

## Mental Health Screening for University Students in the Special Region of Yogyakarta

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### ABSTRACT

**Background:** Mental health disorders occur a lot among students. Failure to overcome mental health conditions during this period can have a serious impact on their academic condition even on their physical and mental health in adulthood. This study aims to screen mental health in students at Muhammadiyah and Aisyiyah Universities located in the Special Region of Yogyakarta.

**Subjects and Method:** This was a cross-sectional study. A sample of 251 students of Muhammadiyah and Aisyiyah Universities in the Special Region of Yogyakarta were selected by accidental sampling. The study variable was emotional mental disorders which were measured using the Self Rating Questionnaire-20 instrument. Respondents who experienced more than seven symptoms were indicated to have a mental-emotional disorder and needed psychological help. The data were analyzed descriptively.

**Results:** The screening results revealed that 104 students (41.43%) were experiencing mental and emotional disorders and required psychological assistance. In terms of the underlying factors of these disorders, 87.50% of students reported feeling easily fatigued (low energy), 70.19% had difficulty making decisions (cognitive), 52.88% felt unhappy (depression), 55.77% experienced abdominal discomfort (physiological), and 79.81% reported feeling nervous, tense, and worried (anxiety).

**Conclusion:** it is recommended that schools provide accessible psychological counseling and implement stress management programs to help students cope with fatigue, anxiety, and decision-making difficulties.

**Keywords:** Mental health, SRQ-20, College student

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### BACKGROUND

Mental disorders are one of the causes of death and disability among adolescents.

Adolescence is an important period in developing social and emotional habits for mental well-being. The consequences of

failing to overcome mental health conditions in adolescence will have an impact on physical and mental health in adulthood. Suicide is the fourth leading cause of death in the age group of 15-29 years based on data from the World Health Organization (WHO) Global Health Estimates 2000-2019 (WHO, 2021, 2023).

Mental health according to WHO is when a person feels healthy and happy, can face life's challenges, can accept others as they should, and has a positive attitude towards themselves and others (Ministry of Health of the Republic of Indonesia, 2022). People with mental disorders in Indonesia reach 9,162,886 cases or as much as 3.7% of the population (Andriani et al., 2022). The economic losses caused by depression and anxiety reached 1 trillion USD due to the loss of human productivity. The prevalence of emotional disorders in 2018 increased to 9.8% based on the results of Riskesdes 2018 (Kurniawati, 2023).

The proportion of mental health sufferers in DIY is mostly aged 15 – 64. That period is adolescence and lectures. Most sufferers are also unmarried (Setyanto et al., 2023). The prevalence of mental health disorders occurs among students (Mengistu, 2021). The phase shift from high school to college is a new step for students followed by various changes such as moving accommodation to be independent, changing social identity, decision-making, financial management, and the formation of social networks. In addition to adapting in terms of lifestyle, students will generally compete in academics. Stress in lectures and exams is associated with stress and poor mental health in students. In final-year students, uncertainty about the future also affects mental disorders that lead to stress, anxiety, and depression (Campbell et al., 2022; Kaligis et al., 2021; Mofatteh, 2021).

The high problem of psychological stress and mental health among students and students compared to the general public shows that there is a need for evaluation and intervention to reduce students' mental stress (Arvant et al., 2021; Mofatteh, 2021). Academic and family stress that leads to poor academic conditions has practical implications for the need for prevention programs and interventions to maintain mental health in the context of school or college (Deng et al., 2022). In line with the Law of the Republic of Indonesia Number 18 of 2014 concerning Mental Health which stipulates that mental health programs must be implemented through promotive, preventive, curative, and rehabilitative efforts.

Surveys or screening for mental disorders in higher education are carried out as an early detection effort with the hope that students who experience symptoms of mental disorders can immediately seek help or help. A study shows that increasing symptoms of depression can significantly increase the search for help. Increased openness will reduce the intention not to seek help. Students who have been diagnosed with a mental disorder are 4.24 times more likely to access support since they are at university. Starting from increasing the intention to seek help, it is hoped that it can increase the chances of accessing support so that it can prevent mental health problems that have an impact on academic studies and more severe conditions such as ending his life (Cage et al., 2020; Crispim et al., 2021). Individuals who exhibit symptoms of depression and/or other mental disorders are at risk of having suicidal behaviors (Demenech et al., 2021).

This research is important because it is the basis for determining university policies to carry out early detection of mental health when students register and screen periodically during their education. In addition, this

early detection can be used as a reference for further treatment. Based on this, this study aims to conduct mental health screening for students at Muhammadiyah and Aisyiyah Universities located in the Special Region of Yogyakarta.

## SUBJECTS AND METHOD

### 1. Study Design

This study is a descriptive research with a cross-sectional design. Observational research used to analyze data variables from the sample population is called cross-sectional design (Sugiyono, 2018). The research was conducted from May to June 2024. The location of the research is Muhammadiyah and Aisyiyah Universities in the Special Region of Yogyakarta, consisting of Ahmad Dahlan University, Muhammadiyah University Yogyakarta, and Aisyiyah University.

### 2. Population and Sample

The population in this study is students of Muhammadiyah and Aisyiyah Universities in the Special Region of Yogyakarta, namely Ahmad Dahlan University, Muhammadiyah University Yogyakarta, and Aisyiyah University. The population in this study was 37,514 people, the research sample was selected by accidental sampling technique with an error rate of 5% and a confidence interval of 95%. The research sample is 251 people.

### 3. Study Variables

The variables studied in this study are single variables. The variable of this study is the mental emotional disorder of students.

### 4. Operational Definition of Variables

The emotional mental disorder referred to in this study is a condition that indicates that an individual experiences emotional changes and if not treated, it can develop into a pathological state.

### 5. Study Instruments

In this study, the data collection method uses a questionnaire. The research questionnaire used Self Rating Questionnaire-20

(SRQ-20). The Self Rating Questionnaire-20 is a questionnaire recommended by the World Health Organization (WHO) to assess the level of emotional and mental disorders. The SRQ-20 questionnaire consists of 20 question items; A score of more than 7 on the questionnaire indicates that the person is under pressure and needs psychological help (Suciati et al., 2023). The questionnaire was made in Google form format and then distributed to students of Muhammadiyah and Aisyiyah Universities in Yogyakarta.

### 6. Data Analysis

Data analysis was carried out by univariate analysis. The emotional and mental state of students is presented in the frequency distribution table. In addition to assessing the overall picture of the level of mental-emotional disorders of students, the results of the study were analyzed based on factors that cause mental-emotional disorders. Data analysis was carried out with the help of SPSS software.

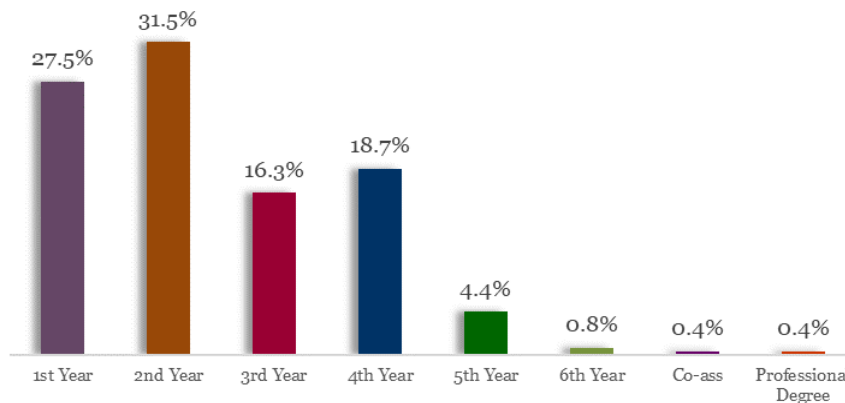
### 7. Research Ethics

This research has received ethical approval from the Research Ethics Committee of Ahmad Dahlan University with Number: 012402033 dated March 7, 2024.

## RESULTS

Screening was carried out on students of Muhammadiyah and Aisyiyah Universities (PTMA) located in the Special Region of Yogyakarta (DIY). These universities include Ahmad Dahlan University, Muhammadiyah University Yogyakarta, and Aisyiyah University Yogyakarta. The number of students who filled out the questionnaire was 251 people, consisting of 69 people in the first year of lectures, 79 in the second year, 41 in the third year, 47 in the fourth year, 13 people have exceeded 8 semesters, 1 person is undergoing co-assistant, and 1 person is pursuing a profession (Figure 1). A total of

86 people are in the process of working on a final project or thesis (Figure 2).



**Figure 1. Distribution of Respondents by Year of Study at PTMA DIY in 2024**



**Figure 2. Distribution of Respondents based on Their Final Undergraduate Coursework**

Based on the results of the screening of emotional mental disorders using the SRQ-20 questionnaire on 251 students, the results were obtained that as many as 104 (41.43%) students experienced emotional mental disorders and needed psychological assist-

ance. Table 1 shows the overview of the Level of Mental and Emotional Disorders of Muhammadiyah and Aisiyah Higher Education Students in the Special Region of Yogyakarta in 2024.

**Table 1. Overview of the Level of Mental and Emotional Disorders of Muhammadiyah and Aisiyah Students in the Special Region of Yogyakarta in 2024 (N=251)**

Variable	b	95% CI		P
		Lower Limit	Upper Limit	
Family Support	0.46	0.19	0.74	0.001
Gender	2.94	-5.22	-0.66	0.011
Education	4.99	2.89	7.09	0.001

The symptoms of emotional mental disorders in SRQ-20 consist of five factors, namely energy, cognitive, depression, phy-

siological, and anxiety factors (Prasetio et al., 2022). The results of the survey were obtained from 104 students experiencing

symptoms of emotional and mental disorders. Based on the energy factor, 87.50% of students experienced fatigue, 77.88% experienced headaches, 72.12% felt tired all the time, 61.54% experienced difficulties in carrying out daily activities, 60.53% had difficulty sleeping, and 53.85% experienced decreased appetite. Cognitively, 70.19% of students experienced difficulties in making decisions, 46.15% felt unable to play an important role in life, but 71.15% of students did not feel suffering in their daily work. Based on depressive factors, approximately half of the respondents felt unhappy

(52.88%) and felt useless (49.04%), and one-third of the respondents had suicidal thoughts (33.65%). Based on physiological factors, almost half of the respondents experienced poor digestion (44.23%) and more than half of the respondents had discomfort in the abdomen (55.77%). Based on anxiety factors, 79.81% of students feel nervous, tense, and worried; 71.15% feel easily afraid; 68.27% have difficulty thinking clearly; 56.73% lost interest in things; 49.04% cry more than usual; and 34.62% experienced shaking hands (Table 2).

**Table 1. Overview of Symptoms of Emotional Mental Disorders based on Mental Health Factors in SRQ-20 for PTMA Students in DIY in 2024**

Category	Number	SRQ-20 Items	Answers			
			Yes		No	
			n	%	n	%
Factor 1: Energy	1	Having headaches	81	77.88	23	22.12
	2	Poor appetite	56	53.85	48	46.15
	3	Difficult sleeping	63	60.58	41	39.42
	11	Finding it difficult to enjoy one's daily activities	64	61.54	40	38.46
	18	Feeling tired all the time	75	72.12	29	27.88
Factor 2: Cognitive	20	Being easily tired	91	87.50	13	12.50
	12	Difficult to make decision	73	70.19	31	29.81
	13	Suffering daily work	30	28.85	74	71.15
Factor 3: Depression	14	Being unable to play a useful part in life	48	46.15	56	53.85
	9	Feeling unhappy	55	52.88	49	47.12
	16	Feeling being a worthless person	51	49.04	53	50.96
Factor 4: Physiology	17	Having the thought of ending one's life	35	33.65	69	66.35
	7	Poor digestion	46	44.23	58	55.77
	19	Having uncomfortable feelings in the stomach	58	55.77	46	44.23
Factor 5: Anxiety	4	Being easily frightened	74	71.15	30	28.85
	5	Hand shaking	36	34.62	68	65.38
	6	Feeling nervous, tense, or worried	83	79.81	21	20.19
	10	Crying more than usual	51	49.04	53	50.96
	8	Having trouble thinking clearly	71	68.27	33	31.73
	15	Having lost interest in things	59	56.73	45	43.27

## DISCUSSION

This research aims to screen mental health in students using the SRQ-20 instrument. The Self Rating Questionnaire-20 is an instrument that is usually used for initial screening in identifying individuals who

experience mental and emotional disorders and need further treatment and evaluation related to their psychiatric conditions (Prahastuti, 2023; Prasetyo et al., 2022). This questionnaire consists of 20 questions and individuals who experience symptoms

of more than seven symptoms are indicated to need psychological help and further support (Pereira et al., 2021).

Screening conducted on 251 students of Muhammadiyah and Aisyiyah Universities in the Special Region of Yogyakarta showed that 41.43% of students experienced symptoms of emotional mental disorders and needed psychological help. In line with previous research which stated that the prevalence of mental health disorders among undergraduate students reached 48.3% (Mengistu, 2021). The results of research on mental health disorders in 8 countries (Australia, Belgium, Germany, Mexico, Northern Ireland, South Africa, Spain, United States) on students found that 35.3% of students experienced anxiety disorders. The results of research in Indonesia have a higher prevalence than these 8 countries (Auerbach et al., 2018). Students are faced with physical, psychological, and environmental transitions to a new environment. This causes them to be vulnerable to having an unhealthy lifestyle and psychological disorders due to a lack of healthy food intake, high stress, pressure to adapt to the college environment, and lack of access to appropriate and quality psychological health counseling (Sheldon et al., 2021).

Symptoms of mental-emotional disorders consist of various factors, namely energy, cognitive, depression, physiological, and anxiety factors. The energy factor is a factor that marks that a person has a decrease in energy both physically and mentally (Prasetyo et al., 2022). The results of the screening showed that most students experienced fatigue and fatigue all the time and experienced headaches. More than half of students who experienced mental and emotional disorders reported having difficulty carrying out daily activities, difficulty sleeping, and experiencing decreased appetite. Sleep disturbances are a risk factor for poor

mental health. Too long sleep duration can predict the onset of depression, while short sleep duration significantly predicts anxiety (Hossain et al., 2019). The highest percentage is in the symptoms of fatigue easily at 87.50%. Fatigue and fatigue are conditions that reflect a decrease in adaptability in stressors. Fatigue indicates that a person's adaptive capacity is almost depleted (Porr et al., 2010).

Mental disorders are also characterized by cognitive impairments that are manifested in difficulty making decisions, loss of interest, and decreased quality of work (Awadalla et al., 2020). Based on cognitive factors, the screening results showed that 70.19% of students had difficulty in making decisions, 46.15% felt unable to play an important role in life, but most students (71.15%) did not feel difficulties in daily work. Psychological pressure in the form of stress can cause a person to find it difficult to make decisions because they are unable to think clearly and have difficulty concentrating (Jain, 2021).

Psychological stress in the form of stress and not managed properly can lead to depression. The depressive factor provides an overview of the symptoms of emotional mental disorders that lead to depressive conditions such as feeling unhappy, feeling worthless, and having thoughts of ending their life or committing suicide. The results of the screening showed that 52.88% of students felt unhappy, 49.04% felt worthless, and a third or 33.65% of students had suicidal thoughts. A study conducted in the United States showed that there was an increase in positive screening results for depression by about 135% and positive screening for anxiety by about 110% in college students from 2013 to 2021 (Lipson et al., 2022). The prevalence of depression is higher in students in their final year and early year of study, the causes include acade-

mic dissatisfaction, lack of participation in social and recreational activities, lack of access to psychological support, and uncertainty about the future (Demenech et al., 2021). Symptoms of depression (OR=1.15; 95% CI=1.10 to 1.19;  $p<0.001$ ), psychosis (OR=1.10; 95% CI=1.04 to 1.15;  $p<0.001$ ), and psychological stress (OR=1.04; 95% CI=1.01 to 1.07;  $p=0.012$ ) are symptoms shown by students who have suicidal tendencies (Akram et al., 2020).

Stress can affect various gastrointestinal functions by delaying gastric emptying while stimulating colon transit and secretion, increasing intestinal permeability and visceral sensitivity, and modifying the gut microbiota (Bonaz, 2016). In SRQ-20 this symptom is described as a physiological factor. Physiological factors describe psychic disorders that affect the digestive system. Almost half of the students or 44.23% in this study experienced poor digestion and more than half or 55.77% of students had discomfort in the stomach. Digestive disorders can occur when individuals are exposed to stressors (Sari & Susmiatin, 2023). The immune system is made up of various mechanisms that provide protection and control from external dangers. In conditions of very high psychological stress, the immune system will be activated and biological defense mechanisms will be formed. If left untreated, stresses and sustained immune responses contribute to comorbid systemic diseases (Iwata et al., 2013).

Many students in this study also experienced symptoms of emotional mental disorders that lead to anxiety. The results of the screening showed that 79.81% of students felt nervous, tense, and worried; 71.15% felt easily afraid; 68.27% have difficulty thinking clearly; 56.73% lost interest in things; 49.04% cried more than usual; and 34.62% experienced shaking hands. Mental disorders can be characterized by feeling sad

for a long time and losing interest in activities that they like (Asika, 2020). Determinants of anxiety in students include the college year (high prevalence in the early and middle years of college), dissatisfaction with lectures, difficulty making friends, and having difficulty adapting to the city where they are studying (Demenech et al., 2021). In this study, there are 27.5% of students who are in the first year of college and more than 45% of students are in the middle of the college year, namely the second and third years. Untreated anxiety can have an impact on physical and emotional problems that lead to a decline in student academic performance (Santos, 2024).

Research on students in Bangladesh shows that 52.2% of people experience moderate to very severe depression, 58.1% experience moderate to very severe anxiety, and 24.9% experience moderate to very severe stress (Mamun et al., 2022). Sources of student anxiety that are classified as sources of extreme and moderate stress according to studies include academic achievement, pressure to succeed, post-study plans, sleep quality, financial problems, relationships with family and friends, appearance, self-esteem, and overall health conditions (Beiter et al., 2015).

Final projects can also be a source of concern that increases student stress levels. In this study, there are 34.26% of students who are in the process of preparing a thesis or final project and a small number of them have exceeded the study period to be able to graduate on time. A study stated that there was a strong correlation between stress levels and the incidence of Generalized Anxiety Disorder (GAD) in final-year students. The results of the review of respondents' answers, student stressors were sourced from lecture assignments and final projects (lack of communication with supervisors, the habit of postponing the final

project, and fear of facing the thesis exam) (Angelin et al., 2021). Universities and lecturers need to understand psychological stressors in the educational environment. Curriculum design, course coordination that rationalizes and regulates academic workloads will provide mental health benefits for students (Larcombe et al., 2022).

This study has limitations, including that the answers submitted by the respondents are only limited to what is asked in SRQ-20. In addition, this study is also limited to self-reporting by students because the questionnaire is distributed using a Google form so that it cannot be seen directly by the researcher in the filling process. Further research is needed to assess the symptoms of emotional mental disorders in students based on what students feel and dig deeper into the causes qualitatively.

This study concludes that there are many students (41.43%) who experience mental and emotional disorders and need psychological help or further support. Students spend most of their time at the university, so there is a need for a change in the university environment to be at the forefront of caring for students' mental health. Public policies that consider mental health in the university environment are indispensable (Crispim et al., 2021). This policy requires support from various parties so that cooperation from the entire university academic community is needed to seriously commit to tackling problems related to mental health issues in students.

#### **AUTHOR CONTRIBUTION**

Substantial contributions to conception and design (FDA, RR, BKU), collecting data (FDA, MJH, WRD) analysis and interpretation of data (AA); drafting the manuscript (AA, FDA); editing and final approval of the version to be published (FDA, SKW, AA).

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#### **CONFLICT OF INTEREST**

There is no conflict of interest in this study.

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