The correlations between interpersonal communication and stress on academy students during scientific papers preparation at nursing academy of 17 karanganyar

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Abstract. Communication is the relationship of contact between and between human beings both individuals and groups. Interpersonal communication is the process of exchanging information between someone with at least one other person or usually between two people who can be directly known backwards. Stress is an organism's reaction to unpleasant (stimulation), stress must be understood as an interactive relationship that occurs between physical, physiological, psychological and behavioral systems. Factors suspected to affect stress are biological, psychological and socio-cultural factors. This study aims to determine the relationship of interpersonal communication of students in the manufacture of scientific papers against stress. The type of research used is the type of quantitative research with correlational research design and through a cross sectional approach. The sample of this research is 55 students who are conducting scientific writing papers in Akper 17 Karanganyar, which has fulfilled the criteria of inclusion and exclusion selected in total sampling. Measurement of interpersonal communication and stress using questionnaires. Hypothesis test using chi-square. The result of chi-square test shows that p value 0,004 (p <α) means there is interpersonal communication relation of student in making scientific writing to stress.

1. Introduction
In this globalization era, we often find ourselves dealing with problems we must face. Those problems may come from external and internal factors. Not all individuals are having their own way to overcome problems, but when some people cannot handle their own problems it may causes stress.

According to the report of Basic Health Research[1] Stress sufferers above 15 years old in Indonesia has reached 46%. One-third of them have heavy stress. Those data indicates 11.6% people suffered emotional mental illness, which occurred to college students during final project preparation. Such as looking for their supervisor which consist of several profiles, and students must understand their supervisor. Therefore, the writing and advising process can be proceeded smoothly without any psychological barriers.

University of Indonesia, explained that stress is a subjective phenomenon that has different levels in each individual. A stress in someone may not be a stress in another. Stress is a reaction that occurs caused by several demands. For example: when a person facing an important challenge, when facing a threat, or when a person have to overcome unrealistic expectation from his environment[2].

Stress is a condition caused by interaction between individual and environment, it creates perception of demands that come from biological and psychological system, and social environment[3]. Stress is a
condition where a pressure felt by a person does not proper to his ability to solve it. Stress also can be defined as a pressure, tension, or displeased illness from outside individual [4].

At some level, stress can happen to anyone including college students. A research about stress has been done in several university in Indonesia. The research on 100 participants shows that stress prevalence on college students is 38% [2]. Student is someone who is in learning or studying process and registered as academician in one of college form which consist of Academy, Polytechnic, High School, Institution, or University [5].

College student is described as individual who is studying in a public or private college, or in other institution in the same level [6]. College student experiences transition from a high school student to be student in a college. This transition stimulates them to face some demand and new development. It appears because there is a transformation of several functional aspect, such as physic, psychological and social [7].

One of assignments used as graduation requirement in Diploma 3 degree is final project called Scientific Paper (KTI). During KTI preparation, student is challenged and trained to do scientific activities which examine a theory and solve a problem with critical thinking [8]. Lecturer role in KTI guidance is only as helper to solve difficulties and problems during KTI preparation. The common problems that appears during KTI preparation such as there are many student has less ability to write, less adequate in academic ability, also students has no interest for doing research [7].

Failures during KTI preparation is also caused by the difficulty in seeking title, searching literatures and books, limited budget, also worrying about bad interpersonal communication between student and his or her supervisor. If those problem causes pressure on student, then it may become a stress.

2. Method

The type of this research uses quantitative research. Consequently, this research is used by considering statistics that shows research conclusion focusing on numbers; objective and universal [9].

The design used in this research is correlational, which is finding the correlation between influence and affected variable [10]. This research uses correlational variable: finding connection between dependent and independent variable through cross sectional approach where those variables measured in the same time. In this research used cross sectional approach to see correlation between student`s interpersonal communications when creating scientific paper against stress at Nursing Academy of 17 Karanganyar.

3. Result And Discussion

Karanganyar, its aim to find out the correlations of interpersonal communication during preparation of scientific paper against stress on final grade students at Nursing Academy of 17 Karanganyar in 2018. The system to be built in this study is an application that can detect stress levels in students. In this research, the steps performed before the training and testing process is taking data using questionnaires. The data taken are data from the research object, in this case, are students and answered based on what they experienced.

3.1. Univariate Analysis

| Variable | Age | Frequency (n) | Percentage (%) |
|----------|-----|---------------|----------------|
|          | 19-24 | 50             | 90,9            |
|          | 25-36  | 5              | 9,1             |
| Gender   | Male  | 11             | 20,0            |
|          | Female | 44             | 80,0            |
|          | Total | 55             | 100,0           |
The result of Respondent characteristics distribution based on Age at table 1 shows that respondents at age of 19 until 24 years old are 50 respondents (90.9%) and at age of 23 until 36 are 5 respondents (9.1%).

The result of Respondent characteristics distribution based on Gender at table 5.1 shows that male are 11 respondents (20%) and female are 44 respondents (80%).

| Table 2. Respondent Frequency Distribution based Interpersonal Communication |
|-----------------------------|---------|---------|
| Variable                  | Frequency (n) | Percentage (%) |
| Communication             |                      |
| Good                      | 15                   | 27.3            |
| Not Good                  | 40                   | 72.7            |
| Total                     | 55                   | 100.0           |

The result of Respondent Frequency Distribution based Interpersonal Communication at table 2 shows that majority of respondents, in number of 40 respondents (72.7 %), are categorized as Not Good interpersonal communication. And 15 respondents (27.3 %) are categorized as Good interpersonal communication.

| Table 3. Respondent Frequency Distribution based on Stress Level |
|---------------------------|-------------|-------------|
| Variable                  | Frequency (n) | Percentage (%) |
| Stress                    |              |              |
| Low                       | 28           | 50.9         |
| Medium                    | 19           | 34.5         |
| Heavy                     | 8            | 14.5         |
| Total                     | 55           | 100.0        |

The result of respondent frequency distribution based on stress level at table 3 shows that majority of respondents, in number of 28 respondents (50.9%), experienced Low stress, the other 19 respondents (34.5 %) experienced Medium stress and 8 respondents (14.5 %) suffered Heavy stress.

3.2. Bivariate Analysis

Bivariate analysis in the research using comparative test known as Chi-square with result from 55 respondents. This Chi-square test is used for finding correlation between interpersonal communication and stress during scientific papers preparation. Chi-square test is one of nonparametric tests (unspecified parameters of distribution) which often used in research that require two variables; nominal and ordinal or comparative test and proportion samples [11].

| Table 4. The Correlations of Students Interpersonal Communication Against Stress During Scientific Papers Preparation |
|---------------------------------------------------------------|-----------------|---------|-------------|
| Stress Levels       | Interpersonal Communication | Total | Value | r     | R square | p   |
|                    | Good | Not Good |       |       |        |     |
| Low                | 13   | 15       | 28    | 0.266 | 10.866 | 0.004 |

Result from tabel 5.4 shows that from 55 respondents, chi-square is concluded statistic value (X2) in amount of 10.866 with significant level 0.05 that is 0.266 obtained p value 0.004 where p value < 0.05. Therefore, the hypothesis which stated that there are correlations between Interpersonal Communication and Stress on Academy Students, has proven with significant relation.
4. Conclusion
Bivariate analysis in the research using comparative test known as Chi-square with result from 55 respondents. This Chi-square test is used for finding correlation between interpersonal communication and stress during scientific papers preparation. Chi-square test is one of nonparametric tests (unspecified parameters of distribution) which often used in research that require two variables; nominal and ordinal or comparative test and proportion samples.

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