

# Relationship of Knowledge Level with the Skills of Students / Level II in Conducting Practices in Basic Nursing Laboratory at Government Nursing Academy Central Tapanuli District

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**Abstract:-** Practical knowledge of basic nursing laboratory I is considered the basic skills for grade I students. Laboratory practical skills are important because they teach about basic nursing techniques to meet the basic needs of everyday humans that are commonly encountered.

**This study aims to determine the relationship between knowledge and skills of students of Level II students in Doing Basic Nursing Laboratory Practices I. The type of research used is descriptive analytic with cross sectional approach techniques. The data analysis used was Univariate and Bivariate analysis. Bivariate analysis performed the Spearman Rank Correlation test. The results of the study there is a relationship between the level of knowledge and the skills of Level II students in performing basic nursing laboratory practice I at the Academy of Nursing Central Tapanuli Regency with a p value of 0.04 and a value of  $\alpha = 0.05$  is obtained. It is hoped that there will be an increase in the knowledge and skills of students about Basic Nursing Laboratory Practice I by meeting the appropriate demonstration laboratory practice schedule related to Basic Nursing Laboratory Practice I on an ongoing basis.**

**Keywords:-** Knowledge, Skills, Basic Nursing Laboratory Practices Action.

## I. INTRODUCTION

Teaching and learning activities using laboratory practical methods are provided to support student recognition of direct nursing actions to patients or pantoms. Teaching and learning activities use the stages of nursing action work procedures in meeting basic human needs. This Nursing Laboratory Practice is one of the institutional efforts to apply directly all the basic human needs theory (KDM) I that students have obtained during their 1st semester of education (Maryuani, 2009).

Practical knowledge Basic nursing laboratory I is considered the basic skills for level I students (Parajulee&Selvaraj, 2011). Laboratory practical skills are important because they teach about basic nursing techniques to meet the basic needs of everyday humans that are

commonly encountered (Fajarwati, 2012). Today, it is demanded the availability of human resources who are able to work professionally in all fields including health service efforts. The role of health workers will determine the success of the implementation of development programs in the health sector to achieve the vision of a Healthy Indonesia. One of the strategies to achieve a Healthy Indonesia is to increase the quality of health personnel resources. In order to produce health workers in accordance with the needs both in terms of quantity and quality, professional educational management is required. Efforts to create smart and competitive students in the health sector by increasing the knowledge and skills possessed by students.

Student Practitioners in carrying out each particular action / tactic systematically so that the mastery of nursing skill competencies is more optimal.to be applied by students and nursing practitioners in the hospital, considering that it is arranged very simply so that it facilitates the practical aspects of working steps, but still in accordance with the procedural principles of nursing action theoretically.

Learning following Basic Nursing Laboratory Practices I of Students will be able to master the theoretical concepts of basic human needs and types, benefits, and manuals for using medical devices as a basis for fulfilling clients' basic needs, so as to achieve the Competency-Based Curriculum Competency System which further develops and empowers all the potential of students both cognitive, affective and psychomotor with an emphasis on a number of competencies that students must have. In laboratory practice meetings 11 hours a week, which is given by three lecturers and four laboratory supervisors to be able to produce professional nurses who have skills and are reliable in carrying out basic nursing laboratory practical actions I.

To achieve this, practical learning is an important part of the educational process that is integrated in all educational programs, especially the achievement of goals for graduates. One of the practical lessons referred to is the fulfillment of basic human needs and physical examination techniques in nursing. Therefore, enrichment or strengthening is needed so that students can fulfill basic human needs and can carry out a professional physical

examination to determine the problems faced by clients in order to solve these problems from a nursing perspective.

**II. RESEARCH METHOD**

The type of research used is descriptive analytic with cross sectional approach technique. This is to determine the relationship between the level of knowledge and the skills of level II students in carrying out basic nursing laboratory practice actions I in Nursing Academy of Central Tapanuli District. The population in this study were all students of level II Nursing Academy of Central Tapanuli District Government, totaling 46 people. The research instrument is a questionnaire and Standard Operating Procedure (SOP). The questionnaire in this study consisted of two parts, namely part (1) containing questions about

basic nursing laboratory practices I and section (2) containing the characteristics of the respondent's Standard Operating Procedures (SOP). The data analysis used was Univariate and Bivariate analysis. Bivariate analysis was carried out to determine the relationship between the level of knowledge and skills of students in carrying out basic nursing laboratory practice actions I carried out the *Spearman Rank Correlation test*.

**III. RESULTS AND DISCUSSION**

After conducted this research it is obtained the results as:

*A. Univariate Analysis*

Table 1. Frequency Distribution of Respondents Age Characteristics at the Nursing Academy of the Central Tapanuli District Government

No	Age (Years)	Frequency	Percentage(%)
1	19 – 21	37	80,4
2	22 – 24	9	19,6
	Total	46	100

Table 2. Frequency Distribution of Gender Characteristics of respondents in the Nursing Academy of the Central Tapanuli District Government

No	Age (Years)	Frequency	Percentage(%)
1	Male	8	17,4
2	Female	38	82,6
	Total	46	100

Table 3. Level II Student Knowledge about Basic Nursing Laboratory Practices I Nursing Academy Central Tapanuli District Government

No	Knowledge Level Category	Frequency	Percentage(%)
1	Good	23	50
2	Satisfactory	15	32,6
3	Fair	8	17,4
	Total	46	100

Table 4 Level II Student Skills on Basic Nursing Laboratory Practices I Nursing Academy Central Tapanuli Regency Government

No	Skill Category	Frequency	Percentage(%)
1	Good	22	47,8
2	Satisfactory	14	30,4
3	Fair	10	21,8
	Total	46	100

*B. Bivariate Analysis*

Table 5. Chi-Square Test Results between Levels of Knowledge and Skills of Level II Students in Performing Basic Nursing Laboratory Practices I at the Academy of Nursing, Central Tapanuli Regency Government

No	Knowledge		Skill			Total	α	Sig p
			Good	Satisfactory	Fair			
1	Good	Baik	16	7	0	23	0,05	0,04
2	Satisfactory	Cukup	5	4	6			
3	Fair	Kurang	1	3	4			
	Total		22	14	10	46		

From the table above it is known that, the majority of respondents are aged 19-21 years, namely 80.4% and the minority of respondents are aged 22-24 years, namely 19.6%, the majority of respondents are female, namely 82.6% and minority of respondents male gender, namely 17.4%, the majority of respondents have good knowledge of basic nursing laboratory practice I, namely 50%, sufficient knowledge is 32.6% and knowledge is lacking, namely 17.4%, the majority of respondents have good skills about basic nursing laboratory practices I is 47.8%, sufficiently skilled is 30.4%, and less skilled is 21.8%.

The results of statistical test data processing using the Chi-Square test resulted in a  $p$  value of 0.04 which is smaller than the value of  $\alpha = 0.05$ , so there is a significant relationship between the level of knowledge and the skills of nurses in carrying out Basic Nursing Laboratory Practices level I at NURSING ACADEMY of Central Tapanuli District Government.

➤ *Knowledge of Basic Nursing Laboratory Practices I at the Nursing Academy of the Central Tapanuli District Government*

The results showed that the level of knowledge of respondents about good Basic Nursing Laboratory Practices I was 23 (50%) students, only 15 (32.6%), Satisfactory is 8 (17.4%). From the results of the research conducted by researchers, it was shown that the level of knowledge of Level II Students about Basic Nursing Laboratory Practices I was in a Good category. The factors that can affect knowledge can be obtained from various sources. The knowledge obtained by respondents comes from various sources, such as: books, mass media and education that have been obtained. The existence of new information about a matter can provide a new cognitive basis for the formation of knowledge about it. It is hoped that education and practice can improve their abilities, both in knowledge, skills and attitudes (Notoatmodjo, 2007).

From the results of research conducted by researchers, it shows that the level of knowledge possessed by Level II Students in the Nursing Academy of Central Tapanuli Regency regarding Basic Nursing Laboratory Practices I has a Good category of 23 (50%) Students, from the results of the research the average respondent can answer questions regarding the meaning, goals and actions of Basic Nursing Laboratory Practices I. Knowledge is the result of human senses, or the result of a person's knowing of objects through their senses (eyes, ears, nose, etc.). By itself, at the time of sensing, that knowledge is greatly influenced by the intensity of attention and perception of the object. Most of one's knowledge is obtained through the sense of hearing and the sense of sight. Knowledge is a very important domain for the formation of one's actions (Maulana, 2009).

Because you have followed the teaching and learning process, it can be interpreted as a process to increase knowledge, understanding the skills obtained through the study of the learning process. A person's knowledge is influenced by education, this can be seen from the results of research where the majority of 46 respondents have good

knowledge, namely 23 (50%) students and a minority with less knowledge as many as 8 (17.4%) students.

➤ *Student Skills in Performing Basic Nursing Laboratory Practices level I*

The results showed that respondents in the good skills category were 22 (47.8%), 14 (30.4%) quite skilled categories were 10 (21.8%) students. From the results of research conducted by researchers, it shows that the skills of students in performing basic nursing laboratory practice I have a good skill category.

The results of this study indicate that students at the Nursing Academy of the Central Tapanuli district government can perform basic nursing laboratory practice actions I. This is inseparable from the practical learning activities that have been followed by all respondents, in this skill research the average respondent is able to take action. existing in the SOP regarding the management of infusion. Factors that can affect skills according to Bertnus (2009) are knowledge, experience, desire / motivation. A student must have certain factors that can affect skills, this is related to the actions that must be taken to build a good skill.

These skills must always be improved / developed and maintained so as to ensure that students can carry out their roles and functions in a professional manner (Musliha, 2010). To improve skills can be done by participating in training. Continuous training is needed to maintain students' skill abilities in carrying out practical actions (Chaundry, 2011).

➤ *Relationship between Knowledge Level and Skills of Level II Students in Performing Basic Nursing Laboratory Practices I*

The results of the research conducted showed that the results of data processing using the Chi-Square test resulted in a  $p$  value of 0.04 which was smaller than the value of  $\alpha = 0.05$ , it can be concluded that  $H_0$  was rejected and  $H_a$  was accepted, which means that there is a significant relationship between the level of knowledge and Student skills in doing basic nursing laboratory practice I, and obtained a value of  $\alpha = 0.05$ , this means that the existing relationship is strong and with a positive  $\alpha$  value direction.

This is in accordance with the theory put forward by Cristian (2008) that good knowledge is very influential on good skills, skills or the ability of a person to apply their knowledge into the form of action where students must have good skills in effective communication, objectivity and ability to make decisions. Clinical appropriately and precisely so that the treatment of each patient is maximized. Students' knowledge and skills are needed especially in clinical decision making where skills are very important in assessment; to support this requires knowledge and skills in carrying out nursing actions.

Student knowledge and skills are very important in it because it is a special assessment in determining graduation from education level and becomes the capital to apply it to community service (Oman, 2008).

Respondents who are categorized as having good knowledge will be better able to understand about basic nursing laboratory practice actions level I. Meanwhile, respondents who have less knowledge will tend to fail in taking basic nursing laboratory practice actions level I and will follow remedial. This is experienced by respondents not only emotionally but because there is an error in knowledge, the more knowledge one knows, the more capable a person will be to do something better. Factors that affect knowledge include education, age, occupation, income and sources of information obtained from various sources (Notoatmodjo, 2010).

The results of the research found by researchers about the relationship between the level of knowledge and the skills of Level II students in carrying out basic nursing laboratory practice actions I in Nursing Academy of Central Tapanuli District. The majority of Nursing Academy is good. However, the researcher suggested that the second level students should always be present to take part in laboratory practice because 23 students were found to have good knowledge but 7 of them had sufficient skills. Therefore, the practice of carrying out laboratory practical actions must be further improved so that the knowledge and skills of students are the same and appropriate. In this case, it is also expected that the Nursing Academy of Central Tapanuli District Lecturers are expected to increase the meeting and laboratory practice time on performing basic nursing actions level I in accordance with SOP (Standard Operating Procedure).

#### IV. CONCLUSION

The level of knowledge of Level II students about basic nursing laboratory practice I at the Nursing Academy of the Central Tapanuli district government is mostly in the good category, namely 23 (50%). Most of the second level students' skills about basic nursing laboratory practice I at the Nursing Academy of the Central Tapanuli district government were mostly in good category, namely 22 (47.8%). There is a relationship between the level of knowledge and the skills of Level II students in carrying out basic nursing laboratory practice actions level I at the Nursing Academy of the Central Tapanuli Regency Government with a  $p$  value of 0.04 and a value of  $\alpha = 0.05$ , which means that the existing relationship is strong with direction. The positive  $\alpha$  value is unidirectional. It is hoped that there will be an increase in the knowledge and skills of students about Basic Nursing Laboratory Practices I by meeting the appropriate demonstration laboratory practice schedule related to Basic Nursing Laboratory Practice level I on an ongoing basis.

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