that university students are generally within the late-adolescent to early-adulthood age range, which can be considered a productive phase of life. This stage enables students to be more active in seeking help and sources of information related to mental health. Furthermore, in an increasingly digitalized era, information on mental health is more readily accessible through online media. UMS students have equal access to information on mental health topics, with most health science students seeking such information via social media (84.8%) and the internet (81.2%). Social media emerges as the most influential source of information shaping UMS health science students' understanding of mental health.

Positive mental health literacy among health science students at Universitas Muhammadiyah Surakarta (UMS) across the Faculties of Pharmacy, Health Sciences, Medicine, and Dentistry yielded a significance value of 0.234. This result indicates no significant difference in positive mental health literacy among students from these faculties. In contrast, the analysis of negative mental health literacy revealed different findings. Based on field of study, the comparison of negative mental health literacy among students from the Faculties of Pharmacy, Health Sciences, Medicine, and Dentistry produced a significance value of 0.029 ( $p < 0.05$ ), indicating a significant difference between these groups. Students from the Faculty of Dentistry exhibited higher levels of negative mental health literacy compared to students from the other faculties. These results are consistent with Furnham and Swami's (2018) assertion that educational background can contribute to differences in mental health literacy. According to Hernawaty et al. (2018), education is a factor that can influence the enhancement of knowledge, enabling individuals to more readily acquire new information. Ramadhany (2018) further states that the dental profession is considered particularly susceptible to stress, making it essential for dentists to possess psychological knowledge that supports their mental well-being. Every student inherently faces high academic demands that can lead to stress, a challenge also faced by health science students at UMS, especially those pursuing medical and dental education. Consequently, students in the Faculty of Dentistry tend to possess mental health knowledge that enables them to recognize mental disorders and maintain their mental well-being.

The categorization results indicate high levels of both negative and positive mental health literacy among the majority of health science students at Universitas Muhammadiyah Surakarta (UMS). These findings suggest that UMS health science students possess an understanding of mental disorders and strategies for maintaining good mental health.

The limitation of this study lies in the unequal distribution of respondents by gender, between late adolescence and early adulthood age groups, as well as across faculties.

## Conclusion

This study aimed to examine differences in negative and positive mental health literacy among health sciences students at Universitas Muhammadiyah Surakarta. The findings revealed no significant differences in either negative or positive mental health literacy based on gender (male vs. female) or age group (late adolescence vs. early adulthood). Similarly, no significant differences were found in positive mental health literacy across faculties (Pharmacy, Health Sciences, Medicine, Dentistry). However, a significant difference in negative mental health literacy was observed across faculties. Overall, the results indicate that health sciences students at Universitas Muhammadiyah Surakarta demonstrate a high level of mental health literacy.

For future research, it is recommended to ensure a balanced number of respondents across faculties to obtain more reliable results. For students of Universitas Muhammadiyah Surakarta, it is advised to further enhance and maintain both negative and positive mental health literacy to safeguard overall mental well-being. Researchers also suggest that mental health topics be more frequently incorporated into seminars or other activities to improve and sustain students' understanding of mental health. At the institutional level, the university is encouraged to actively support initiatives aimed at promoting and maintaining students' mental health literacy.

## Acknowledgement

The authors thank the students of Universitas Muhammadiyah Surakarta for participating in this study.

## Author's contribution

Annisa Andriana Devi: Conceptualization, Methodology, Data Collection, formal Analysis, Writing – Original Draft  
Setia Asyanti: Review & Editing, Supervision.  
Both authors read and approved the final manuscript

## Conflict of interest

Both the first and second authors declare that they have no conflict of interest in relation to the content and publication of this article.

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