The Effect Of First Aid Training For Health Cadres On The Knowledge, Attitude, Self-Efficacy, And Skillsat Pondok Melatipublic Health Center, Bekasi, West Of Java

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ABSTRACT
Backround: First Aid in Accidents is all forms of assistance given to someone injured or sick who requires immediate medical action. Based on data from the 2001 Indonesian National Health Survey, in 1986 there were 3,197 road accidents and 1,078 household accidents. In 1989 there was a twofold increase in the incidence. **Aim** :to prove the effect of first aid training on increasing knowledge, attitudes, self-efficacy, and skills of First Aid procedures in Posyandu Health Cadres at Puskesmas Pondok Melati, Bekasi. **Method** :The research design is a quasi-experimental design with a non-randomized pretest-posttest control group design. The sample in this study amounted to 30 people using incidental sampling techniques**Result** :The test results on the scores of knowledge, attitudes, self-efficacy, and skillfor first aid training showed that there is a difference in the scores of knowledge, self-efficacy, and first aid skills (p = 0.002; p = 0.026; p = 0.001) between the intervention group and the control group after the first aid training intervention. Meanwhile, the attitude score showed that is no difference (p=103) between the intervention group and the control group after the first aid training intervention.**Conclusion** :The results of logistic regression analysis concluded that age had a significant influence on the level of first aid knowledge, and level of educationhas a significant influence onfirst aid self-efficacy.
Keywords: First Aid Training, Knowledge, Atittude, self-efficacy, Skill

I.   Introduction

First Aid is any form of assistance given to someone who is injured or sick and requires immediate medical action. In our household environment, unexpected events often occur, especially regarding health problems. First Aid is any form of assistance given to someone who is injured or sick and requires immediate medical action. In our household environment, unexpected events often occur, especially regarding health problems. Accident problems that often occur in households are the result of biological, chemical, or mechanical accidents. Biologics can contaminated microorganisms from pets, insect stings, or animal bites. Chemicals can be liquids that are often used for floor cleaners, insect poisons, and gases. Most of the mechanic accidents are incisions ,fracture and burns.The incidence of household accidents and traffic accidents is close to our environment, so all Indonesian citizens should be able to take first aid measures for accidents both in the household and outside the home.

Knowledge is the result of knowing that occurs through sensory processes, especially the eyes and ears on certain objects. Knowledge is the result of knowing, this happens after people sense a certain object. Sensing occurs through the human senses, namely the senses of sight, hearing, smell, taste, and touch. Most human knowledge is obtained through the eyes and ears (Sunaryo, 2004). Factors that can affect knowledge are the level of education,information,culture,experience and socioeconomic. Knowledge can be obtained in a modern way (scientific and accountable) and a traditional way (trial and error).knowledge can be measured by means of interviews or questionnaires stating the content of the material to be measured from the research subject or respondent. The level of knowledge can be measured based on good (76%-100%), sufficient (56-75%), and less (<56%) (Notoatmodjo, 2010).

An attitude is a form of evaluation/reaction to an object, taking sides/impartiality which is a certain regularity in terms of feelings (affects), thoughts (cognitions), and predispositions to one's actions (conation) towards an aspect in the surrounding environment. (Saifudin A, 2005).

The concept of self-efficacy is the core of the social cognitive theory proposed by Albert Bandura which emphasizes the role of observational learning, social experience, and mutual determinism in personality

development.Self-efficacy is one of the most influential aspects of self-knowledge in human daily life. Self-efficacy is the belief that people are can control the situation and get positive results. Bandura (Santrock, 2007:286) said that self-efficacy has a large effect on behavior.

According to Iverson (2001), skills need basic training and abilities that everyone has been able to help produce something more valuable and more quickly.Skills are the ability to use reason, thoughts, ideas, and creativity to do, change, or make something more meaningful to produce value from the work.In addition, skills can also be interpreted as the ability to translate knowledge into practice so that the desired performance will be created.

In the neighborhoodclosest to us, there are health cadres who should be able to provide first aid in the event of a health problem/accident.Health cadres / Posyandu are usually found throughout the neighborhood. Therefore, we intend to train Posyandu health cadres to provide first aid to health problems in their environment.

Based on that, weare interested to research of the effect of first aid training for health cadres on increasing knowledge, attitudes, self-efficacy, and skills.

II. Methode

The research design used a quasi-experimental, pre-post test with a control group design. Before the treatment, all of groups are doing pre-test (01), and the intervention group was given a training (x) and the control group was given a different type of procedure (o). After the treatment for the intervention group, all of groups are doing a post-test (02).Determination of the hypothesis test is a chiquare. The sampling strategy is used purposive sampling with a sample using the proportion formula in one population (Lemeshow, Holmer, Klar & Lwanga, 2002). The sample in this study amounted to 30 people, and the sampling technique was incidental.

III. Result

In a total of the respondents who became the sample was 60 people. consisting of a control group and an intervention group. In a interventions group was 30 people and the control group was 30 people. Research analysis based on univariate and bivariate analysis procedures.

Unvariate Analysis
a. The Respondent Characterisic

Table 5.1 Distribution of Research Respondents' Characteristics (n=60)

VARIABLE		Intervention		Control		Control	
		Total	%	Total	%	Total	%
Age							
-	< 46 years old	14	46.7	12	40	26	60
-	>46 years old	16	53.3	18	60	24	40
Gender							
-	Male	-	-	2	6.7	2	96.6
-	Female	30	100	28	93.3	58	3.4
Level of education							
-	Basic Education	2	6.7	2	6.7	4	6,66
-	Middle	13	76.7	20	66.7	33	71.74
Education		5	16.7	8	26.7	13	21,6
-	High Education						
Job Status							
-	works	1	3.3	2	6.7	3	5
-	unemployed	29	96.7	28	93.3	57	95
Marital Status							
-	Married	28	93.3	30	100	58	57
-	Sinngle	2	6.7	-	-	2	3

it was concluded that most of the respondents in the intervention group were women, aged over 46 years old, had a middle education level, unemploye, and marital status has married. Meanwhile, in the control group, it can be concluded that most of the them are woman, aged over 46 years old, had a middle education level, are unemployed, and are currentlymarried.

Bivariate Analysis

1.   **Respondent Equality**

Table 5.2. Analysis gender equality and education level among respondent groups

Variable	Intervention		Control		P – value
	N	%	N	%	
Age					**0.602**
- < 46 years old	14	46.7	12	40	
- > 46 years old	16	53.3	18	60	
Gender					**0.472**
- Male	-	-	2	6.7	
- Female	30	100	28	93.3	
Level of education					**0.635**
- Basic Education	2	6.7	2	6.7	
- Middle Education	13	76.7	20	66.7	
- High Education	5	16.7	8	26.7	
Job Status					**1.000**
- Work	1	3.3	2	6.7	
- Unemployed	29	96.7	28	93.3	
Marital status					**0.472**
- Married	28	93.3	30	100	
- Singgle	2	6.7	-	-	

The results of the analysis in table 5.2 showed that are no differences in the gender, education, occupation, and marital status of the respondents between the intervention group and the control group.

2.   **The difference scores in the knowledge, attitudes, self-efficacy, and skills of cadres in first aid training before and after intervention in the intervention and control groups**

Table 5.3 Analysis Score for the knowledge, attitude, self-efficacyand skill of the healthcadresbefore and after first aid training

Variable	Groups	Mean	SD	95% CI	T	P value
Knowledge Scores	Intervention Group		1.608	-1.567 - -0.366	-3.293	**0.003**
	Before	9.23				
	After	10.20				
	Gap	-0.967				
	Control Group		1.285	-0.213 – 0.746	1.137	**0.265**
	Before	10.20				
	After	9.93				
	Gap	0.267				
Attitude Scores	Intervention Group		25.452	-18.704 – 0.304	-1.980	**0.057**
	Before	111.63				
	After	120.83				
	Gap	-9.200				
	Control Group		8.223	-4.104 – 2.037	-0.688	**0.497**
	Before	113.70				
	After	114.73				
	Gap	-1.033				
self-efficacy Score	Intervention Group		21.169	-17.405 - -1.595	-2.458	**0.020**
	Before	105.97				
	After	115.47				
	Gap	-9.500				
	Control Group		4.455	-2.163 – 1.163	-0.615	**0.544**
	Before	108.07				
	After	108.57				
	Gap	-0.500				
Skill Score	Intervention Group		1.270	-1.674 - -0.726	-5.174	**0.000**
	Before	15.97				
	After	17.17				
	Gap	-1.200				
	Control Group		1.202	-0.515 – 0.382	-0.304	**0.763**
	Before	12.70				
	After	12.77				
	Gap	-0.067				

The table above shows the significant differences in scores of first aid training on knowledge, attitudes, self-efficacy, and skills in the intervention group before cand res after first aid training intervention (p-value = 0.003, p = 0.057, p = 0.20, p = 0.000), and the difference in knowledge scores in the intervention group is a bigger

(value difference = 0.967). while in the control group the average difference in scores is 0.267, and the difference in the average value of attitudes in the intervention group is greater (difference value = 9,200) while in the control group the average difference is 1,033, as well as the difference in the average value of self-efficacy scores in the intervention group, is greater (value difference = 9,500) while in the control group the average difference is 0.500, and the difference in the average value of skill scores in the intervention group is greater (value difference = 1,200) while in the control group the average difference is 0.067.

3. **The Difference Score in the knowledge, attitudes, self-efficacy, and skills of cadres in first aid training between groups.**

Table 5.4. Analysis Score for the knowledge, attitude, self-efficacyand skill of the healthcadresin first aid between groups

Variable	Group	N	Mean	SD	95% CI	F	P value
Knowledge	Intervention	30	0.97	1.608	-1.986 - -0.480	0.525	**0.002**
	Control	30	0.27	1.285			
Attitude	Intervention	30	-.20	25.452	-17.942 – 1.609	3.274	**0.103**
	Control	30	-1.03	8.223			
Self-Efficacy	Intervention	30	-.50	21.169	-16.906 - -1.094	8.748	**0.026**
	Control	30	-0.50	4.455			
Skills	Intervention	30	-.20	1.270	-1.772 - -0.494	2.725	**0.001**
	Control	30	-0.07	1.202			

The results of the analysis showed that are differences in scores of knowledge, self-efficacy, and skills for first aid training (p = 0.002; p= 0.026; p= 0.001) between the intervention group and the control group after the first aid training intervention. Meanwhile, the attitude score showed no difference (p=103) between the intervention and control groups after the first aid training intervention.

MULTIVARIATE ANALYSIS
This analysis was conducted to see the independent variables related to the results of first aid training for cadres; level of knowledge, self-efficacy, and skills using the Multiple Logistics Regression test at a significance level of 5% p-value <0.25. The results of the selection of multivariate candidate variables on the three dependent variables, such:

Table 5.5
Multivariate Candidates of the variable selection with the variabledependent :
The Level of knowledge for First Aid Training

NO	VARIABLE	CHISQUARE TEST			
		Good Knowledge	Low Kowledge	OR	P-value
1	Age			6.007	0.014
	< 46 years old	21	5		
	> 46 years old	17	17		
2	Level of education			0.024	0.876
	- Basic Education	2	2		
	- Middle Education	28	15		
	- High Education	8	5		
3	Job Status			1.203	0.273
	- Work	1	2		
	- Unemployed	37	20		
4	Marital status			0.156	0.693
	- Married	37	21		
	- Singgle	1	1		

Table 5.6
Multivariate Candidates of the variable selection with the variabledependent :
Self-Efficacy for the first aid training:

NO	VARIABLE	CHISQUARE TEST			
		Good of Self-Efficacy	Low of Self-Efficacy	OR	P-value
1	Age			0.588	0.455
	< 46 years old	12	14		
	> 46 years old	19	15		
2	Level of education			8.032	0.005
	- Basic Education	4	0		
	- Middle Education	24	19		
	- High Education	3	10		
3	Job Status			3.319	0.268
	- Work	0	3		
	- Unemployed	31	26		
4	Marital status			0.002	0.962
	- Married	30	28		
	- Singgle	1	1		

Table 5.7
Multivariate Candidates of the variable selection with the variabledependent :
Skills for the first aid training:

NO	VARIABLE	CHISQUARE TEST			
		Good Skill	Low Skill	OR	P-value
1	Age			1.086	0.297
	< 46 years old	15	11		
	> 46 years old	15	19		
2	Level of education			1.571	0.290
	- Basic Education	3	1		
	- Middle Education	22	21		
	- High Education	5	8		
3	Job Status			0.345	0.557
	- Work	2	1		
	- Unemployed	29	30		
4	Marital status			0.000	1.000
	- Married	29	29		
	- Singgle	1	1		

Based on the three tables above, it can be concluded that age has a significant relationship with self-efficacy on first aid training.

IV. Discussion

The results from the equality analysis of characteristics showed that there were no differences in the sex, education, occupation, and marital status of the respondents between the intervention group and the control group. The characteristics showed that the intervention and control respondents, do not influence each other because the conditions for both of the respondents are relatively homogeneous.

The results from independent analysis showed that there were differences in knowledge, self-efficacy, and skills scores ($p = 0.002$; $p = 0.026$; $p = 0.001$) between the intervention group and the control group after the first aid training intervention. Meanwhile, the attitude score showed that is no difference ($p=103$) between the intervention and control groups after the first aid training intervention.According to an opinion from Sunaryo (2004) that knowledge is obtained through the five human senses sight, hearing, smell, touch, and taste.It is also through the training of health cadres that their knowledge will increase even though each individual has a different grasping power.

This is also to the results of Fitriani's research, Dea (2018), which found that there was an effect of first aid health education of accidents on the knowledge level of Nursing Care Emergency members of the Disaster at Muhammadiyah University of Purwokerto.

In terms of self-efficacy, there is also a differencescores between intervention and non-intervention. This statement is the same as Woolfolk (Anwar, 2009: 23) that self-efficacy is a person's assessment of himself or the level of belief about how capable he is to perform a certain task to achieve certain results.

The results from the research showed thatHealth cadres who had intervention felt confident in their ability to help with accidents with $p=0.026$.

Seen from the skills aspect a score is obtained with $p =0.001$, statistically means that the intervention has a significant effect on the health cadres' skills.

According to an opinion from Iverson (2001) "a skills need training and basic skills that everyone has to help them produce something more valuable faster". This result of the research same as with Nafsiyah's research (2018), state that a difference significant of student skills after getting health educationwith Stimulation role playingmethode.

Regarding the attitude aspect, there were no different scores between intervention and non-intervention. In theory, the attitudes should have been formed at 5 years old and are formed through the family.

This result has the opposite with Utari, A.W (2010) research, she stated that there was an effect of counseling of health cadres on changes in attitudes for handling clean water in Dusun Kriyan.

MULTIVARIAT ANALYSIS

This research showed that , Age has a significant effect on first aid knowledge, and then the cadres education has a significant effect on first aid self-efficacy.In theory, the older you are, the more mature a person will be in thinking and working. This also affects a person's cognitive.

This result accordance with the Suwaryo, P.A.W. (2017) LogisticRegresi test on his research is "affecting factor on the level of public knowledge about mitigation disaster" It was found that the most influential on increasing knowledge was the age factor.

The level of education is significantly affecting on self-efficacy .According to Carter (2011), that The higher a person's education level, the easier it is to receive information so that the more experience they have. Education is an important factor in daily life. if someone has a high abilityso they will affect the level of self-efficacy

V. Conclusion

1. The Result of this research in all health cadres, it was found that 97% is a woman with married status,a housewife, over 46 years old and most of their education at the middle level.

2. The Result of this researchshowed that there were significant differences in knowledge, attitudes, self-efficacy, and skills scores in the intervention group before and after the first aid training intervention. With high difference in scores when compared with no intervention.

3. Test results of differences in knowledge, attitudes, self-efficacy, and skills first aid training scores showed that the difference in knowledge scores, self-efficacy, and skills in first aid training ($p = 0.002$; $p= 0.026$; $p= 0.001$) between the intervention group and the control group after the first aid training intervention. Meanwhile, the attitude score showed no difference ($p=103$) between the intervention and control groups after the first aid training intervention.

4.	The results of the logistic regression analysis show that the age of the respondent is very influential on the level of first aid knowledge and the level of education has a significant effect on self-efficacy in carrying out first aid actions.

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