

DIFFERENCES IN KNOWLEDGE OF STANDARD FOR PROVIDING BLS TO MEMBER NURSING STUDENTS AND NON-MEMBERS OF EMERGENCY NURSING TEAM (ENT) AT UNIVERSITY OF RESPATI YOGYAKARTA

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Abstract

Cardiac arrest is an emergency condition that can occur in a hospital, called Hospital Cardiac Arrest (HCA) and outside the hospital, called Out Hospital Cardiac Arrest (OHCA) which requires Basic Life Support (BLS) with Cardio Pulmonary Resuscitation (CPR). Nursing students as the bystander of CPR in the community need the development of knowledge and skills in conducting early CPR by attending informal education, which organizes an emergency nursing training such as the Emergency Nursing Team (ENT). Therefore, research regarding the knowledge of the standard for providing to nursing students is essential. The aim of this study was to determine the differences in knowledge of standard for providing BLS to member nursing students and non-members of Emergency Nursing Team (ENT) at University of Respati Yogyakarta. This study is a descriptive analytic comparative study with a cross-sectional design. The sampling technique used was saturated sampling in ENT members with 34 ENT members and simple random sampling for non-ENT members with 34 ENT members. Data retrieval was carried out on March 18-23 2019 using the BLS standard guideline observation instrument. Bivariate analysis using the Chi-Square test with a significant level of 0.05. The majority of ENT members have a good knowledge of standard to provide BLS more than non-ENT members. The results of the statistical test between ENT membership and standard knowledge of giving BLS were obtained p-value = 0.026 (<0.05). There is a significant difference in the knowledge of the standard for providing BLS to nursing students members and not members of the Emergency Nursing Team (ENT) at the University of Respati Yogyakarta.

Keywords : knowledge, emergency

1. INTRODUCTION

Cardiac arrest is an emergency that occurs when the heart stops beating and stops circulating blood [1]. Cardiac arrest can occur in a hospital, called Hospital Cardiac Arrest (HCA) and outside the hospital, called Out Hospital Cardiac Arrest (OHCA). OHCA is one of the focuses of world health problems because of the high incidence rate, the global incidence of OHCA is 50 to 60 per 100,000 people/year. The incidence of OHCA is as many as 300,000 cases in Europe and 420,000 cases in the United States [3]. The high incidence of OHCA is also followed by a very small survival rate of patients with OHCA, which is only 12 [2]. Heart and blood vessel disease is the first cause of death in

Indonesia. Patients with heart disease have a risk of experiencing sudden cardiac death or cardiac arrest [4]. The prevalence of heart disease (doctor's diagnosis) in the population of all ages according to the province in Indonesia is 1.5% of the population, the highest prevalence occurs in North Kalimantan Province which is 2.2% followed by Gorontalo Province in second place, and DI Yogyakarta Province is in third position [5]. The prevalence of heart disease in DI Yogyakarta on patients with coronary heart disease at age ≥ 15 years based on diagnosis and symptoms is 36,104 people and heart failure at age pada 15 years based on diagnosis and symptoms is 11,109 people [6].

OHCA treatment strategies that can be done are Basic Life Support (BLS) with chest compression or Cardio Pulmonary Resuscitation (CPR). Nursing students as a bystander of CPR in the community need updated knowledge and skills in conducting early CPR so that after graduating and working as a nurse can respond quickly, responsibly, and effectively in providing assistance to victims with OHCA [7]. Nursing student knowledge influences the behavior of CPR given because knowledge is one of the factors that determine behavior, knowledge is obtained after attending both formal and informal education [8]. Informal education that can be taken by nursing students to study CPR is by attending training or joining organizations that conduct emergency nursing training such as the Emergency Nursing Team (ENT) as an emergency nursing team that conducts emergency and disaster management training for nursing students and collaborates with agencies engaged in health and disaster management [9]. Research to measure the standard knowledge of giving BLS to nursing students is very important to do. Therefore, this study was conducted to determine the differences in the standard knowledge of BLS giving to nursing students members and not members of the Emergency Nursing Team (ENT) at the University of Respati Yogyakarta.

[1].
2. METHOD

This research is a descriptive analytic comparative study with a cross-sectional design. This research was conducted at the University of Respati Yogyakarta Campus on March 18-23 2019. The affordable population in this study were 47 nursing students from ENT University of Respati Yogyakarta members and 180 of 8-semester nursing students who took Emergency and Critical Nursing Courses which were not is an ENT member. The sampling technique used in this study was saturated sampling in ENT members and simple random sampling for non-ENT members who matched the inclusion and exclusion criteria. In this study, the sample used was divided into 2 groups, ENT member groups as many as 34 people and non-ENT members as many as 34 people. The independent variables in this study are ENT members and not ENT members. The dependent variable in this study is the knowledge of standard for providing BLS. Knowledge of the standard for providing BLS is measured using the observation guidelines for providing BLS which lists the observed activities in the form of operational standards for procedures for providing BLS consisting of 19 steps of activities filled by researchers as observers by giving a score "1" if the BLS is taken and a score "0" if the steps for providing BLS are not done. Guidelines for observing the providing of BLS have been tested for content validity, which is expert judgment with an average value of 0.85. Knowledge about the standard of providing BLS is categorized as good if a score of $> 50\%$ is obtained and is categorized as poor if a score of $\leq 50\%$ is obtained. Data analysis techniques used in this study are univariate and bivariate. Univariate analysis in this study resulted in frequency distribution and percentage of respondents' characteristics, which is the age and gender of the respondents. The researchers conducted a

hypothesis test using a Chi-square test as a bivariate analysis, to see the difference in standard knowledge of providing BLS to nursing members and not members of the Emergency Nursing Team (ENT).

3. RESULT AND DISCUSSIONS

Respondent characteristics of the sex and age of the respondent

On gender characteristics of the respondent's, the majority of respondents were female in both groups as many as 28 people (82.4%) in ENT members and 25 people (73.5%) in non-ENT members. This is because the majority of nursing students at the University of Respati Yogyakarta are female. This event can occur because the nursing profession is usually more in demand by women considering the nursing profession is closer to the problems of maternal instinct that are owned by women in providing care to children and weak people [10]. In the age characteristics of the respondents, the majority had an age range of 21-25 years in both groups of 18 people (52.9%) in ENT members and as many as 30 people (88.2%) in non-ENT members.

Individuals on aged 21-25 years included in the early adult stage, individuals are said to be in early adulthood if the individual is in the age range of 21-40 years [11]. Intellectual or cognitive development achieved in early adulthood can be achieved after individuals pass through the period of adolescent development. Growth and development have a pattern of sequential trends, which means that the growth phase runs regularly and continuously, which means that each phase of growth and development will be influenced by the previous growth phase [12]. Skills that develop during adolescence will help adolescents in determining education and career in adulthood [11].

Table 1 Distribution of Frequency of Respondent Characteristics Based on Gender and Age of Member Respondents and Non-Members of Emergency Nursing Team (ENT) at University of Respati Yogyakarta, 2019

Characteristics	ENT Members		Non-ENT Members	
	Frequency	Percentage	Frequency	Percentage
Gender	(f)	(%)	(f)	(%)
Male	6	17,6	9	26,5
Female	28	82,4	25	73,5
Total	34	100,0	34	100,0
Age				
18-20 years	16	47,1	4	11,8
21-25 years	18	52,9	30	88,2
Total	34	100,0	34	100,0

Cross tabulation between respondent's sex characteristics and knowledge of standard for providing BLS was obtained p-value 0.326 for Emergency Nursing Team (ENT) members and p-value 0.535 for non-members of the Emergency Nursing Team (ENT). The p-value results obtained in both groups > 0.05 so it can be concluded that there is no significant difference in the knowledge of standard for providing BLS to the sex that is owned by members and not members of the Emergency Nursing Team (ENT). The results of this study are in line with the results of the study [13] stating that of the 39 respondents as many as 31 people (79.5%) were male and 8 people (20.5%) which results of the study to see sex relations with BLS knowledge obtained p-value 1,000 with a significance level of $\alpha 0.05$ so it was concluded that there was no relationship between sex with the level of BLS knowledge.

Cross tabulation between the characteristics of respondents aged with knowledge of standard for providing BLS provision obtained p-value 0.214 for members of the Emergency Nursing Team (ENT) and p-value 0.775 for non-members of the Emergency Nursing Team (ENT). The p-value results obtained in both groups > 0.05 so it can be concluded that there was no significant difference in the standard knowledge of the provision of BLS to the age range possessed by members and not members of the Emergency Nursing Team (ENT). The results of this study are in line with the results of the study [13] stating that the results of the study to see the relationship of age with knowledge of BLS obtained p-value 1,000 with a significance level of $\alpha 0.05$ so that it was concluded that there was no relationship between age and knowledge level. This is because the knowledge possessed by individuals is not only influenced by age but also influenced by the source of information obtained [14]. The results of this study are not in accordance with the theory put forward [12] which states that age will determine a person's knowledge relating to the development of intelligence including intelligence to communicate and handle material that is abstract and symbolic, such as speaking, playing, counting, reading, and maturity in behaving because of the different stages of cognitive development at each stage of age. The development of intelligence in individuals takes place very rapidly until the early teens (11-14 years), the percentage level of perfection of intelligence development can be achieved at the age of 13 years, which is about 92% which then continues to grow until it reaches the peak that is generally reached around the age of 20) and then there will be a decline after the age of 60 years (late adulthood).

Differences in Knowledge of Standard for Providing BLS to Member Nursing Students and Non-Members of Emergency Nursing Team (ENT) at University of Respati Yogyakarta

The results of the study showed that in the two groups of nursing students the majority had a good knowledge of the standard of providing BLS. This is because both groups have experience in obtaining BLS material, ENT members have received emergency material in the implementation of basic education and training activities and in non-ENT members have taken expert lectures and emergency nursing lab skills practice and have passed the Objective Structured Clinical Examination (OSCE) exam. Nursing students with a good knowledge of the standard of providing BLS have a different total of members with non-ENT members, that is 32 people (94.1%) in ENT members and 24 people (70.6%) in non-ENT members with the same total of respondents is 34 people in each group. This happens because ENT members are more routine in conducting emergency training and disaster management that is carried out once every week. As an evaluation and to produce members

who are competent in providing emergency and disaster management assistance, an examination is conducted for each level member of the Emergency Nursing Team (ENT). The results of this study are supported by research [15] which states that all respondents had attended BHD training and the majority of nurses had good knowledge as many as 23 people (100%) of 23 respondents. Training is an effort to develop systematically an attitude, knowledge, skill, and behavior pattern that is needed by someone to have the ability to do the task or work properly. Training has the benefit of increasing competencies in training participants through the acquisition of new skills, knowledge, attitudes, and values after training, which is displayed in the implementation of tasks or work and/or independent life [16]. The results of the bivariate analysis using the Chi-Square test showed a p-value of 0.026 which p-value value <0.05, this result showed a statistically significant difference in the standard knowledge of BHD giving to nursing members and not members of the Emergency Nursing Team (ENT).

Table 2: Differences in Knowledge of Standards for Providing BLS to Member Nursing Students and Non-Members of Emergency Nursing Team (ENT) at University of Respati Yogyakarta, 2019

ENT Membership	Knowledge of Standards for Providing BLS						P value	OR
	Good		Not good		Total			
	(f)	%	(f)	%	(f)	%		
ENT members	32	94,1	2	5,9	34	100	0,026	6,667
Non-ENT members	24	70,6	10	29,4	34	100		

4. CONCLUSION

The results showed that there were differences in Knowledge of Standards for Providing BLS to nursing students members and non-members of the Emergency Nursing Team (ENT) at University of Respati Yogyakarta with the characteristics respondents of member and not members of the Emergency Nursing Team (ENT) majority is women and had an age range 21-25 years.

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