



Original Research

The Demonstration and Audiovisual Health Education Package (Demavi) Could Affect the Housewives' Knowledge of First-Aid in Burns

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ABSTRACT

Introduction: Burns is a condition that is experienced by the community that can cause skin damage to the epidermis. This is often experienced by housewives due to their daily life in the kitchen. So that this does not cause serious problems, then housewives need sufficient knowledge. The use of demonstration and audiovisual (Demavi) health education is packaged to increase one's knowledge. The study aims to recognize the impact of the demonstration health education package and audiovisual on the first aid knowledge of the burns on housewives in Bangetayu Wetan

Methods: This type of research is quantitative research. The design used a quasi-experiment with the control group pretest-posttest. The instrument used in this study was a questionnaire with 27 closed-ended questions with multiple choice answer. The number of respondents is 107 which are 54 in treatment group and 53 in control group using the simple random sampling. Data obtained are statistically processed using chi-square test

Results: The result of the statistical test shows significant effects of demonstrations and audiovisual and health education packages on knowledge about first aid burns among housewives with p-value of 0.094.

Conclusion: The demonstration and audiovisual health education packages has an effect on housewives' knowledge of first aid in burns. Other package methods can be developed to make it easier for health workers to do health promotion, and other methods of health promotion package development should be adapted to the theme of the material and the existing audience characteristic.

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INTRODUCTION

Burns are one of the most common conditions in society. A burn is an injury caused by intense heat, such as hot water, fire, radiation, and chemicals. Burns are also caused by a mild frost bite. Burns are one of the most common traumas, ranging from the shock stage to the advanced stage. Burns can have devastating effects and risks resulting from exposure to any cooking fire. One of them is skin damage. Besides skin, burns can also damage muscle tissue, blood vessels, and epidermal tissue. Severe burns can cause the sufferer shock and psychological stress resulting from his or her physical disability (Ahuja *et al.*, 2016).

One way to treat a burn is using first aid, which is the quickest step taken outside a hospital to save a life [2]. However, today, people are still using incorrect methods of applying first aid to burns, such as using toothpaste and oil to treat burns. Besides containing potassium content that could increase skin infections, people also use ice cubes to relieve heat, but these actions could actually stop blood circulation. The successful first treatment of burns requires the public to have extensive knowledge, and, as such, this must reach the community. This is done by using health promotion techniques. Health education in megacities uses effective learning methods and media. The method used for research is demonstration, while the media is audio-visual. This

Table 1. The differences of knowledge before and after the Demavi (n=107)

Variable		Intervention				Control			
		Pre-test		Post-test		Pre-test		Post-test	
		n	%	n	%	n	%	n	%
Knowledge	Sufficient	34	63%	16	29.6%	25	47.2%	20	37.7%
	Adequate	20	37%	38	70.4%	28	52.8%	33	62.3%
	Total	54	100%	54	100%	53	100%	53	100%

Table 2. Statistical result of Demavi effect on housewives' knowledge of first aid in burns (n=107)

Knowledge	Posttest		p- value	Odd ratio	Chi-square test
	Intervention	Control			
Sufficiently	16	20	0.094	0.309	2.801
Adequate	38	33			
Total	54	53			

demonstration method reduces the rate of error and enhances the responder's clarity, as live demonstration methods are performed in front of learners, while audiovisual media is a health education media that uses audio and visual messages [3]. A study by Savitri in the Sidodadi village in the Puring sub-district obtained that in a previously treated group there were seven respondents (35%) in the enough knowledge category and 13 respondents (65%) in inadequate category, then, after being given health education, this became 20 (100%) in adequate category with some 10,000, indicating that there is an increase [4]. A study by Siwi conducted in the village of Garen Padean Ngemplaque Boiali found results prior to health education wherein most respondents had knowledge in the family pre-hospital in correct burn treatment of 50.7%. After medical training, most of those polled with knowledge of the family pre-hospital treatment were in the good category (62.7%) [5]. The preliminary study was carried out on April 16, 2019 in Bangetayu Wetan. Lurah's interview with the cadre mothers in Bangetayu Wetan obtained information that they had been burned while doing housework. Their jobs, while cooking, often result in oil eruptions and then burns from the handle of the pan while lifting the cookware, as well as those taken while ironing. These are a few causes of burns in the home, and good, proper precautions are required. Good precautions can be taken by replacing a pan handle with a stable grip, using a protective pan during cooking and checking the electrical connections before ironing, but most of the housewives in Bangetayu Wetan still use the wrong method to apply first aid to burns. The remedies that some housewives in Bangetayu Wetan have used in treating burns are toothpaste, cooking oil, margarine, and soy sauce. With improper burns and limited knowledge of first aid, promoting and preventive effort is required in the first aid of burns, and, hence, the author is interested in studying "the effect of demonstration and audiovisual education packages on first aid for burns among housewives in Bangetayu Wetan."

MATERIALS AND METHODS

This study was quantitative research, whereby this study reveals causal relationships in a way that involves control group instead of treatment group. The study used the design experiment with control group pretest-posttest. The respondents in this study were mothers - housewives - in Bangetayu Wetan in the 25-59 year old or adult age category. This research was implemented around September to October 2019. The population is 4433 and this study took a sample of 107 by simple random sampling technique. For the group treatment, 54 of the respondents in this group were treated initially with pretests and then treated with Demavi treatment. Demavi itself is a demonstration and an audiovisual, so the group responders for treatment by the researcher showed audiovisual media about first aid for burns, followed by a posttest. On the other hand, the control group, as many as 53 respondents, received a pretest and posttest, but they were not treated by Demavi.

The instrument used in this study was a questionnaire with 27 multiple choice closed-ended questions. The questionnaire used by researchers is valid as all 27 item questions obtained a coefficient more than the r table (0.444), as well as its reliability with a Cronbach's alpha value of 0.959. This research strongly implemented ethical principles of research, including respect for human dignity by ensuring informed consent and confidentiality of respondents' data.

RESULTS

Table 1 explains the results of analysis of differences in knowledge before and after being given the Demavi healthcare package and obtained the posttest group for adequate category treatment while control was inadequate. The treatment group totaled 38 respondents, while control group was as many as 33 respondents. According to the results in Table 1, there is an increase in the number of respondents with adequate knowledge compared to the control group,

which are only 20 to 28 respondents at pretest becoming 33 to 38 respondents at posttest.

According to analysis on Table 2, the impact of the Demavi on first aid knowledge, the results show in the treatment group, which covered a total of 38 respondents while those in the control group had 33 respondents in the adequate category. In addition, in the study, the result was that there was a p value is 0.094, the value of chi-square was 2.801 variability with odds ratio 0.309. The results of this test indicate that the health education package with Demavi has an effect on the knowledge of first aid in burns among housewives.

DISCUSSION

There was a difference between treatment group and control group seen during research. The difference of results could be due to the possibility of deficiencies in human ability at the time of research. For the responders who were given Demavi, the figure is high because this group was given both video imaging and demonstrations using visual aids. Apart from this, the probability of this difference could result because of the environment, etc. This study, moreover, was supported by earlier studies by Nurul Aeni and Sriyuhandini (Aeni and Yuhandini, 2018), where pre-intervention results of 65.17 appear to have risen to 76.50 after intervention. This study also matched up with a previous study by Zakaria et al. [7], about the effect of health education with audiovisual media on the knowledge that 15.8 can produce. Kapti (Kapti, Rustina and Widyatuti, no date) said that audiovisual media is an effective medium for improving one's knowledge, and that it cannot only be used to stimulate an active emancipation of knowledge. Audiovisual media is a healthcare medium which can encourage one's attraction and increase one's motivation for receiving messages, stimulate high curiosity and can improve future behavior and patterns of life [9]. Based on previous research, the researchers assume that the health education package that combines media with methods in health education is different. This would be viewed in the category of respondent's knowledge.

The study shows the effect of Demavi on housewives' knowledge of first aid in burns. The use of health education is one way to increase knowledge. One gains knowledge through several senses, including 83% vision, 11% hearing, 1% taste and 2% touch [3]. Health education can be done using demonstration methods and audiovisual media. The demonstration method has the benefit that it can stimulate one's active understanding, whereas audiovisual media relies on hearing and sight [10]. Previous research also proves there is an influence of various health education methods on knowledge in the treatment of burns, including audiovisual media, demonstration methods and leaflets (Lestari, Amelia and Rahmalia, 2012; Savitri, 2017; Sari et al., 2018).

Based on existing studies, theories and previous studies, have assumed that a health education

package consisting of demonstration methods and audiovisual media has benefits that can affect one's knowledge, because one's knowledge will increase through both hearing and sight. It can be achieved when using the media for media and health education methods. It is proven by the study that health education that combines the media with these methods can affect individual's knowledge.

CONCLUSION

The demonstration and audiovisual health education package (Demavi) has an effect on the housewives' knowledge of first-aid in burns in Bangetayu Wetan District, Semarang, Central Java Province, Indonesia. This Demavi package can be taught to cadres because this health education package is simple, so that it can be easily learned and health cadres, as an extension of the government, can teach it to the wider community. Other methods can be developed based on the topics and the audience characteristics for the delivery of a health education. Thus, it could enhance the quality of health promotion in society.

CONFLICT OF INTEREST

The author states that in this study there were no conflicts of interest.

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