



Original Research

STRESS LEVEL DIFFERENCES ON FINAL YEAR NURSING STUDENTS DURING DISTANCE LEARNING BETWEEN GENDER

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ABSTRACT

Introduction: The implementation of distance learning on final-year nursing students who are preparing thesis often gives more burden and stress. Stress is certainly different between male and female students. The purpose of this study was to determine the difference in stress levels in final-year nursing students by gender.

Method: The study was comparative research with cross-sectional design. Total samples were 167 final-year nursing students of the Bachelor of Nursing study program at Airlangga University and Nahdlatul Ulama University Surabaya. The sampling technique used researchers in this study were non-probability sampling, which is purposive sampling. Independent variables were gender. Dependent variables were stress level. The instrument used was questionnaire sheet DASS (Depression Anxiety Stress Scale) 42 with a Likert scale and analyzed by paired T test.

Results: The number of students who experience stress is dominated by female students as much as 83.2% or 139 people. The most common level of stress found in mild stress was 28.1% or 66 people. Additionally, the result of comparative test found that there was a significant difference of stress between male and female student of final semester.

Conclusions: It concluded that there was significant difference in stress levels between male and female students. Gender differences was followed by significant differences in stress levels in the study subject.

Keywords: Distance learning, Final-years Student, Gender, Nursing Student, Stress Level

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1. INTRODUCTION

Stress is a state of an individual who face a situation that tests his abilities. Stress arises when individuals perceive certain situations or circumstances that place a burden on themselves, will endanger their existence, and are destructive if there is no balance between the individual's mental endurance and the perceived stress burden (Saputra & Palupi, 2022). Students are one of the groups that experience stress. When working on a thesis during distance learning, final semester students get a lot of demands and difficulties that trigger stress. The qualitative study found several things that cause anxiety and stress, including pressure for scientific publications, lack of administrative support, the relationship between lecturers and students, external evaluation, and

stress due to delayed thesis defence (Waheed et al., 2021).

Study revealed that nursing students had higher stress levels due to distance learning compared to students from other study programs with a prevalence of 28.4% mild stress, 21.8% moderate stress, 19.6% severe stress, 5.6% very severe stress (Masha et al., 2020). The incidence of stress experienced by final semester nursing undergraduate students who were writing a thesis was 23 people (32.86%) experiencing mild stress, 27 people (38.57%) experiencing moderate stress, and 20 people (28.57 %) experiencing severe stress (Sari, 2020).

Distance learning is a new thing that comes from the environment and unknown by final semester students, in this learning process they are not

familiar with the changes and obstacles faced so that there are pressures and demands that are not in accordance with their abilities and then make it difficult. as a burden and cause stress. Stress influenced by various factors, one of which is gender. The APA (American Psychology Association) reported that female is more likely to have severe stress than male. Female are more likely to report physical symptoms associated with stress yet at the same time woman have a better ability to overcome stress by connecting with others (APA, 2012). These differences affecting student attitudes in completing the thesis. Female students are more concerned with the difficulty and quantity of thesis material that they must master, besides that they tend to have high expectations of themselves and also tend to feel insecure about their abilities. This causes the stress level of female students to be higher than that of male students (Simorangkir, 2016).

There is enough evidence to support that gender is affecting the stress response. Yet the evidence of gender affecting the stress of student working on thesis during distance learning is not yet fully explored. There was a study emphasizing this phenomenon in the doctoral student but the study was a qualitative study and did not measuring the student level of stress quantitatively (Waheed et al., 2021). Some research had look at distance learning effect on the student psychology, such as a study in Saudi Arabia researching the readiness of student to start skill lab station, another study in Germany researching the longitudinal effect of distance learning on the student's stress and mental health (Votmer et al., 2021), this two research addressing the stress problem in the university student yet both study did not mention about the stress related thesis and final semester on student. Other study does mention about the stress related thesis and final semester on student (Schlichtiger et al., 2020), yet the study did not explore about the difference level of stress between gender (Kharma et al., 2022).

This study become so important because higher education study environment is radically changing in an instant. Everything changes and the students had to adapt rapid (Elmer et al., 2020). The biggest problem is that no students at this current stage are signing for distance learning. Not to make things confused, distance learning does exist and established in Indonesia. Yet the student applying for the program are ready and prepared for the distance learning environment. In the meantime, the student that this study employed are not ready and not applying for distance learning (Hermanto et al., 2022). This study addressing this phenomenon and emphasize the quantitative stress between gender caused by rapid changes of education environment. The study aimed to understand the stress level of undergraduate student of final semester on distance learning between gender.

2. MATERIALS AND METHODS

2.1 Design

This study employs a quantitative design with a correlational methodology and a cross-sectional strategy. Cross-sectional research emphasizes a single measurement or observation of data for independent and dependent variables (Nursalam, 2020). This investigation will ascertain the frequency or impact of a phenomenon (dependent variable) in relation to its cause (independent variable).

2.2 Population and sampling

The population in this study were final semester students of the Bachelor of Nursing study program at Airlangga University and Nahdlatul Ulama University Surabaya. The sample in this study was 167 respondents obtained by purposive sampling technique. Inclusion criteria were as follows: (1) Nursing undergraduate students of Airlangga University and Nahdlatul Ulama University of Surabaya Ulama Surabaya regular program 8th semester except researchers, (2) Students who are compiling a thesis. Exclusion criteria were as follows: (1) Students who were unable to carry out distance learning, (2) Students who were on academic leave, (3) Respondents who were not willing to participate in the study or respondents who did not fill in the informed consent.

2.3 Variable

The independent variables were gender, and dependent variables were stress level.

2.2 Instrument

The instrument used was a questionnaire sheet DASS (Depression Anxiety Stress Scale) 42 with a Likert scale. These DASS 42 questionnaires have been translated into Indonesian by into Indonesian by Damanik (2011). DASS 42 is a questionnaire to measure stress created by Lovibond & Lovibond in 1995 and then developed by the Psychology Foundation of Australia. This questionnaire aims to recognize individual's emotional status totaling 42 question items that are usually described as stress, depression, and anxiety. The researcher adopted 14 stress scale items from the DASS 42 to evaluate the level of stress. This questionnaire has been tested for validity and reliability using the Pearson Product Moment and Cronbach Alpha tests. The results of the stress level questionnaire questionnaire results indicated that there were 14 questions with a value of $r_{count} > r_{table}$ (0.413). (0,413). Meanwhile, the reliability test results have a Cronbach Alpha value of 0.92. It showed that this questionnaire was declared valid and reliable. The score categories in the DASS 42 questionnaire are as follows: Normal: 0 – 14, Mild Stress: 15 – 18, Moderate Stress: 19 – 25, Severe Stress: 26 – 33, Severe Stress: > 34.

2.3 Procedure

Researchers validated preliminary data on the number of final semester students at the Faculty of Nursing, Airlangga University and the Faculty of Nursing and Midwifery, Nahdlatul Ulama University Surabaya. After that, determine the respondents according to the inclusion criteria, then coordinate with the Faculty of Nursing, Universitas Airlangga and the Faculty of Nursing and Midwifery, S1 Nursing Study Program, Nahdlatul Ulama University Surabaya for data collection on respondents.

Researchers collected data by distributing questionnaire links online using google form which also contained informed consent. Researchers provide information if respondents do not understand the meaning of the questions given through personal messages. This research conducted alone without the help of research assistants. After the questionnaire is filled in, the respondent submits the questionnaire and it will be automatically sent to the researcher. automatically sent to the researcher. Finally, data processing and analysis.

2.6 Analysis

The researcher will assess the questionnaire by assigning a score to each question after processing the collected data. Researchers use univariate analysis to determine the distribution and presentation of each variable, including distance learning and student stress levels. The dependent and independent variables variables presented by researchers in the form of frequency tables provide a description of the frequency distribution. Analyzed bivariat using IBM SPSS Statistics 26 to determine differences in stress levels based on gender by conducting an Independent Sample T Test.

2.7 Ethical Clearance

This research has been ethically approved by the Health Research Ethics Commission (KEPK) of the Faculty of Nursing, Universitas Airlangga with certificate number 2187-KEPK.

3. RESULTS

The majority of respondents are female. The average respondents aged 21-22 years were 89.8% or 150 people. Respondents were equally divided from both institutions as many as 87 people (52.1%) from Airlangga University and 80 people (47.9%) from Nahdlatul Ulama University Surabaya. Respondents predominantly utilize Zoom for distance learning and thesis guidance [Table 1]. Based on table 2, total number of students who experience stress is 120 people from the total. The number of students who experience stress is dominated by female students as much as 98 people. The significance level on the Levene's test for equality of variance is 0,044 ($p > 0,05$) which means the data variance between the male and female students is equal or homogenous. Additionally, the result of comparative test found that

there was a significant difference of 0,645 ($p > 0,05$). It concluded there was no significant difference of stress between male and female student of final semester [Table 3].

4. DISCUSSION

This study found a very small difference between the mean stress of male and female student. Female does have a slightly higher mean but its only different by decimal number. The saturation of stress across the criteria is quite similar (table 2). There were only two notable differences: the first was that males experienced more mild tension than females. The second finding was that only females had extremely severe stress; no males were found to have extremely severe stress.

American Psychological Association (APA) reported a quite similar finding, it was female more likely to have higher stress level. This makes female also more likely to develop symptoms related to stress. The survey found that woman have a greater deal of stress, and it is growing bigger every year. Even though the common stress sources is different between gender. Additionally woman is vulnerable to develop a meaningful symptoms such as headache, crying, or having gastro intestine problem (APA, 2012). A longitudinal research to university student investigating the stress before and after the distance learning wave in Germany found that more than half of the respondents which are female was having negative impact on the mental health (Votmer et al., 2021). This is in line with the results of research conducted by researchers that female students mental health during distance learning is compromised

American Psychology Association survey of stress across gender in America was a robust evidence that gender was a predisposing factor of stress. People of different gender perceived stress differently. Research also suggesting that metabolism plays a big role in this matter. Each gender has different body process happen in the body and research have emerged multiple theories on explaining this difference. Such as the HPA-Axis (hypothalamic-pituitary-adrenal) and the autonomous nervous system, gonadal steroids and menstrual cycle, psychoneuroimmunology markers genetic modulation and endophenotype/ personality predisposition, cognitive structure, and fight or flight versus tend and befriend (Samson, 2019). Higher stress response in woman is caused by the process of HPA- Axis and the menstrual cycle which resulted in mood swings which later caused female troubled to control her stress.

Based on research that has been conducted at the Faculty of Nursing, Airlangga University and the Faculty of Nursing & Midwifery, Nahdlatul Ulama University, Surabaya, in the final semester of the Bachelor of Nursing study program, there were no significant differences in stress levels between male and female students. The finding is in line with the

Tabel 1. The frequency of respondents based on gender, age, institutional origin, and media used during distance learning

No	Respondents Characteristics	Frequency(n)	Percentage(%)
1.	Gender		
	Male	28	16,8
	Female	139	83,2
2.	Age		
	20 years old	5	3
	21 years old	69	41,3
	22 years old	81	48,5
	23 years old	12	7,2
3.	University		
	Universitas Airlangga	87	52,1
	Universitas Nahdlatul Ulama Surabaya	80	47,9
4	Media used for distance learning		
	Zoom	145	86,8
	Google Meet	12	7,2
	Aula	1	0,6
	Other media	9	5,4

Tabel 2. The level of stress in the final semester students of the S1 Nursing study program in Surabaya during distance learning based on gender

Gender	Stress Level									
	Normal		Mild Stress		Moderate Stress		Severe Stress		Very Severe Stress	
	f	%	f	%	f	%	f	%	f	%
Male	6	21	15	54	3	11	4	14	0	0
Female	41	29	51	37	19	14	22	16	6	4

Tabel 3. Independent-Samples T Test between stress level and gender

	Levene's Test		T-Test			
	F	Sig.	t	df	Sig. (2-tailed)	
Stress level	4,137	0,044	-0,462	167	0,645	

research by Sagita et al., (2021) which shown that there was no significance difference of academic stress between male and female student. Other research by Hafifah et al., (2017) to the Faculty of Health students emphasized similar result in which there was no difference of stress between male and female. Study shown that to measure the severity of stress gender does not directly affecting it (Bismala, 2022). Study to dentistry student on anxiety for returning to skill lab found that there is no difference in the fear between gender. Dentistry student across gender have no different fear to return to do skill lab.

Men are typically more rational, principled, decisive, and in control, whereas women are typically less rational, more empathetic, cautious, and subordinate. However, in reality, in the process of writing a thesis during distance learning, there was no significant difference in the stress load. The

tendency for the absence of differences in stress levels for students in the final semester of the bachelor nursing study program in Surabaya can be influenced by factors, one of which is familiarity in this matter the students' perceptions of how often they are exposed to the same stressor. Study also emphasizes that fear which later built into stress on final year student is shifted from the stress of gender-specific driven into task driven stress. The study by Kharma et al., (2022) clearly shown this phenomenon, the dentistry student in that study expressed that university task is over power the fear caused by gender-specific factor. The student is focused on completing the task that they are assigned into and this is a heavy stress agent.

Another possible explanation on this finding is that since male are employed the fight and flight response female are using the tend and befriend more

often. The tend and befriend stress response is unique which promote female to build attachment caregiving response, this helps female to moderate the sympathetic and HPA arousal (Verma et al., 2020). During the distance learning this stress response helps female by shaping a good adaptation. Tend and befriend stress response leads female to reach social support from relative, contacting friends and family, eating balance diet, getting enough sleep, exercising regularly, taking care about cleanliness, and maintain her "me time" (Votmer et al., 2021). "Me time" that is getting common in Indonesia female student is binged watching Korean drama, this does helps lifted the burden of stress.

Gender is a significant determinant of individual wellness, and there is a discernible pattern in the prevalence of various physical and psychological disorders by gender. In general, males are more susceptible to infectious diseases, noncommunicable diseases, aggressive behavior, and drug abuse. Women suffer from autoimmune diseases, chronic pain, melancholy, and numerous anxiety disorders. The observed pattern of gender-specific diseases may be attributable in part to the influence of sex hormones, as some of these gender differences emerge during the reproductive years and diminish progressively after menopause. Individual differences in stress reactivity are regarded as a significant risk factor for gender-specific health issues in men and women. (Verma et al., 2020).

5. CONCLUSION

Therefore, it can be assumed that the number of students who experience stress is dominated by female students. Mild Stress is the most common level of stress reported by students during distant learning. In line with these results, nursing education institutions may be advised to give guidance and counseling services to students in order to reduce stress levels encountered during distant learning. Besides, this study focuses only on the level of stress experienced by students, while the DASS 42 instrument is also able to measure the level of depression and anxiety. Therefore, can be recommended to conduct more research related to the level of depression and anxiety.

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