Assessment of demographic factors and mental health status: initiating a healthy campus program

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Article Info

ABSTRACT

Mental health issues have been essential in formulating global health policies for 30 years. The campus community is inseparable from the problem of mental health disorders, which can affect the work either students, lecturers, or staff. This research aimed to describe mental health conditions among the campus community based on demographic factors as an opportunity to initiate a healthy campus program. This study used a quantitative method with a cross-sectional design. The population was an academic community at a private campus in Yogyakarta, Indonesia. There are 347 samples taken by accidental sampling. The mental health instrument used the self-reporting questionnaire. There, 60.81% of respondents experienced psychological disorders, and 73.49% of respondents needed to be referred to a mental health professional regarding addiction, psychotic disorders, and post-traumatic stress disorder (PTSD). There was a significant relationship between demographic factors consisting of gender, age, type of work, employment status, education level, faculty, and emotional disorders with a p-value of <0.005. Moreover, age, gender, education level, type of work, and employment status related to mental disorders due to addiction, psychosis, and PTSD with a p-value<0.005. It is concluded that a large proportion of responders need a referral to a mental health expert. To promote a healthy campus, university officials should follow up with health promotion initiatives such as partnering with the local health office and public health center for additional treatment and improving policy support.
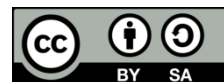
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1. INTRODUCTION

The healthy campus program, known as a health-promoting university, is a systematic and comprehensive effort to realize higher education as an institution that integrates health into its educational culture, reflected through daily activities such as management administration and academic activities [1]. It is crucial to implement clean and healthy living behavior to prevent and avoid infectious diseases, non-communicable diseases, mental disorders, and drugs, to promote a healthy environment, public nutrition, reproductive health, occupational health, and safety, in addition, to strengthen the disease prevention and

control, especially which has the potential to cause extraordinary events [1]. Moreover, the campus should also provide health services including early detection, counseling, guidance, and referrals carried out by Health Service Facilities located on campus or in collaboration with those outside campus [1], [2].

One of the healthy campus programs is mental health promotion. Mental Health is a condition where an individual can develop physically, mentally, spiritually, and socially so that the individual realizes his/her abilities, can overcome pressure, work productively, and can contribute to his/her community [3]. Among mental health problems that frequently occur in society is depression. Depression is a serious public health problem. Based on the WHO report, depression ranks 4th and becomes a serious health problem. Suicide as the impact of depressive disorder is one of the public health major concerns. Symptoms of depression, such as feeling worthless, and hopelessness are risk factors for suicide. Up to 55% of people with depression have suicidal thoughts. Depression is characterized by feelings of sadness, low mood, and irritability.

Every year as many as 135 people in suicide cases experience deep sadness, while 108 million people are affected by suicidal behavior. In each case of suicide, as many as 25 people attempt suicide and others think about committing suicide [4]. In the year 2018, Basic Health Research (*Riskesdas*) reported Yogyakarta Province ranks as the second highest suicide in Indonesia, namely 10% and the prevalence of depression based on age 15 years and over 15 years old is 6% [5].

It is very important to maintain the mental health of students and the academic community. One of the efforts is carrying out early detection of mental health. Early detection of mental disorders must be widely promoted to the community, including in the campus environment, so that there are no delays in therapy or treatment in the early phase. One of the health service facilities that facilitate early detection of mental health for the community is the community health center (local public hospital [6] and universities can initiate early mental health detection services through the healthy campus program.

Mental health problems that are triggered by anxiety and stress will lead to disruption of the learning process [7]. Students' mental health during online lectures during a pandemic tends to be disrupted with the distribution of severe mental health disorders more than moderate and mild mental health disorders [8] e.g. student anxiety arises due to repeated conditions in perceiving something negatively, for example, mathematics as a difficult subject because of the abstractness of objects, logical thinking, systematic, symbolic and confusing formulas [9]. Students' anxiety in learning English is their fear of other people's negative judgment, fear of communicating, taking exams, or placement in English classes [10], compared to that research, this research is more in-depth, not only descriptively but also looking at the relationship between variables and the characteristics of different respondent populations. Apart from that, this research does not only involve one context, namely English language education, but also involves mathematics education and public health so that the scope of the research is wider and more diverse. In a preliminary study at the Faculty of Public Health, it was found that several students had mental disorders, such as locking themselves in their rooms to the point where they wanted to commit suicide. In addition, the students in the teaching and education faculties stated that the sources of anxiety were individual factors, self-confidence, and negative perceptions that English was difficult because it was not a second language in Indonesia. In general, these anxieties arise due to a lack of knowledge of mathematics or English, and students' self-confidence in mathematics or English can affect their academic achievement [11], [12]. Based on the explanation above, the research questions are: i) What are the mental health conditions of the campus community based on demographic factors such as gender, age, type of work, employment status, education and faculty origin, and emotional disorders? ii). What is the relationship between demographic factors and the mental health of the academic community; iii). How many people need referral to the mental health professional; What recommendations can be given to the campus authority?

2.   METHOD

This study used a quantitative method with a cross-sectional design. As a pilot project, the research was conducted at a private campus in Yogyakarta City, Indonesia which consists of the Faculty of Teacher Training and Education and the Faculty of Public Health. The population of this study consisted of lecturers, students, and educational staff. Respondents were identified as lecturers, education staff and students from two faculties totaling 347 respondents. Respondents were then asked to fill out an electronic questionnaire. At the initial stage of filling out the questionnaire there was an option regarding the availability of participation in the research. Respondents who agree can continue by filling in the next section of the questionnaire, while respondents who disagree cannot continue the questionnaire. The sample in this study involved. Data collection by electronic questionnaire that took place over 23 days, from July 20 to August 12, 2023. Within this time interval, we received 347 responses. The inclusion criteria in this study are; i) active students in the academic year of 2022/2023; ii) permanent lecturer; iii) educational staff at the Yogyakarta campus; iv) willing to be a respondent on the first page of filling out the questionnaire. Among the exclusion criteria are: i) students on leave/sickness; ii) not willing to be a respondent.

Mental health instruments use the self-reporting questionnaire (SRQ-29) from WHO which has been validated by professionals [13], [14]. The questions asked followed how the respondents felt during the last 30 days with Question No. category 1–20, if the respondent answers "Yes" with a total score of <5 then the category is "No Need for Referral"; If the respondent answers yes with a total score of ≥5 then they are categorized as "Referral Required" related to emotional or psychological mental disorders. Meanwhile, for questions No. 21–29, if the respondent answered yes with a total score of <1 "No need to refer", while for respondents who answered yes with a score ≥1 then the category "Needs to be referred" is related to drug-related addiction disorders, psychotic disorders and post trauma syndrome disorder (PTSD) [1], [15], [16]. The analysis was carried out univariately to see the frequency distribution and bivariate to see the relationship between demographic factors and mental health status in academics at private campuses in Yogyakarta. This research has been approved by the ethical committee of Ahmad Dahlan University with the letter approval number: 012307121 dated July 17, 2023.

3. RESULTS AND DISCUSSION
3.1. Results
3.1.1. Description of demographic factors in the academic community

Most of the respondents 83.57% were women, and 79.54% were between 17-25 years old. The majority of respondents or as many as 71.47% came from the Faculty of Public Health. In addition, 89.91% as students, and the majority of respondents did not work as many as 75.79%. An overview of the demographic factors of the respondents is shown in Table 1.

Table 1. Demographic factors of the research respondents

Categories	n	%
Gender		
Male	57	16.43
Female	290	83.57
Age		
17-25 years old	276	79.54
26-45 years old	52	14.99
46-65 years old	19	5.48
Faculty		
Faculty of teacher training and education	99	28.53
Faculty of public health	248	71.47
Study program		
Undergraduate in nutrition science	72	20.75
Undergraduate in public health	128	36.89
Undergraduate in english language education	15	4.32
Undergraduate of mathematics education	55	15.85
Master of english language education	17	4.9
Master of public health	49	14.12
Master of mathematics education	11	3.17
Occupation/profession		
Lecturers	32	9.22
Students	312	89.91
Administrative Staff	3	0.86
Working status/income		
Active worker (generate income)	84	24.21
Non-active (no income)	263	75.79
Highest education		
Diploma (D3/D4)	7	2.02
Undergraduate (S1)	87	25.07
Master's degree (S2)	22	6.34
Doctorate (Ph.D)	11	3.17
High school/Vocational school (SMA/SMK)	220	63.4
Total	347	100

3.1.2. Description of mental health status in the academic community

Based on questions 1-20 related to emotional or psychological disorders, as many as 60.81% of respondents needed to be referred to a mental health professional, and based on questions 21-29 related to addiction, psychosis, and PTSD, as many as 73.49% respondents required referral to a mental health professional. The percentage of respondents who completed the answers is presented in Table 2.

Table 2. Percentages of respondents answering the SRQ-29 (N=347)

No	Questions	Yes (1)	%	No (0)	%
1	Do you often have headaches?	163	46.97	184	53.03
2	Is your appetite poor?	99	28.53	248	71.47
3	Do you sleep badly?	208	59.94	139	40.06
4	Are you easily frightened?	147	42.36	200	57.64
5	Do you feel nervous, tense, or worried?	188	54.18	159	45.82
6	Do your hands shake?	52	14.99	295	85.01
7	Is your digestion poor?	93	26.80	254	73.20
8	Do you have trouble thinking clearly?	150	43.23	197	56.77
9	Do you feel unhappy?	90	25.94	257	74.06
10	Do you cry more than usual?	104	29.97	243	70.03
11	Do you find it difficult to enjoy your daily life?	52	14.99	295	85.01
12	Do you find it difficult to make decisions?	180	51.87	167	48.13
13	Is your daily work suffering?	89	25.65	258	74.35
14	Are you unable to play a useful part in life?	78	22.48	269	77.52
15	Have you lost interest in many things?	127	36.60	220	63.40
16	Do you feel you are a worthless person?	88	25.36	259	74.64
17	Has the thought of ending your life been on your mind?	27	7.78	320	92.22
18	Are you tired all day?	153	44.09	194	55.91
19	Do you feel uncomfortable with your stomach?	86	24.78	261	75.22
20	Are you easily tired?	222	63.98	125	36.02
21	Do you drink alcohol more than usual or do you consume drugs?	1	0.29	346	99.71
22	Do you feel that someone has insulted or humiliated you?	29	8.36	318	91.64
23	Have you noticed any interference or anything else unusual with your thinking?	137	39.48	210	60.52
24	Do you ever hear voices without knowing where they come from, and that other people cannot hear?	37	10.66	310	89.34
25	Have you ever had a nightmare dream or disaster dream as if you were in those disasters?	67	19.31	280	80.69
26	Do you avoid the activity, place, people, thoughts, or events that remind you of previous disasters?	72	20.75	275	79.25
27	Do you feel a lack of interest in your usual activity or friend?	131	37.75	216	62.25
28	Are you feeling very annoyed in a situation that reminds you of a disaster or demands you to think about disaster?	119	34.29	228	65.71
29	Are you having difficulty understanding or expressing your feelings?	171	49.28	176	50.72

3.1.3. Relationship between demographic factors and mental health status among academic community

The respondents' mental health status for the category of psychological disorders showed that there was a significant relationship between gender and psychological disorders with a risk of 3.569 times greater for women than men (p-value<0.005). Then, there is a significant relationship between the origin of the faculty, type of work, job status, and education level of the respondents (p-value<0.005). Respondents from the education and teacher training faculties had a 0.558 times greater chance of experiencing psychological disorders than those from the public health faculty. This is also the same for respondents who do not work at risk of 0.099 times more experiencing psychological disorders than those who have the work. Respondents with low levels of education had a 0.202 times greater risk of experiencing psychological disorders than those respondents with higher education supported by a p-value<0.005. In addition, the age factor and the type of work in the campus environment have a significant relationship to psychological disorders with a p-value<0.005. The relationship between demographic factors and mental health status is presented in Table 3.

Table 3. Relationship between demographic factors and mental health (psychological disorder) among the academic community at campus X Yogyakarta (N=347)

| Respondents' characteristic | Mental health status (psychological disorders) | | p-value | OR | CI 95% |
	No need for referral (negative)	Need referral (positive)			
Sex					
Male	37 (64.9%)	20 (35.1%)	0.000	3.569	1.967-6.475
Female	99 (34.1%)	191 (65.9%)			
Age					
17-25 years old	77 (27.9%)	199 (72.1%)			
26-45 years old	40 (76.9%)	12 (23.1%)	0.000		
46-65 years old	19 (100%)	0 (0%)			
Faculty					
Faculty of teacher training and education	29 (29.6%)	69 (70.4%)	0.030	0.558	0.338-0.921
Faculty of public health	107 (43%)	142 (57%)			
Occupation/profession					
Lecturer	28 (87.5%)	4 (12.5%)			
Student	105 (33.7%)	207 (66.3%)	0.000	-	-
Administrative staff	3 (100%)	0 (0%)			
Job Status					
Actively work	66 (78.6%)	18 (21.4%)	0.000	0.099	0.055-0.278
Do not work	70 (26.6%)	193 (73.4%)			
Education					
High school- diploma	59 (26.1%)	157 (73.9%)	0.000	0.202	0.126-0.325
Undergraduate- Ph.D	77 (63.6%)	44 (36.4%)			

Furthermore, the results of statistical tests using chi-square showed that there was a significant relationship between gender, age, type of work, employment status, and education level and drug addiction disorders, psychotic disorders, and PTSD with a p-value<0.005. Female respondents have a 1.976 times greater chance of experiencing mental health disorders than male respondents. Meanwhile, faculty origin was not significantly related to the respondents' drug-related, psychotic, and PTSD addiction disorders. This can be seen in Table 4.

Table 4. Relationship between demographic factors and Mental health status (addiction caused by narcotics, psychotic disorders, and PTSD among the academic community at campus X Yogyakarta (N=347)

Respondent's characteristic	Mental health status		p-value	OR	CI 95%
	No need referral	Need referral			
Sex					
Male	22 (38.6%)	35 (61.4%)	0. 036	1.976	1.087-3.590
Female	70 (24.1%)	220 (75.9%)			
Age					
17-25 years old	44 (15.9%)	232 (84.1%)	0.000		
26-45 years old	35 (67.3%)	17 (32.7%)		-	-
46-65 years old	13 (68.4%)	6 (31.6%)			
Faculty					
Faculty of teacher training and education	23 (23.5%)	75 (76.5%)	0.502	0.800	0.465-1.377
Faculty of public health	69 (27.7%)	180 (73.5%)			
Occupation/profession					
Lecturer	23 (71.9%)	9 (28.1)	0.000		
Student	67 (21.5%)	245 (78.5%)		-	-
Administrative staff	2 (66.7%)	1 (33.3%)			
Job/profession status					
Actively work	55 (65.5%)	29 (34.5%)	0.000	0.086	0.049-0.152
Do not work	37 (14.1%)	226 (85.9%)			
Education					
High school-Diploma	35 (15.5%)	191 (84.5%)	0.000	0.206	0.124-0.342
Undergraduate- Ph.D	57 (47.1%)	64 (52.9%)			

3.2. Discussion

Mental health is one of the health problems that has received attention in recent times in both developed and developing countries [17]. According to Indonesian Law No. 18 of 2014, mental health efforts should be carried out to create an optimal level of Mental health is one of the health problems that has received attention in recent times in both developed and developing countries [17]. According to Indonesian Law No. 18 of 2014, mental health efforts should be carried out to create an optimal level of health using promotive, preventive, curative, and rehabilitative approaches, one of which is by using the SRQ as an early detection tool for mental health within the last 30 years [17], [18]. One of the promotional efforts for mental health in educational institutions such as universities is to create a teaching and learning atmosphere that is conducive to the growth and development of mental health and life skills related to mental health for students following their stage of development [18].

This research found that the group of students between the ages of 17-25 years were very vulnerable to psychological and non-psychological problems such as drug addiction disorders, psychotic disorders, and PTSD. The same results had been found in research at the Royal College of Psychiatrists that the age of 17-25 years is a transition period from the adolescent phase to the early adult phase as students are at high risk of experiencing emotional disorders [19], [20]. Besides the pressure of studying a lot, mental health problems among students are also caused by the new normal era of the COVID-19 pandemic which causes aadolescents to experience depression, stress, boredom, anger, loneliness, fear, and even anxiety and avoidance, and other psychological reactions which have an impact on maladaptive behavior, defensive responses and emotional distress [21]. Based on the results of initial observations respondents from the faculty of teacher training and education experienced more psychological disorders than those of the faculty of public health because in general, these students had a negative perception of the field of science they were studying and felt pessimistic. This is in line with the results of previous research which showed that students at teaching and education faculties stated that the source of anxiety was individual factors, self-confidence, and negative perceptions that English was difficult because it was not a second language in Indonesia [12], [22]–[24].

Based on the SRQ-29 questionnaire, it is revealed that the respondents are getting headaches easily, feeling tired, and feeling anxious, tense, or worried. They found as many as 52.7% of respondents experienced symptoms of anxiety and 60.4% of respondents experienced symptoms of decreased energy

[17]. The decrease in energy felt by a person will cause activities to be disrupted and hampered due to symptoms of fatigue/decreased energy. Then, fatigue will also have an impact on psycho-social, psycho-immunity, and psychophysiology aspects [25], [26].

The majority of the academic community at campus x in Yogyakarta had symptoms of decreased energy and symptoms of anxiety. Research conducted by Donner and Lowry in 2013 showed that the prevalence of anxiety disorders was greater in women, namely 60%, compared to those in men, namely 40% [27]. Another study in Surabaya indicated that as many as 34% of respondents experienced anxiety disorders, which were mostly experienced by 17-19-year-old students (35.5%), and suffered by women (36.4%), while other studies also stated the same thing, namely the level of depression and anxiety experienced by women is higher than that of men [15], [28]–[30]. Anxiety and depression often appear in everyday life, characterized by emotional disturbances or moodiness, loss of interest or pleasure, feelings of guilt or low self-esteem, insomnia, decreased appetite, and poor concentration [15], [31]. The results of this study show that women experience more mental health disorders with a risk that is 3,569 times greater than that of men. Other research says that female students experience poorer mental health disorders, namely higher levels of anxiety and depression compared to men. This is because women are more dominant in using speech when facing problems. Among the factors that trigger mental health symptoms in women are high sensitivity and emotional changes due to hormonal changes before menstruation. This will affect women's mental health [32].

The results of this research also show that students have higher levels of mental health disorders compared to those of lecturers and education staff. This finding is in contrast to previous research conducted on health lecturers in Gorontalo, lecturers often experienced anxiety in dividing themselves in carrying out their duties as lecturers, academic supervisors in hospitals, roles in the family, and other organizations. This is because students are still in the transition stage to adolescence, so they still have to adapt to a lecture environment that is different from before, supported by the large number of students in research locations who are far from their parents (migrating) from various regions in Indonesia, thus causing a level of mental health problems for students. Higher, compared to lecturers who are more able to control emotions and mentality [33]. The same research conducted on lecturers at one of the universities in Pakistan and Ukraine found that among lecturers, mental disorders such as anxiety and depression at severe or very severe levels often occur in contract employees and lecturers with master's degrees in the age range of 35 years old. Anxiety and depression are significantly related to academic discipline, poor health status, and low cadre. This mental disorder also has a risk pattern for work experience and work habits [34], [35].

Someone who works has greater pressure than one who doesn't work even though he/she was supported by a good working environment. The results of this research show that employment status has a significant relationship with mental disorders, both emotion and addiction, psychosis, and PTSD. In previous research related to depressive symptoms in Indonesia, it was found that a person's employment status influences individuals to experience depressive symptoms, especially in adolescents. The chance of developing depression is up to 4.15 times [36]. Individuals who experience high levels of depression will have difficulty focusing on work, including academic work, and he/she will miss work for more than one month, resulting in low/decreased productivity. Moreover, people who work will also experience stress due to long periods of work and heavy workloads [37].

Another finding of this research is that the level of education has a significant relationship with psychological mental disorders and addiction, psychotic disorders, and PTSD. This can happen because the higher a person's education, the more influence he/she puts on others, and the higher a person's education, the easier he/she obtain information and use existing medical services to improve his/her quality of life [38], [39]. This is in line with other research findings that the level of education, especially low education, is a significant factor that influences a person's poor mental health and even depression [40]. Not only depression but also education influences other mental disorders, namely stress; individuals with low education will more easily feel stressed [41] than, those of high school and undergraduate education levels [42]. It is found that high school and undergraduate students have the most mental disorders-the highest anxiety disorders [20].

This research shows that the proportion of students is greater than lecturers and education staff, and the majority of students have mental disorders ranging from emotional mental disorders to addiction, psychosis, and PTSD [43]. Entering higher education often causes psychological problems, including being separated from previously established social support networks. Students who leave home may receive less social and psychological support from people they consider close, which can harm their mental health and coping processes [43]. The results of this study are relevant to the results of a study conducted on university students in the US where university students consistently reported poorer mental health than their faculty/staff colleagues. Thus, physical and mental health support and interventions are needed for college students according to demographic groups [44]. On the other hand, youth in families with military ties reported poorer mental health and more risk-taking behaviors than youth without military ties [45].

In general, it is implied that age, gender, type of work, employment status, and level of education within the working environment at the campus are related to the mental health status of academics in the Yogyakarta campus. At the university level, it is necessary to develop strategies to be able to access mental health services and provide extensive early-detection screening to students with special conditions. Then, this situation can be used in making policies by involving campus administrators, mental health professionals, researchers, and policymakers to be able to anticipate future health problems more effectively [46]. Another effort can be made by providing mental health literacy to maximize access to the use of professional mental health services so that they can seek help in overcoming mental disorders from an early age. This can be done by attending seminars, training, or using social media to search for information about mental health [47], [48]. Futhermore, educational interventions targeting mental health literacy and help-seeking attitudes and intentions among college students are needed to improve help-seeking behaviors [49]. If a campus climate is fostered where mental health issues are recognized and addressed across campus groups, rather than stigmatized, then students will be more likely to self-disclose, utilize mental health and wellness services, and utilize accommodations if they are eligible to do so [50].

This research was conducted at two faculties that play an important role in public education by implementing a healthy campus. This research is not totally free from limitations. Firstly, most previous research has focused on one mental health disorder so that we could clearly understand the mental health disorder being experienced. This study, however, describes all the symptoms of mental health disorders in general and simultaneously. Secondly, there are differences in the proportions of respondents both in terms of a number of respondents and faculty origin, and so they cannot provide a full picture of the results regarding the burden of mental health disorders experienced. Thirdly, this research was carried out by distributing questionnaires online; therefore, the research team did not receive additional information regarding the symptoms felt by the respondents. Finally, there is not yet sufficient literature discussing mental health disorders in teaching and educational science faculties or in public health faculties

4. CONCLUSION

The number of respondents who needed to be referred to a mental health professional was high. There is a significant relationship between psychological disorders and demographic factors, consisting of gender, age, type of work, employment status, education, and faculty origin. Meanwhile, for mental disorders due to addiction, psychosis, and PTSD, the related factors are age, gender, level of education, type of work, and employment status. This needs to be followed up with health promotion efforts such as collaborating with the local health office and local hospital for further treatment. Moreover, policy support from universities is urgently needed to create a healthy campus.

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