RELATIONSHIP OF STRESS LEVEL AND SLEEP QUALITY IN NEW STUDENTS IN D3 STUDENTS OF JEMBER UNIVERSITY, PASURUAN CITY CAMPUS

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ABSTRACT

A new student or better known as new student is someone who has just entered the stage / process of gaining knowledge or learning and administratively has just been recorded as having attended a university (Hartaji, 2012). The large number of activities during the initial period of lectures that must be completed triggers new students to pressure themselves to be able to carry out activities properly to fulfill the assigned tasks within 24 hours. This phenomenon causes new students to experience fatigue and the risk of experiencing stress, which affects the quality of their sleep. The purpose of this study was to determine the relationship between stress levels and sleep quality in new students of the D3 study program, Jember University, Pasuruan City Campus. This research design used cross sectional method. The population of this study was 107 people with a sample of 107 people who were taken by total sampling. Statistical test using the Sperman Rank test. The results showed that the stress level of new students was a mild stress level of 52 people (48.4%). The sleep quality of new students was poor sleep quality as many as 54 people (50%). Based on statistical tests, the results obtained p value 0.012 <α 0.05 with a correlation coefficient of 0.226, which means that there is a weak positive relationship between stress levels and sleep quality in new students of D3 study program, Jember University, Pasuruan City Campus. This result was possible because during this pandemic, students had to undergo new learning methods for them, namely online learning models that required them to master IT well. In addition, the number of assignments given by lecturers online takes a lot of time to complete, so that it affects the quality of student sleep. So, the role of nurses as counselors and educators is needed to provide counseling and education about stress management and sleep needs management for new students of the D3 study program, Jember University, Pasuruan City Campus.

Keywords: Stress Level, Sleep Quality, new students

BACKGROUND

A new student or better known as new student is someone who has just entered the stage / process of gaining knowledge or studying and administratively has just been recorded as having studied at one of the tertiary institutions consisting of academics, polytechnics, colleges, institutes and universities (Hartaji, 2012) . In this regard, new students have a different set of academic activities on campus from when they were still in high school or the equivalent.

Complaints of stress are universal, which means that stress can be experienced by anyone in a certain form. New student stress can come from different academic activities

from when they were still in high school level or the equivalent, especially from external demands and internal guidance. External demands experienced by new students, such as learning new material in a foreign language that they just heard, are required to master IT well, individual assignments and group assignments with short deadlines, practicums, exams, to the biggest assignment, namely they already have to starting to think about what themes will be appointed as a final project / thesis, parents' demands for success in lectures, environmental adaptation and campus activities. Internal demands come from the ability of new students and self-idealism. Individuals who are unable to cope with and control their stress will accumulate and trigger depression in the individual's life without the right solution.

The number of activities and also the demands that must be completed forces new students to carry out their own routines so that everything can be completed properly and run smoothly within 24 hours. So that new students are not able to meet basic needs optimally, especially the need for sleep. The psychological impact that often occurs in new students can be in the form of a decrease in cognitive function so that the psychomotor slows down, decreased learning concentration, easy stress, memory problems. And physical health has an impact on easily complaining of fatigue, dizziness, blackness in the eye area, sore eyes, sunken eyes, frequent yawning and lack of enthusiasm (Hidayat & Uliyah, 2014).

Based on the description above, the results of data from Riskesdas in 2018 show that in East Java Province there were 6.82% experiencing mental emotional disorders or stress in residents aged over 15 years and data on mental emotional disorders or stress in Jember there were 11.2% in the population aged above 15 years (Kementrian Kesehatan, 2018).

In a 2013 survey, 83.6 million adults in the United States reported sleeping <7 hours in 24 hours. (Control, 2013). The survey results showed that most respondents never or rarely sleep soundly on work or school days,

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with the criteria for the age 19-29 as many as 770 respondents.

The journal National Sleep Foundation explains that young adults (18-25 years) and adults (26-64 years) sleep 7-9 hours per day or not ≤ 6 hours per day. But in fact, young adults, especially new students, where they have busy activities, have an impact on reduced rest time and sleep. As is the case with new students of the D3 Nursing Study Program at the University of Jember, Pasuruan City Campus. This triggers stress stress on new students.

The results of a preliminary study conducted by researchers, on Wednesday, October 16, 2019 at the D3 Nursing Study Program at the University of Jember, Pasuruan City Campus. D3 Nursing Study Program, University of Jember, Pasuruan City Campus is the only nursing campus located in Pasuruan City whose students come from inside and outside the city of Pasuruan. The results of the researcher's observations about new students in the D3 Nursing Study Program at the University of Jember, Pasuruan City Campus, some of the new students, feel depressed, stressed, often cry with changes in activities from high school to college. Moreover, new students who just feel the atmosphere and climate of the lecture are increasingly complicated with pressure on them to be able to attend lectures and complete assignments properly and on time. The total number of new students class 2020/2021 is 107 people.

Lecture activities in the D3 Nursing Study Program at the University of Jember, Pasuruan City Campus, are systemically starting at 05:10 - 23:20. This activity results in reduced rest and sleep time. This triggers the stress of new students in facing the lecture atmosphere they just felt.

Previous research researched by Pratama in 2014 stated that respondents who had low motivation with a high level of stress were due to feeling internal pressure on the demands of tasks and activities to be completed. Some of them say that they are unable to adapt to the environment and divide

their time between academic activities and social activities (Pratama, 2014).

This research was also conducted by Fenny in 2016 concerning a decrease in sleep quality and quantity of student sleep which will have an impact on the neurobehavioral, neurocognitive, and psychomotor systems so that the result is decreased concentration, memory, the ability to solve problems and make decisions, think critically, and easily stress (Fenny , 2016).

Mental nursing is a professional nursing service based on behavioral science and mental nursing in humans throughout life with a maladaptive psychosocial response caused by bio-psycho-social disorders, using self, and mental nursing therapy, namely therapeutic communication therapy and nursing modality therapy. mental health. Mental nursing services through the nursing process approach to improve, prevent, maintain, and restore the mental health of clients (individuals, families, and community groups) (Yusuf & et al, 2015).

The role of the mental nurse can provide counseling on the principles of mental health, be active in community activities related to mental health (Yusuf & et al, 2015). Other roles of mental nurses as providing nursing care, educators and counselors can provide information and motivate students to deal with stress and the quality of sleep they are facing. Based on the existing phenomena, researchers are interested in conducting a study entitled "The Relationship between Stress Level and Sleep Quality in new students of D3 Nursing Study Program, Jember University, Pasuruan City Campus". This research purpose Knowing the Relationship between Stress Level and Sleep Quality in new students of D3 Nursing Study Program, University of Jember, Pasuruan City Campus

METHODS

The research used correlational with cross sectional approach. The population in this study. The population of all D3 Nursing Study Program students, Jember University, Pasuruan City Campus were 107 people. The

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number of samples used is all. The sampling technique used was total sampling technique. Data collection was carried out using the PSS-10 questionnaire consisting of several question items consisting of 5 positive question items and 4 negative question items to measure stress levels and the PSQI (Pittsburgh Sleep Quality Index) questionnaire consisting of 18 question items consisting of 7 questions. components to measure sleep quality. The collected data was then tabulated and analyzed using the Spearmen Rank test, which aims to determine whether there is a relationship between stress levels and sleep quality in new students of D3 Nursing Study Program, University of Jember, Pasuruan City Campus.

RESULT

Table 1. Characteristics of Respondents Based on Gender

Gender	Frequency (Person)	Percentage (%)
Male	18	17
Female	89	83
Total	107	100

Based on the table above, it explains that the sex of the largest new student is female as many as 66 people and the sex of the smallest new student is male as many as 58 people.

Table 2. Characteristics of Respondents by Age

Age	Frequency (Person)	Percentage (%)
17 years old	9	8,4
18 years old	50	46,7
20 years old	38	35,5
20 years old	10	9,3
Total	124	100,0

Data source: Primary

Based on the table above, it explains that the age of new students is 18 years old as many as 50 (46.7%) people and the smallest new student age is 20 years old as many as 10 (9.3%) people.

Table 3. Characteristics of Respondents by Year of Entry

Years of admission	Frequency (Person)	Percentage (%)
Class of 2020	107	100
Total	107	100

Data source: Primary

Based on the table above, it explains that the entry year for new students is the 2020 class, totaling 107 (100%) people.

Table 4. Student Stress Level

Stress Rate	Frequency (Person)	Percentage (%)
Heavy stress	3	2,8
Moderate stress	44	41,1
Mild stress	60	56,1
Total	107	100,0

Data source: Primary

Based on the table above, it explains that the highest stress level for freshmen experienced mild stress as many as 60 (56.1%) people and the smallest stress level for new students who experienced severe stress was 3 (2.8%) people.

Table 5. Sleep Quality For New Students

Sleep Quality	Frequency (Person)	Percentage (%)
Poor sleep quality	50	46,7
Adequat sleep quality	49	45,7
Good sleep quality	8	7,4
Total	107	100,0

Data source: Primary

Based on the table above, it explains that the highest quality of sleep for freshmen experienced poor sleep quality as many as 50 (46.7%) people and the smallest quality of sleep for new students, namely good sleep quality as many as 8 (7.4%) people.

Table 6. The Relationship between Stress Level and Sleep Quality in New Students of D3 Nursing Study Program, Unej, Pasuruan City Campus

Stress Level	Sleep Quality			Total (%)	r count	p value
	Bad (%)	Adequat (%)	Good (%)			
Weight	2 (8,0)	3 (0,0)	0 (0,0)	5 (8,0)	0,226	0,012
Medium	24 (21,0)	23 (22,0)	1 (1,0)	48 (44,0)		
Mild	24 (21,0)	23 (22,0)	7 (6,0)	54 (48,0)		
Total	50 (50,0)	49 (44,0)	8 (6,0)	107 (100,0)		

Data source: Primary

Based on the table above, the results of the rho spearmen statistical test obtained p value of 0.012, which means p value <0.05 so that H1 is accepted, that is, there is a relationship between stress levels and sleep quality in Nursing Study Program, University of Jember, Pasuruan City Campus. The value of r count = 0.226 which means that there is a weak relationship between stress levels and sleep quality in the Nursing Study Program at the University of Jember, Pasuruan City Campus.

DISCUSSION

Based on the results of research conducted by researchers in September 2020, it was found that as many as 107 new students experienced mild stress as many as 60 people (48.4%), 10 new students who experienced severe stress (10%). The results of this stress level were obtained from filling out an online questionnaire via google form filled out by new students. According to (Donsu, 2017) stress is a disturbance in the body and mind caused by changes and life guidance. Individuals will react differently to the same stressor. In addition, anxiety is also a major factor in someone experiencing stress. Anxiety is an unpleasant feeling of fear that is often accompanied by physiological symptoms. Based on the results of the study, new students were predominantly experiencing mild stress, while new students also experienced severe stress. because they experienced a transition from high school to college, so those who are not ready to face these different situations will feel stressed.

This is supported by demographic data that the class of 2020 as new students who begin to feel and undergo the lecture process with a busy lecture schedule and many tasks make them more likely to experience burnout / boredom. According to (Stuart & Sundeen, 2015) burnout is physical, emotional, and mental exhaustion caused by long-term involvement in situations filled with all kinds of demands. In addition, anxiety is also a major factor in someone experiencing stress. At the time of research during the Covid 19 pandemic, the Pasuruan City Campus Unej Nursing D3 Study Program played an active role in supporting the success of the program to prevent the spread of the corona virus outbreak as recommended by the government as regulated in government regulation No. 21 dated 31 March 2020 concerning Large-Scale Social Restrictions (PSBB). So, starting from the beginning the lecture process has been carried out online / through online media. They do not have lecturing activities on campus and are in a family environment, indirectly they also get support from their families which becomes the body's stimulus to increase endorphins which can relieve stress and anxiety. Based on the book North American Nursing Diagnosis Association International (NANDA) (Herdman, 2018) a nursing diagnosis that fits this problem is excessive stress. Excessive stress is the excessive number and types of requests / demands requiring action / response. The limitation of the characteristics of new students who do not experience stress is that they are not depressed, can make their own decisions, and are not tense. According to the book Nursing Outcomes Classification (NOC) (Moorhead Sue, 2013) the Koping outcome scale no. 1302, namely consistently showing lifestyle modifications to reduce stress, self-control, and accept the existing situation. Based on the book Nursing Intervention Classification (NIC) (Bulechek, 2013) about interventions given to increase coping, namely supporting new student relationships with other new students who have the same goal.

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Based on the results of research conducted by researchers in April 2020, it was found that the majority of students had bad sleep quality as many as 62 people (50%), only 8 people (6.5%) had good sleep quality. The results of this stress level were obtained from filling out an online questionnaire via google form that was filled out by new students. Sleep is an absolute basic need and must be met by all individuals. With adequate sleep, the new body can function optimally. It is believed that sleep can restore or rest physically after a day of activities, reduce stress and anxiety, and can increase ability and concentration when doing daily activities (Mubarak & Chayatin, 2010). In young adults, which are at this stage of development, young adults have a dense activity. The normal sleep for young adults is 7-8 hours / day (Mubarak & Chayatin, 2010). The results showed that the reasons for those who disturbed their sleep at night were because 12 of them were stressed / depressed and the majority due to deadlines on campus assignments, and the rest because of other activities. This is supported by the demographic data of the most student ages of 19 years, which are the stage of young adults who have dense activities with a need for 7-8 hours of sleep / day. In fact, their time off / personal activities when in D3 Nursing Study Program Unej Pasuruan City Campus starts at 21.00-04.00 but that time has been cut due to homesickness, deadlines on campus assignments and other activities. So that the cause of poor sleep quality is due to independent activities carried out by students. Based on research data, independent activities carried out by students such as doing college assignments with short deadlines, playing games, watching movies, operating cellphones, or other general activities. Even though, during the Covid 19 pandemic, they still had online lectures, online deadlines, and online exams. The duration of sleep needed is still insufficient to meet the quality of sleep for new students, so the research results show that sleep quality is poor. It is possible that the cause of poor sleep quality is due to the density of activities and the inability to

manage time properly. Therefore, there needs to be an intervention to design activities for students so that the schedule of activities and sleep time can be well structured.

Based on the book North American Nursing Diagnosis Association International (NANDA) (Herdman, 2018) nursing diagnoses in accordance with this problem are sleep pattern disorders. Sleep disruption is a disturbance in the amount and quality of sleep (cessation of consciousness, periodic) that is limited in quantity and quality. The limitation of the characteristics of new students who do not experience sleep pattern disturbances, namely the need for adequate sleep, not experiencing fatigue / fatigue, feeling comfortable according to the book Nursing Outcomes Classification (NOC) (Moorhead Sue, 2013) Sleep outcome scale no.0004, which is not experiencing interference with a scale of 5 on sleep pattern indicator, feeling refreshed after sleeping, and comfortable bed & room temperature. Based on the book Nursing Intervention Classification (NIC) (Bulechek, 2013) about interventions given to improve sleep quality, namely determining the client's sleep patterns or activities such as the recommendation to take a nap if indicated to meet sleep needs but ≤ 30 minutes, so that clients feel refreshed when they wake up , and during the day there are very minimal sleep disturbances because students only have class hours.

Based on the results of data processing using SPPS 17.0, it was found that the independent variable stress level had a relationship with the dependent variable Sleep Quality. This is in accordance with statistical tests using the Sperman Rho test, the p value is $0.012 < 0.005$. This means that H1 is accepted, then there is a relationship between stress levels and sleep quality in new students of D3 Nursing Study Program, Unej, Pasuruan City, with a correlation coefficient of 0.226. it means the level of strength of the relationship is weak.According to (Mubarak & Chayatin, 2010) factors that affect sleep quality include diseases that cause pain or physical distress that can cause sleep disturbances, but emotional stress can also

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affect sleep quality. If you experience this condition, it can increase blood norepinephrine levels which causes a reduction in the cycle of NREM sleep cycle stage IV and REM sleep and frequent waking during sleep. Based on the results of the study, only 10 people experienced severe stress and 62 people had poor sleep quality. Researchers assume that environmental factors can affect stress levels and sleep quality in a person. Respondents who have been in a family environment where in that environment they feel comfortable, feel close to family and can treat homesickness and stress which is the main cause of stress that can affect the quality of their sleep. But even like that, the sleep quality of young adults in their hometowns does not change the quality of their sleep, which is still poor. Researchers assume that because there are still online lectures, deadlines for assignments, and exams imposed on students as well as the habit of sleeping from midnight to early morning which is often done by students such as watching movies, playing games, reading novels, operating cellphones and other activities that are often carried out while in place. overseas / at the lodge..

CONCLUSIONS

1. The level of stress experienced by 60 new students of D3 Nursing Study Program, Pasuruan City Campus, 60 people with a percentage of 48.4% experiencing mild stress
2. The quality of sleep experienced by new students of D3 Nursing Study Program, University of Jember, Pasuruan City Campus, 62 people with a percentage of 50% experiencing poor sleep quality
3. There is a relationship between stress levels and sleep quality in new students of D3 Nursing Study Program, University of Jember, Pasuruan City Campus

SUGGESTIONS

1. Educational / Nursing Institutions
2. For educational institutions as a source of updated information and the development of knowledge about stress levels with the

quality of sleep experienced by new studentsS

3. Further researchers
4. For further researchers, it is hoped that they will be able to develop this research in terms of methods, data collection time is carried out when new students have returned to their activities in the campus environment, which is where new students study for lectures.

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