

## The Relationship between Sleep Pattern Disorders and Learning Concentration of Level 3 Nurse Students at STIKes Santa Elisabeth Medan

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### ABSTRACT

Concentration is one of the main factors that can affect the learning process, increasing one's concentration, the more effective learning activities are and vice versa, the factors that cause a person to have difficulty concentrating include thoughts, something will happen, lack of interest in lessons, crowded classroom conditions, unsupportive atmosphere, individual weakness in controlling his thoughts, and disturbed sleep patterns. The need for sleep will have an impact on a decrease in concentration, people who experience obstacles in the learning process caused by a sense of lack due to disturbing sleep patterns, so that their learning concentration decreases. The purpose of this study was to determine the relationship between sleep pattern disturbances and the learning concentration of Level 3 Nurses at STIKes Santa Elisabeth Medan 2022. This study uses a cross-sectional approach. This instrument uses a questionnaire. The number of samples in this study are 85 people. Analysis of the chi square test data with the results of the study. 12 out of 24 respondents (50.0%) had poor sleep pattern disorders with low learning concentration, 12 out of 24 respondents (50.0%) had sleep pattern disorders with high learning concentration, as many as 11 out of 61 respondents (18, 0% ) have a bad sleep pattern disorder with low learning concentration, 50 and 61 respondents (82.0%) have a good sleep pattern disorder with high learning concentration. Results Based on the chi square statistical test, a p-value of 0.

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## 1. INTRODUCTION

Learning is a change in behavior as a result of the interaction between stimulus and response. many factors influence the learning and teaching process, one of which is the concentration factor. concentration is one of the main factors in the learning process (Restrepo Klinge, 2019). The concentration level of student learning is influenced by several factors including internal factors and external factors. External factors are factors that consist of social and non-social conditions, while internal factors are factors that can affect a person's physiology (Caesaridha, 2021). Many students experience difficulty concentrating, especially studying subjects that have a fairly high level of difficulty. The American psychiatric association states that the incidence of learning concentration with or without hyperactivity is 1-20%, and this concentration problem is more common in men than women. (Annisa et al., 2019).

Sleep has an important role in human health. From a neurological and endocrine perspective, there are many potential factors that can interfere with sleep. The prevalence of sleep pattern disturbances in the world varies widely, ranging from 15.3% -39.2%. According to the National Sleep Foundation (2018), sleep pattern disturbances worldwide account for 67% of 1,508 people in Southeast Asia and 7.3% of sleep pattern disturbances occur in college students. data in Indonesia itself shows that most of the quality of sleep in adolescents is around 63% (Wahid, et al, 2019). People who have disturbed sleep patterns tend to have decreased memory and concentration. This is due to the existence of neurobehavioral and neuropsychomotoric systems which can cause a decrease in one's memory. The aim of this research is To find out the relationship between sleep pattern disturbances and the learning concentration of Level 3 Nurse Students at STIKes Santa Elisabeth Medan in 2022.

Based on (Caesaridha, 2021) there are two factors that influence the concentration of learning namely internal and external factors

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Based on the background above, the researchers are interested in researching "The Relationship between Sleep Pattern Disorders and the Learning Concentration of Nurse Students Level 3 STIKes Santa Elisabeth Medan in 2022".

## 2. METHOD

The design used in this study is a cross sectional design. This research was conducted at STIKes Santa Elisabeth Medan from April to May 2022. The number of respondents in this study were 85 respondents. The sampling technique used the total sampling technique. The instrument used is the PSQI questionnaire and learning concentration. Data analysis using univariate and bivariate analysis. The data is processed and analyzed using the SPSS program

## 3. RESULTS AND DISCUSSION

The distribution of respondents based on gender of the 85 respondents studied by the researcher found that the highest number of respondents were female, 76 respondents (89.4%), and male, 9 respondents (10.6%). The results of the analysis showed that the characteristics of respondents based on gender were that the majority of respondents were female, 79 respondents (89.4%), this is because women experience sleep pattern disturbances and memory loss more often than men. The results of research conducted at STIKes Santa Elisabeth Medan found that 62 respondents (72.9%) had high learning concentration and 61 respondents (71.8%) had good sleep patterns, according to Wulandari's research results, W. Ladewig Patricia, 2014 conducted on 65 respondents there were 53 (81.5%) had poor sleep pattern disturbances, and only 12 (18.5%) had good sleep quality, this was because the higher the semester, the more often the respondent's sleep time decreased, the results of this study indicate a good sleep pattern can improve one's learning concentration. For education is expected

Table 1. Frequency Distribution and Presentation of Study Concentration for Nurse Students Level 3 STIKes Santa Elisabeth Medan in 2022

| Study concentration | Frequency (f) | Percentage (%) |
|---------------------|---------------|----------------|
| 1. Low              | 23            | 27,1           |
| 2. Tall             | 62            | 72,9           |
| <b>Total</b>        | <b>98</b>     | <b>100</b>     |

Based on the picture above The research results obtained showed that the concentration of student learning was in the low category of 23 people (27.1%) caused by various factors, one of which is disturbed sleep patterns and lack of interest in learning so that the concentration in learning is lacking, and as high as 62 people (72.9%) this is because students have high learning interest and effective sleep patterns.

Table 2. Frequency Distribution and Presentation of Sleep Pattern Disorders for Nurse Students Level 3 STIKes Santa Elisabeth Medan in 2022

| No. | Sleep disorder | Frequency (f) | Percentage (%) |
|-----|----------------|---------------|----------------|
| 1.  | Bad            | 24            | 28,2           |
| 2.  | Good           | 61            | 71.8           |
|     | <b>Total</b>   | <b>85</b>     | <b>100</b>     |

Based on the picture above obtained The results of the study showed that disrupted student sleep patterns were in the good category of 61 respondents (71.8%), this was due to the effective sleep quality and sleep time of students, namely 7-8 hours and disrupted sleep patterns were in the bad category of 24 respondents (28.2%) this is due to the many assignments given by the lecturers and the many activities that disturb their sleep time

Table 3. The Relationship between Sleep Pattern Disorders and Nurse Study Concentration Level 3 STIKes Santa Elisabeth Medan in 2022

| Disturbance<br>Sleep pattern | concentration |    |      |    |    |     | <i>p-values</i> |
|------------------------------|---------------|----|------|----|----|-----|-----------------|
|                              | Low           |    | Tall |    |    |     |                 |
|                              | f             | %  | f    | %  | f  | %   |                 |
| Bad                          | 12            | 50 | 12   | 50 | 24 | 100 | 0.007           |
| Good                         | 11            | 18 | 50   | 82 | 61 | 100 |                 |

Based on the table above on the distribution of respondent data, the results of an analysis of the relationship between sleep pattern disturbance and the learning concentration of nurse students at level 3 at STIKes Santa Elisabeth Medan were obtained. Based on the results of the chi square test as many as 12 out of 24 respondents (50.0%) disturbed sleep patterns with high learning concentration, as many as 50 of 61 respondents (82.0%), with a p-value of 0.007

#### 4. CONCLUSION

Disruption of Sleep Patterns Student Nurses 3 STIKes Santa Elisabeth Medan is having a good sleep pattern disorder as many as 61 people (71.8). The learning concentration of Nurse 3 STIKes Santa Elisabeth Medan students has a high concentration of learning as many as 62 respondents (72.9). There is a significant relationship between sleep pattern disturbances and the learning concentration of Santa Elisabeth Medan STIKes students, obtained p-value = 0.007 < 0.05 which states that there is a relationship between sleep pattern disturbances and student learning concentration

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