THE LEVINE CONSERVATION MODEL AND SOCIAL SUPPORT COULD ENHANCE THE CAPABILITIES OF POSTPARTUM MOTHERS IN DISASTER PROBLEMS AREAS

Kamsatun[1)], Susi Kusniasih[2)]
[1, 2)] Bandung Nursing Department, Politeknik Kesehatan Kemenkes Bandung
Kamsatun70@gmail.com

Abstract, Background: Efforts to reduce the risk of the impact of disasters are efforts that are considered to be still underappreciated (Ministry of Health, 2013). Vulnerable groups, such as postpartum mothers and their babies, are groups at risk for health problems in disaster conditions. The loss of family support during pregnancy and breastfeeding can be stressful for both mother and baby. Weak physical conditions due to weak postpartum conditions as well as the impact of disasters and high anxiety can lead to a lack of health care for both mother and baby which can cause stress to the mother, declining health, poorly cared for babies, not getting breast milk. The decline in the ability to care for mothers and babies will increase morbidity, which in turn can increase maternal and infant mortality. Ignorance of the problems that occur and delays in making decisions can have a fatal impact. Limited health personnel require the involvement of health cadres as social support and community empowerment so that the public can recognize as early as possible the risks, danger signs of postpartum mothers and their babies, so that they can help prevent complications. Levine Conservation Model and social support for families, cadres, health workers for postpartum mothers in disaster situations were developed and used to increase the ability to reduce the impact of disasters in the context of reducing disaster risk on postpartum mothers. Postpartum mother and family assistance using Levine Conservation and social support models.
Method: This type of research is a quasi-experimental with a pre-post-test two group design. The population is postpartum mothers in the work area of the Kutawaringin Health Center, Bandung Regency. The number of samples in each group is 30 people. The sampling technique is purposive sampling technique. Pre-test was conducted to determine knowledge and attitudes, using a questionnaire, while the mother's skills used observation. The post test was carried out in the same way, after the intervention was given to both the treatment group and the control group. In the control group, only the module was given.
Differences in knowledge, attitudes and skills pre and post-test in the treatment group and the control group used the dependent T test.
Result: The results showed that there was an effect of the Conservation and social support model on the ability of postpartum mothers in disaster-prone areas.

Keywords: postpartum mothers, Levine Conservation Model and social support

Background

Community preparedness needs to be seen as an important effort in minimizing disaster risk for vulnerable groups (Tedja, 2018). Natural disasters such as earthquakes and floods can cause stress to postpartum mothers. Several studies indicate that the number of mothers who ultimately cannot breastfeed their babies increases when earthquakes and natural disasters occur (Hoesin, Iskandar 2015, Zotti, 2013).

Disasters such as earthquakes, floods can cause worry, anxiety, stress in postpartum

mothers which can increase the hormone cortisol in the amniotic fluid. High cortisol levels in amniotic fluid can interfere with the mother's ability to breastfeed. Research in the United States found that various natural disasters such as earthquakes, blizzards in 2012 caused stress levels for mothers (Dancause, et all, 2011).

Research on the 2005 earthquake in Chile showed that earthquakes experienced up to 6 months before delivery can have a negative impact on pregnancy. No one can predict when a disaster will strike. Therefore, it takes the vigilance of the whole community. The community is required to be ready at any time to carry out disaster relief. Disaster management training is needed by the community to be able to prevent the impact of disasters. Inviting the community to identify all existing capabilities in their readiness to face disasters. The steps taken by the community need to be well organized to deal with disaster situations that will and may occur in their environment. The community is invited to be aware and prepare themselves if a disaster occurs. (Teja, 2018).

Factors that affect postpartum mothers are internal and external factors including economic, socio-cultural factors, social support, access to information, situations to act.

The internal factors of the individual are: mother's characteristics (age, parity, education, occupation, motivation, intention, personal autonomy, knowledge and attitude).

Backett (1984) says that the risk approach begins with the idea that risk measures are a description of the need for intensive, adequate and complete promotive, preventive and treatment services. This need can actually be predicted based on existing problems/risk factors, ie before obstetric complications occur. Based on the description and problems above, researchers are interested in conducting research to develop a Levine Conservation model and social support for postpartum mothers to reduce the impact of disasters on postpartum mothers so that postpartum complications for mothers and babies can be prevented.

Method

This research is Quasi-Experimental research which begins with the research and development method (Research and Development).

The research is quasi-experimental, with control group design. It involved a sample of 60

Ignorance of the problems that occur and delays in making decisions can have a fatal impact. Limited health personnel require the involvement of health cadres as providers of support and community empowerment so that people can recognize as early as possible the risks, danger signs of postpartum mothers, so that they can help prevent complications.

postpartum assigned to the control group and intervention group, respectively

The research steps include:

Stage 1. Exploration Study. Qualitative research design. In-depth interview techniques and focus group discussions on efforts to prevent the risk of disaster impacts on postpartum mothers. This qualitative study was conducted on village officials, cadres, health workers, midwives and nurses, post partum mothers and postpartum mothers' families. Stage 2 Modeling. Based on the results of exploratory studies, a Levine conservation and social support model is needed. Stage 3. Model testing The pre-test was conducted by means of respondents filling out questionnaires to assess knowledge and attitudes, skills to reduce the risk of disaster impacts on postpartum mothers and babies with an observation checklist. This research was conducted in the working area of the Kutawaringin Public Health Center, Bandung Regency, from January to December 2020. The population in this study were postpartum mothers in Gajah Mekar Village, Kutawaringin Community Health Center, Bandung Regency. The sampling technique in this study is purposive sampling.

Result

Qualitative studies were conducted to explore and obtain initial data related to various problems and the required efforts. Problems and efforts were obtained through opinions and input in in-depth interviews and focus group discussions (FGD). Exploration efforts were carried out on village officials, health workers (midwives and Puskesmas nurses), the health promotion team, as well as the families of postpartum mothers and postpartum mothers in earthquake-prone areas. The results of the analysis of the themes obtained from the participants, there are 4 themes. The themes are: 1) Recognize disasters and the impact of disasters on postpartum mothers; 2). Recognize problems that may occur in postpartum mothers and their babies; 3) Conduct disaster preparations to reduce the

impact of disasters on postpartum; 4) Perform nursing interventions on postpartum mothers so that problems can be prevented. Conservation Model and social support were given 2 times. The first and second meetings are 1 week apart. The time required for each meeting is 30 minutes. The number of respondents for the intervention group was 30 respondents.

The following table describes the characteristics and equality of respondents between the intervention group and the control group based on the respondent's age, parity and education.

Table 1. Characteristics of Respondents in the intervention and control groups

No	Variable	Intervention		Control	
		Frequency (%)		Frequency (%)	
1	Age (years)	27,80		27,03	
	Mean	18		19	
	Min	43		41	
	Maks				
2	Parity				
	a. 1	15	50 %	11	36.66 %
	b.>1	15	50 %	19	63,33 %
		30	100	30	100
3	Education				
	Elementary	6	20 %	8	26,67 %
	Junior high	21	70%	22	73,33 %
	Senior high	3	10%	0	0
		30	100	30	100

From the table it is known that the average age of the respondents is 27 years. The education of most respondents is Elementary School. Most of the respondents (65%) already have 1 or more children, some are primigravida.

Tabel 2 Changes in Mean Value of Knowledge, Attitudes and Skills Before and After Model Implementation

Variable	Intervention (n=30)				control (n= 30)			
	Pre	Post	diff	p	Pre	Post	diff	p
knowledge	54,57	65,17	10,6	0,000	52,83	53,20	0,37	0,025
attitude	50,80	64,63	13,83	0,000	50,73	52,03	1,3	0,000
Skill	4,67	6,4	1,73	0,000	4,73	4,77	0,04	0,326

The mean of pre-test knowledge of the intervention group was 54.57 and post-test knowledge was 65.17. It can be seen that the mean difference between pre test and post test is 10.6. The results of statistical tests obtained p value = 0.000, so it can be concluded that there is a significant difference between knowledge before and after the application of the model. So it can be concluded that there is an effect of the application of the model on the knowledge of the respondents, p-value < (0.05) so statistically there is an effect of the application of the levive conservation model and social support on the knowledge of the respondents.

The mean pre-test attitude of the intervention group was 50.80 and the post-test attitude was 64.63. It can be seen that the mean difference between the pre-test and post-test is 13.83. The results of statistical tests obtained p value = 0.000, so it can be concluded that there is a significant difference between attitudes before and after the application of the model, p-value < (0.05) so there is a statistically significant effect of the application of the model on the attitude of the respondents.

The mean of the pre-test skills of the intervention group was 4.67 and the post-test skills were 6.4. It can be seen that the mean

difference between the pre-test and post-test is 1.73. Statistical test results obtained p value = 0.000, it can be concluded that there is a significant difference between skills before and after the application of the model, p-value < (0.05) then statistically there is a significant effect of the model on disaster impact reduction skills.

In both groups, both the intervention and control groups showed no influence. In the intervention group (application of the model) it showed a very significant increase which can be seen in the value of a fairly large difference (significantly) in the intervention group. In the intervention group, it showed an influence on the three aspects of knowledge, attitudes and skills, while in the control group only on aspects of knowledge and attitudes.

Discussion

Based on qualitative research on the problems and efforts made in reducing the impact of disasters, 4 themes were identified which consist of 1) Knowing disasters and the impact of disasters on postpartum mothers; 2). Recognize problems that may occur in postpartum mothers and their babies; 3) Prepare for disaster to reduce the impact of disasters on postpartum; 4) Perform nursing interventions on postpartum mothers so that problems can be prevented Levine's Conservation and Social Support model was developed. This model is a synthesis model based on a qualitative study and integrated with Levine's nursing theory model. The model consists of 4 steps. 1) Recognize disasters and the impact of disasters on postpartum mothers; 2). Recognize problems that may occur in postpartum mothers and their babies; 3) Prepare for disaster to reduce the impact of disasters on postpartum; 4) Perform nursing interventions on postpartum mothers so that problems can be prevented The average ability of respondents (knowledge, attitudes and skills) in the intervention group has increased Levine's Conservation Model has an effect on abilities (knowledge, attitudes and skills) in reducing the impact of disasters on postpartum mothers in disaster-prone areas.

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