

OVERVIEW OF STRESS LEVELS IN THIRD AND FOURTH-YEAR FEMALE STUDENTS

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Abstrak

Physical demands, environmental and social situations that cannot be controlled can cause stress, stress the third and fourth years, can be caused by the many responsibilities that must be completed. Third and fourth year students could have vary stress levels, the objective of this study was to determine stress level on students in semester 6 and 8 of the FIKES, UIKA Bogor. Sample size was 33 female college students in 6th and 8th semester, obtained with consecutive sampling. The research method used descriptive analytic study design. Data on stress level were obtained by filling out stress part in DASS-21 questionnaire through google form in June-July 2023, and univariate analysis was used for the data. The results showed that more than half subject (55%) had normal stress level, meanwhile mild and moderate stress level were 15% each. Severe (9%) and extremely severe (6%) stress level were also founded in this research. Most of the stress levels in final years students at FIKES UIKA Bogor were normal, but treatment is needed for subjects who have severe and extremely severe stress. Screening for stress from faculty can be held to prevent severe stress and college students need to know about stress management. Future research can involve more samples regarding stress factors and stress education intervention in semesters 6th and 8th girl college student.

Keywords : College students; Final year; Stress; Stress Level

Introduction

Stress is a state of pressure, both physically and psychologically, caused by the physical demands of the body or the environment and uncontrollable social situations^{1,2}. Stress can also be interpreted as an unpleasant condition caused by various demands, such as challenges, threats, and dealing with unrealistic expectations to meet those demands³. Stress according to UNICEF, has a general definition of a feeling acquired when under pressure, overwhelmed, or unable to cope with it. A small amount of stress can have a positive impact, motivating one to achieve goals⁴. According to WHO, stress is defined as a state of worry or mental tension caused by difficult situations. This state occurs naturally as a human response to overcome threats and challenges in life⁵. Unlike normal and mild levels of stress, severe stress can lead to decline in academic ability and performance indices⁶. Disruptions in concentration, memory, and a decrease in problem solving abilities can occur when stress reaches a severe level⁷.

According to WHO data, 14% of adolescents aged 10-19 years old have mental health issues. Mental health can make adolescent vulnerable to social isolation, discrimination, difficulties in

academics, risky behaviors, and poor physical health.⁸ Referring to the Riskesdas data from 2018, 9,8% of the population ages >15 years experienced stress, depression, and anxiety. The prevalence in the age group 15-24 years is 10%, which is higher than the prevalence in the age group 25-34 years (8,5%) and the age group 35-44 years (9%). West Java has a prevalence of 12.1%, a figure higher than the national rate in Indonesia⁹. The prevalence of stress among students in Ethiopia is 63.5% (Worku et al, 2020). The prevalence of stress among students in Malaysia is 37.7%¹¹. The prevalence of stress in research conducted on teenagers in India is 51.8%¹².

Adolescence is a vulnerable period for experiencing stress due to rapid physical, psychological, and sexual change⁸. The growth and development of adolescents have unique characteristics in the life cycle due to the occurrence of the puberty period^{9,13}. Research conducted on women aged 18-25 years in Saudi Arabia yielded high levels of stress, with 39% of women experiencing it¹⁴. Women are more vulnerable to experiencing stress, possibly due to inherent physiological change, specific parenting patterns, and pressure to achieve good academic grades at a young age¹⁵. If negative interpersonal events occur, adolescent girls are more prone to experiencing stress compared to boys¹⁶. Differences in stress-related hormones in females and males can result in females being more susceptible to stress¹⁷. Female students have a higher risk of experiencing stress¹¹. Mental health in women is crucial to consider, as women are the mothers of the children who will be born in the future.

Students are in a phase of transition between late adolescence and early adulthood. During their academic pursuits, bear the responsibility of actively participating in lectures, as well as completing assignments either independently or collaboratively. The third and fourth years of university can be considered to come with greater responsibilities. In the third year, specifically in the sixth semester of Public Health program, students have already chosen their specialization. The course material becomes more specific and in-depth. Assignments in the third year often involve mini-projects that require students to learn directly in the field. In fourth year, during eight semester, students are required to complete their thesis. A thesis is different from completing regular coursework as it comes with specific requirements and is a prerequisite for obtaining a bachelor's degree. Challenges and the emergence of issues in sixth and eighth semesters can lead to stress among students.

Stress levels among students can vary and different levels necessitate distinct approaches to prevent exacerbation. Research on stress levels among students predominantly focuses on early and late stages of academic pursuits, often neglecting the specific experiences of female students. Researchers are interested in conducting a study aimed at understanding the stress levels among female students in the sixth and eighth semesters at FIKES UIKA Bogor.

Method

This research employs a descriptive analytic study design and is conducted at the Faculty of Health Sciences, Ibn Khaldun University in Bogor. The study took place in June-July 2023. The population consists of students in the sixth and eighth semesters in the year 2023, and the minimum sample size was calculated using the Slovin formula, resulting in 30 individuals. However, by the end of the research, 33 samples were obtained. The consecutive sampling technique was used to select the samples. Data collected include characteristics (age and semester of study) and stress levels, provided by the participants through a Google Form. The questionnaire used is part of the standardized DASS-21 questionnaire, with seven questions measuring stress (questions 1, 6, 8, 11, 12, 14, and 18). Responses are categorized into four levels: never, sometimes, often, and very often, with scores ranging from 0 to 3. Stress levels are categorized by multiplying 2 and summing up the total score for each sample. If the total score is 0-14, it falls under the normal stress level; 15-18 is mild stress, 19-25 is moderate stress, 26-33 is severe stress, and above 34 is extremely severe stress. The data were analyzed

with univariate analysis and presented in a frequency distribution table for sample characteristics in Table 1 and stress level data in Table 2.

Result

Sample Characteristics

The research results presented in Table 1 indicate that the majority of the samples are over 21 years old (78%), in the 8th semester (88%) and living with their parents (88%).

Table 1. Sample Characteristics

Characteristic	n	%
Age (Years)		
≤ 21 years	9	27
>21 years	24	78
Semester		
6	4	12
8	29	88
Living together		
Other than parents	4	12
With parents	29	88

It appears that the majority of students have a normal level of stress (Table 2).

Table 2. Stress Levels In Sample Based on Semester

Semester	Stress Levels				
	Normal	Mild	Moderate	Severe	Extremely Severe
N(%)					
6	3 (75)	1 (25)	0 (0)	0 (0)	0 (0)
8	15 (52)	4 (14)	5 (17)	3 (10)	2 (7)
Total	18 (55)	5 (15)	5 (15)	3 (9)	2 (6)

Based on the scores for each question related to stress in the DASS-21 questionnaire, question number 8 has the highest, while the question with the lowest scores is found in question number 11 (Table 3).

Stress levels in females students at 6th and 8th semesters

The stress levels in this study are presented in Table 2. The majority of the samples experience a normal level of stress (55%), while mild and moderate stress are at 15% each. The levels of severe and very severe stress are 9% and 6% respectively. The levels of severe and very severe stress are found in female students in the 8th semester.

Table 3. Total Score for Each Stress-Related Question

Question	Total Score
Question 1 I find it hard to wind down	40
Question 6 I tend to over-react in certain situations	31
Question 8 I felt that I was using a lot of nervous energy	47
Question 11 I found myself getting agitated	29
Question 12 I found it difficult to relax	30
Question 14 I was intolerant of anything that kept me from getting on with what I was doing	32
Question 18 I felt that I was rather touchy	38

Discussion

Age is one of the factors influencing the occurrence of stress. Increasing age indicates more problems and decisions, demands that someone will face. Research by Kumar et al. (2019) shows that stress tends to occur in the late adolescent age compared to early adolescence¹². In late adolescence, there is rapid mental development that enables teenagers to hypothesize about everything related to life and their environment¹⁹. The research at STIKes Graha Medika has found a correlation between age and stress in students²⁰.

The female students who were the subjects of the study were mostly in the 8th semester. The 8th semester in the Faculty of Health Sciences is dedicated to completing a comprehensive scientific work, namely the thesis. The thesis is a comprehensive academic work required to obtain a bachelor's degree. Research results on medical students indicate that stress is greater in students in the later academic years compared to the early semesters²¹.

Most of the samples still live with their parents. Parents can be a source of encouragement both morally and materially. Students are likely to be more at ease if they live with their parents. Adolescents who live alone or away from their parents tend to experience more stress¹². Studi oleh Hamzah (2020) menunjukkan bahwa lokasi tempat tinggal berkaitan dengan tingkat stres yang dialami oleh mahasiswa²⁰. Students who live alone tend to experience higher levels of stress compared to those who live with their parents or siblings²².

The stress level for most students is normal (Table 2). This result aligns with the research conducted by Hasanah and colleagues (2020), indicating that the majority of students have a normal stress level²³. Different results were found in a study with senior-level student participants in Magelang, where the majority of the samples experienced a moderate level of stress (57.4%)⁶. The research conducted on students working on their theses shows similar results, with the majority of students experiencing a moderate level of stress²⁴. The moderate and severe stress that occurs can be attributed to internal factors, namely the students' lack of ability to cope with problems effectively. Issues stemming from the environment, family, and interpersonal relationships can be external factors contributing to stress. As the semester progresses, the academic process becomes increasingly challenging, and the demands to complete the thesis also grow⁶.

Stress in adolescent girls can be caused by pressure to perform well, narrow perspectives or expectations of success for women, peer competition, and the mismatch between one's own desires and parental expectations²⁵. Holistic education about stress, encompassing general health information, recognizing stress, identifying stressors, how to respond to stress, understanding emotions, self-love, and awareness of support, can reduce stress in adolescent girls¹⁵. The predominantly normal stress levels in this study's samples can be attributed to the fact that the female students are from the Public Health program, where the concept of health has been introduced since the beginning of the semester. The application of the knowledge gained during lectures may assist the samples in coping with stress. Stress has positive impacts on students, such as making them more diligent in completing final assignments, increasing creativity, and fostering enthusiasm to graduate on time⁶. The amount of stress that does not exceed students' capabilities is crucial because it can activate brain performance (26). The maintenance of normal stress levels in students may be attributed to positive self-confidence. Positive self-confidence, which is the assessment and perception of one's ability to complete tasks and achieve goals, is related to lower levels of stress in students²⁷.

Despite the majority of samples having normal, mild, and moderate stress levels, some were found to have severe and very severe stress levels. Severe and very severe stress levels need to be addressed because they have more serious impacts on physical conditions such as heart disease, high blood pressure, and shortness of breath. Disturbed mental health, unstable emotions, irritability, and even depression can be psychological consequences. The academic side may be affected as individuals tend to be unfocused and easily angered^{7,28,29}. Another negative impact of stress is that students may become lazy in the thesis guidance process and increase the tendency to smoke⁶.

The DASS-21 questionnaire in the stress section consists of seven questions. The larger the score obtained, the more frequent the subject experiences that condition. Table 3 shows that the highest score is found in question 8, where subjects feel they expend a significant amount of energy to feel anxious. Sixth-semester students have the obligation to complete tasks, including the creation of projects, among other things "*project*" and carried out in groups, thus the level of difficulty is different compared to tasks in previous semesters. The research conducted by Merry and Mamahit (2020) on students at a private university in Jakarta found that the level of stress in students can be attributed to uninteresting courses, instructors who do not provide feedback, and inappropriate grading *feedback*, giving inappropriate grades³⁰. That can make students exert a significant amount of energy due to anxiety in completing the given assignments during lectures. This is supported by the second-highest score found in question 1 (Table 3), which is "I found it hard to wind down" where the tasks assigned to students are quite numerous and time-consuming. This result may be due to the tasks undertaken by senior students or those in the 8th semester, namely the thesis, which is a comprehensive academic work involving theory, field data collection, data processing, and discussion⁶. A thesis is also dependent on others, such as during guidance sessions with the supervisor and during data collection at the research site. After drafting the result, students have to defend their undergraduation-thesis in a presentation. The thesis work takes a considerable amount of time, unlike regular coursework, and it determines the

graduation for obtaining a bachelor's degree. Throughout this process, feelings of anxiety can arise at each stage. Students may feel they are expending a significant amount of energy in being anxious about creating the thesis and awaiting the grades.

The lowest score is found in the question about feeling restless. The majority of the samples live with their parents (Table 1). Parental support is considered a form of social support. Parental support can provide motivation during the final semester of students and help them face existing challenges³¹. The support provided by parents during the thesis process can reduce the stress experienced by students³². The anxiety experienced by students can be reduced with such support, keeping the stress levels within the normal range. Stress is a natural aspect that can occur in students, and the ability to cope with stress is necessary so that stress has a positive impact and does not worsen, thus disrupting academic performance, especially for students in their final semester. Screening activities organized by the study program or faculty can be held as a preventive measure against stress in students. Female students in the 6th and 8th semesters need to understand effective stress management. Further research on stress levels, examining stress factors, and providing stress management education for final semester students is needed, considering the limitations of time and sample size in this study.

Conclusion

Most of the samples in this study have normal stress levels, but samples with severe and extremely severe stress levels were found in semester 8. Scores from the DASS-21 questions indicate that subjects often feel they expend a significant amount of energy when feeling anxious. Subjects with severe and extremely severe stress levels require intervention. Stress screening activities which held in college or Faculty can be conducted as a preventive measure, and students need to understand stress management. Further research could involve a larger sample size and explore stress factors and educational interventions related to stress for female students in the 6th and 8th semesters.

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