AN INFLUENCE OF KNOWLEDGE LEVEL TO CARDIOPULMONARY RESUSCITATION (CPR) SKILLS OF NURSING STUDENTS OF MUHAMMADIYAH UNIVERSITY OF BENGKULU (BUZZ GROUP LEARNING METHOD)

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Abstract

Cardiopulmonary Resuscitation (CPR) is a set of interventions aimed at reversing and maintaining vital organ function in cardiac arrest and stopping breathing. One of the learning method that can be used to improve Knowledge and skills of heart resuscitation is by using Buzz Group method.The purpose of this research is to know the influence of Buzz Group method to Knowledge level and skills of Cardiopulmonary resuscitation in nursing students of Muhammadiyah University of Bengkulu, and to see the correlation between knowledge and the skills. This study used pre experimental method with one group pretest-posttest desaign design, the instrument used to measure knowledge is questionnaire based on American Heart Association (AHA) in 2015, whereas to measure skills used SOP heart resuscitation of Dr Mohamad saleh hospital in the city ofProbolinggo 2015.The result of T-Dependent statistic test before the interventional intervention level of knowledge of cardiopulmonary resuscitation of the students was 44,50%, after intervention of peformen knowledge level 70,46% with p value 0,000 <alpha (0,05). Can be concluded that there is an influence of Buzz Group method to Knowledge Level of Cardiopulmonary resuscitationof nursing studentsof Muhammadiyah University of Bengkulu. The result of correlation test obtained r = 0,524 with p value 0,000 <alpha (0,05) and patterned positive so it can be concluded that there is a correlation between the level of knowledge with cardiopulmonary resuscitation skillsof students, it is suggested to the academic side to apply this Buzz Group method during study.

Keywords: Buzz Group method, Cardiopulmonary Resuscitation, Knowledge, Skills

Introduction

The emergency room comes from an emergency word which means life threatening, whereas emergency need to get treatment or action immediately to eliminate life threating of the victim. Emergency can be interpreted as a sudden occurrence causing a person or a lot of people require immediately help with carefully, precisely and quickly. If not get such help then the victim will die or disability / loss of his limbs for life (Musliha, 2010).

Emergency conditions can occur everywhere, everytime andfor everyonewhich is a duty of health workers to deal with that problems. However, there is no possibility that emergency conditions can occur in areas that are difficult for health workers to reach, hence the role of the community to assist victims before they are reached by health workers is very important (Niluh, 2014).

Discussions which are conducted at several stages allow students to better remember and understand what they have discussed. Yet, the weakness of this Buzz Group methoddetermined by the student's ability to cooperate in group and takes longer than the usual learning methodologies (Abdul Furwanto, 2009).

Research conducted by Winancy et al (2015) shows that the Buzz Group method is a better method of improving husbands' knowledge of pregnant women about the signs of pregnancy, childbirth and childbirth. In addition, the results of research conducted by Ayu (2016) shows that students' knowledge about HIV-AIDS was increased using the Buzz Group method than using Lecturing Method at SMAN 2 Ungaran.

Skills is defined as an ability to translate knowledge into practice so achieveddesire work outcomes (Tommy, 2009). Skills are behaviors that indicate an individual's ability to perform certain mental or physical tasks that can be observed (Budy, 2011).

This study aims to 1) to know the level of Knowledge and Skills of Cardiopulmonary Resuscitationon of nursing students of Muhammadiah University of Bengkulu before using the

Buzz Group method. 2) to know the level of Knowledge and Skills of Cardiopulmonary Resuscitation ofnursing students of Muhammadiyah University of Bengkulu after using Buzz Group method. 3) to analyze the influence of Buzz Group method on Knowledge Level of Cardiopulmonary Resuscitation of nursing student of Muhammadiyah University of Bengkulu. 4) to know the correlation/relationship between Knowledge and Skills of Cardiopulmonary Resuscitation of nursing students of Muhammadiyah University of Bengkulu.

Research Design and Methodology

This research is a quantitative analytic research, which is a pre experiment research type with one group pre test-post test. Samples were taken at random and there was no comparison group. Subject groups were observed before and after intervention. Observations made before the experiment are called Pre Test while the observations made after the experiment are called Post Test.

This research was conducted at campus of Muhammadiyah University of Bengkulu in February 2017, Population was the whole data source that needed in a research (Saryono, 2013) population in research was all of nursing student of Muhammadiyah University of Bengkulu in total 58 students. The sample was a portion of the population representing a population. Sampling met the minimum number per group according to saryono that was 15 respondents (2013). The samples in this research were 30 people.

The data that exist in this research was secondary data in the form of the number of nursing students in the seventh semester at Muhammadiyah University of Bengkulu, while the primary data ware the level of knowledge and skills of cardiopulmonary resuscitation. Data collection to determine the level of knowledge was done by using a closed questionnaire test containing 20 questions guided by the American Heart Association (AHA) in 2015 and had been tested validity. Meanwhile, to know the skill level or skills of cardiac pulmonary resuscitation in this research was done by observation using SOP of Dr. Mohamad Saleh hospital in the city of probolinggo in 2015 which also guided by American Heart Association (AHA) year 2015. The data were analyzedusing t test dependent to see the influence of buzz group method to the level of knowledge while the correlation was used to see the relationshipbetween knowledge and cardiopulmonary resuscitation skills.

Findings and Discussion

The results of this research show that the average level of cardiopulmonary resuscitation knowledge before using the buzz group method was 44.50, whereas after using the buzz group method the average level of student's heart resuscitation was 70.46, so it can be concluded that all respondents (30 people) experienced significant increased in knowledge after using the Buzz Group method. It can be seen that all respondents (30 people) increased in skills after using Buzz Group method.

Table 1. The average level of cardiopulmonary resuscitation knowledge before and after using the Buzz Group method

Variable	Mean	SD	SE	P value	N
Knowledge					
Before	44.50	14.934	2.727	0.000	30
After	70.33	10.902	1.990		

The average level of knowledge on the prior measurement was 44.50 with a standard deviation of 14,934. In the measurement after using the Buzz Group method, the average knowledge level of 70.33 with the standard deviation 10,902 was obtained. The meandifference score between the measurement before and after was 25.833 with the standard deviation of 9,199.In theory the method of demonstration learning is effective whenis used indoors but this

method is ineffective for use in laboratories, whereas the Buzz Group method is more effectivelywhen is used in the laboratory, but it would be better if the two methods of learning can be combined into one, when learning in the room, lecturers can divide the students into several small groups consisting of 3-6 students, so that students can better understand the material presented.

From the results of this study Buzz Group method is not only effective for improving Skills of cardiopulmonary resuscitation of students but also effective to increase student knowledge. It means that the Buzz Group method is not only effective for use when learning collaboration course but also can be used when learning in the room.

In this research, it can be seen that the knowledge and skills of the nursing students of the seventh semester of Muhammadiyah university of Bengkulu about cardiopulmonary resuscitationbefore using the average Buzz Group method are still in the less category, this is seen from the assessment of cardiopulmonary resuscitation knowledge level based on 10 AHA 2015 items , an average of 30 students are still confused to distinguish cardiac resuscitation 2010 and 2015 especially when asked to mention the technique and depth and speed of chest compression for adults, children and infants, whereas after using the buzz group method the average level of knowledge of students had increased significantly with statistical test results obtained p value 0,000 (p <0.05) it could be concluded there was a significant difference between the level of knowledge before and after using the Buzz Group method.

Table 2.Knowledge level correlation analysis with Skills

		Knowledge after	Skills after
Knowledge after	Person correlation	1	.524**
	Sig. (2-tailed)		.003
	N	30	30
Skills after	Person correlation	.524**	1
	Sig. (2-tailed)	.003	
	N	30	30

Knowledge and skills (Skills) are a thing that is closely related, because from one's knowledge we can also see how skill (Skills) owned by that person. The skills of nursing students in the seventh semester before using the Buzz Group method are still various in the less skilled category this is because at the time of practice in the lab not all the lecturers directly assess the ability of students in practicing, some lecturers only invite students who want to try it, and accompanied by the will and awareness of students who are still lacking.

The knowledge and skills of cardiopulmonary resuscitation of seventh-grade nursing student of Muhammadiyah University of Bengkulu had a significant improvement after using Buzz Group method (small group) because by using Buzz Group method (small group) students were asked to practice directly the material that had been taught

From table 4.5 it can be seen that the relationship between knowledge and skill level shows a strong relationship (r = 0,524) with p value0.003 (p <0.05) and a positive pattern means the highest the level of knowledge the highest the skill level/ student skill.

Conclusion

Based on the research conducted at the University of Muhammadiyah Bengkulu, it can be concluded that:1) There was influence of Buzz Group method to the level of knowledge of cardiopulmonary resuscitation of seventh grade nursing students of Muhammadiyah University of Bengkulu with significant value (p) where the value p = 0,00 so p value <0,05.

2) There was a strong correlation between knowledge withskills of cardiopulmonary resuscitation of seventh grade nursing students of Muhammadiyah University of Bengkulu with (r = 0,524) and patterned positive.

It is expected that this research to be used as reference material as well as consideration for further research.

References

Musliha. 2010. Keperawatan Gawat Darurat Plus Contoh Askep Dengan Pendekatan NANDA NIC NOC . Yogyakarta : Nuha Medika.

Niluh, winkanda. 2014. Pedoman Praktis Pertolongan Pertama Pada Kedaruratan. Yogyakarta : katahati.

Ayu, dkk. 2016. Perbedaan Pengetahuan Tentang HIV-AIDS Pada Siswa Dengan Metode buzz group Dan Metode Ceramah Di SMAN 2 Ungaran Tahun 2016. DIV Kebidanan STIKES Ngudi Waluyo, Semarang Jawa Tengah.

Trianto. 2007. Model Pembelajaran Inovatif Berorientasi Konstruktivistif. Jakarta: Prestasi Pustaka.

Winancy, dkk. 2015. 'Perbandingan Penerapan Metode Brainstorming Dan Buzz Group Terhadap Peningkatan Pengetahuan Suami Ibu Hamil Tentang Tanda Bahaya Kehamilan, Persalinan, Dan Nifas (Studi Kasus Di Bogor)', The Southeast Asian Journal of Midwifery Vol. 1, No.1, Oktober 2015, Hal: 1-9 (4 januari 2017).

Biography

Haifa Wahyu was born on March 10th 1988 in Simpang Tiga Simpang, West Sumatera. She earned her Bachelor's degree from Nursing Faculty in Andalas University in 2012. After the graduation, she was involved as ahealth volunteer at Dompet Dhuafa, non-government organization. She earned her Magister degree from Biomedic Programme, Medicine Faculty in Andalas University, West Sumatera in May 2015. since september 2015 she has worked as a lecturer at the Nursing Program of Health Faculty, MuhammadiyahUniversity of Bengkulu.