



**INFLUENCE OF MODIFICATION OF CAMPAIGN METHOD TO SELF EFFICACY OF
CADRES IN PROVIDING INFORMATION ON PRE-HOSPITAL ACUTE ISCHEMIC
STROKE EARLY DETECTION IN PAKIS VILLAGE, SURABAYA CITY**

Iriene Kusuma Wardhani*¹, Tita Hariyanti², Dewi Kartikawati Ningsih³

¹Graduate Program of Nursing, Medical Faculty, Brawijaya University.

²Graduate Program of Hospital Management, Medical Faculty, Brawijaya University.

³Undergraduate Program of Nursing, Medical Faculty, Brawijaya University.

Received date: 13 July 2018

Revised date: 03 August 2018

Accepted date: 24 August 2018

Corresponding author: Iriene Kusuma Wardhani

Graduate Program of Nursing, Medical Faculty, Brawijaya University.

ABSTRACT

Modified campaign method gives effect to the improvement of attitude and behavior in preventing the occurrence of health problem because of individual awareness influenced by feeling, mindset, behavior, and habit. Increased self efficacy of cadres in providing information about early detection of ischemic stroke is an attempt to involve the community in the handling of pre-hospital stroke. The purpose of this research is to analyze the influence of modified campaign method to self efficacy of cadre in giving information about pre-hospital early detection of acute ischemic stroke. This research uses quasi-experiment design with non equivalent control group design. The treatment group consisted of 15 cadres who received an intervention on early detection of acute ischemic stroke with modified campaign method, control group was given stickers on early detection of acute ischemic stroke. Data analysis was performed by using Wilcoxon Signd Rank Test and Mann Whitney U Test to see the effect of modified campaign method on self efficacy of cadres. The results showed that there was an increase of self efficacy in cadre in Pakis Village, Surabaya City after getting intervention modified campaign method about early detection of acute ischemic stroke ($p = 0,010$). It can be concluded that modified campaign method of early detection of acute ischemic stroke may increase cadres' self efficacy.

KEYWORDS: Modified campaign method, early detection of ischemic stroke, self efficacy.

INTRODUCTION

Stroke ranks third as the leading cause of death after coronary heart disease and cancer in developing countries which also accounts for 85.5% of total deaths from stroke worldwide. Two thirds of people with stroke occur in developing countries. (WHO, 2006). Stroke has been the leading cause of death in almost all hospitals in Indonesia. According to Budijanto (2015) based on data from the Health Research and Development Board stated that 17.7% of deaths caused by stroke. The current phenomenon is that mortality from stroke is more common in homes than in hospitals, which is 19.3% (24,745 people). According to Basic Health Research data of 2013, stroke prevalence in Indonesia increased by 8.3% 12.1 compared to 2007.

The awareness of early stroke symptoms has an important role in improving the success of pre-hospital stroke management, which aims to reduce morbidity,

mortality and disability rates in stroke patients (Jones et al, 2010). The lack of recognition of the early symptoms of acute stroke causes delays in seeking medical care and loss of opportunity to get timely treatment. Public knowledge and health care workers about signs and symptoms of stroke is the beginning of successful stroke management (Rivera, Jimenez and Zenteno, 2009).

Increasing public knowledge by providing kesehatan information is an effort to make changes in health behavior through education or health promotion because the behavior of a person or society about health is also influenced by knowledge, attitude, belief, tradition (Notoadmodjo, 2010). Providing health education to ordinary people using mass media proved to increase the knowledge and awareness of patients about the warning of symptoms of stroke so as to increase the initial arrival of patients to the emergency department for immediate action (Fogle et al., 2007).

Health education methods should be tailored to the target characteristics of the activity (Notoatmodjo, 2007). Participatory methods that are needed to invite the public to participate in promotive preventive measures are triggers (Prasetya and Kurniati, 2014). The trigger method is used to encourage people to be encouraged to change behavior (Hasan MN, 2017). It also encourages a change of behavior on one's own consciousness by touching the feelings, mindsets, behaviors, and habits of the triggered person. The person who has been triggered will move spontaneously and declare a willingness to change his behavior (Permenkes No. 3, 2014) Efforts to involve the community in health development by involving cadres (Efendi and Makhfudli, 2013). Health volunteers are the right target in the implementation of community empowerment efforts because they are considered as the first reference point of health services (Trisnawati and Rahayuningsih, 2008).

According to data released by the public health care of Pakis Surabaya, there were 153 people suffered from stroke in Pakis Village during the preliminary study including a 17 year old patient, 17 patients aged 30 - 50 years, and 135 patients aged 51 - 76 years. A nurse of *Puskesmas* Pakis explained that 50% of patients were brought to the *puskesmas* immediately after symptoms occurred, but the other 50% waited for 1-2 days after symptoms occurred before they finally visit the health center. This behavior occurred due to the lack of information regarding early signs of acute stroke. Another factor that could be a possible cause is the fact that *puskesmas* never administered any training about stroke to health cadres who have the ability to disseminate any current health information.

MATERIALS AND METHODS

This research employed a quasi-experiment design using non-equivalent control group design. The research was administered in RW 3 Village Pakis, Surabaya City from the 5th of April to May 3th, 2018. The population of this research included all health cadres in Pakis Village, Surabaya. There were 30 cadres selected from RW 03 as the samples of this research using the purposive sampling technique, including cadres for elderlies and cadres for toddlers who fulfilled the inclusion criteria. The treatment group and the control group consisted of 15 cadres each.

Primary data were directly obtained from the field using questionnaires to measure the variables before and after intervention. Intervention was given to the treatment group by implementing the modified method for the campaign of early detection of acute ischemic stroke. A set of questionnaire was distributed to both groups to measure the initial knowledge of the cadres. Then, a modified campaign method was implemented related to early detection of acute ischemic stroke in the treatment group. After the intervention was completed, a post test was administered to re-measure the variable. The control

group was stickers related to early detection of acute ischemic stroke and post test was then administered four weeks after to see the increases in the knowledge of the cadres. To analyze the effect of the modified campaign method in the treatment group, Wilcoxon Signed Rank Test was administered, while the Mann Whitney U Test analysis was administered to measure the improvement in both groups.

RESULTS

Table 1: Respondents' Characteristics in RW 3, Pakis Village, Surabaya.

Characteristics	Number	Percentage
1. Sex		
a. Female	30	100.0
b. Male	0	0
2. Age		
a. 31 – 40 years old	1	3.3
b. 41 – 50 years old	14	46.7
c. 51 – 60 years old	15	50.0
3. Educational Background		
a. Primary School	1	3.3
b. Secondary School	7	23.3
c. High School	19	63.3
d. Higher Education	3	10.0
4. Occupation		
a. Housewife	25	83.3
b. Private Sector	3	10.0
c. Business	2	6.7
5. Years of Service		
a. 4 years	1	3.3
b. 6 years	8	26.7
c. 7 years	19	63.3
d. 15 years	1	3.3
e. 20 years	1	3.3

Source: Primary Data (2018).

Table 1 shows that all of respondents (100%) are female, and the majority of respondents (16.7% or 5 people) are 60 years old, 63.3% of respondents possess SMA / SMEA / SMK (high school) education level. Most of them (83.3%) are housewives (*IRT*) and 8 people cadres (26.7%) have an 8-year of service.

The Self Efficacy of the Treatment Group

Table 2: The Result of Analysis on the self efficacy of the Treatment Group.

Self efficacy of the Cadres	Right after the treatment p = 0,035		4 weeks after the treatment p = 0,010	
	n	%	n	%
Poor	1	6,7	0	0
Fair	7	46,7	7	46,7
Good	7	46,7	8	53,3

Source: Primary Data (2018).

Table 2 shows the results of self efficacy analysis using the Wilcoxon Signed Rank Test on the treatment group cadres. The test result on self efficacy of cadre shows p value <0,05 with p value at test shortly after treatment is 0,035 and p value 4 weeks after treatment = 0,010. This

shows that at all stages there is a meaningful change. The results of the analysis test in Table 2 showed a significant increase in self efficacy in the cadre about the early detection of symptoms of acute ischemic stroke after treatment of modified campaign method.

The Comparison between the Results Obtained by the Treatment Group and the Control Group.

Table 3. The Analysis on the Self efficacy of the Treatment Group and Control Group.

Self efficacy of the Cadres		Right after the treatment p = 0.264		4 weeks after the treatment p = 0.034	
		n	%	n	%
Treatment Group	Poor	0	0	0	0
	Fair	8	53,3	9	60,0
	Good	7	46,7	6	40,0
Control Group	Poor	0	0	0	0
	Fair	11	73,3	14	93,3
	Good	4	26,7	1	6,7

Source: Primary Data (2018)

Table 3 shows the results of self efficacy comparison analysis in the treatment group and control group using the Mann Whitney test. Result of self efficacy test show p value at the moment after treatment is 0,264 and 4 weeks after treatment got value p = 0,034. It can be concluded that the value of p <0.05 which means Ho is rejected. This value indicates that there are significant differences in self efficacy before treatment of modified campaign method and 4 weeks after treatment of modified campaign method on the early detection of acute ischemic stroke symptoms in the treatment and control group. There were 4 (26.7%) cadres of self efficacy both in evaluation shortly after treatment and 1 (6.7%) in evaluation 4 weeks after treatment in control group. In the treatment group, 7 (46.7%) self efficacy cadres were evaluated shortly after treatment and 6 (40.0%) in evaluation 4 weeks after treatment. These data show that there is a significant difference in cadres with good self efficacy between the treatment group and the control group 4 weeks after treatment

DISCUSSION

Cadres' Self Efficacy Before and After the Treatment Using a Modified Campaign Method

In the research results can be seen that there are significant differences in self efficacy respondents shortly after getting treatment modified campaign method and 4 weeks after the treatment of modified campaign method. Increased self efficacy in this study is

the output of the learning process that is influenced by inputs and processes. Learning process is the mechanism of change in ability within the subject. In this process there is an interaction between subjects, facilitators, selected learning methods, aids and learning materials. There are several factors that can influence the success of the subjects in following the learning process, among others: intelligence, capture, memory, motivation (Notoatmodjo, 2007). It is also present in the process of discussion in the treatment of modified campaign method, it appears there are very active cadres, able to explore the case scenarios obtained by the group.

The results of this study are in line with Pudjaningrum, Wahyuningsih and Darundiati (2016) studies which suggest that campaign method increase knowledge, attitudes and practices / behaviors significantly. The campaign method is a participatory method of engaging community empowerment by engaging communities in preventive promotive (Satyani, 2012). In this study the method of group discussion is used as one of the steps in the modified campaign method of early detection of acute ischemic stroke. Notoatmodjo (2007) also stated that adult education can be effective if the materials and methods are used accordingly, one suitable method for adult learning is group discussion. In addition, the increase in self-confidence that occurs can also be influenced by the level of education, respondents in the treatment group in this study the majority (63.3%) high school educated / equal.

The Comparison between the Self Efficacy of the Treatment Group and the Control Group

Based on statistical test on self efficacy variable by using Mann Whitney U Test to see the difference of self confidence variable in treatment group and control group, it was found that there was no significant effect of modified campaign method about early detection of stroke symptom on health cadre at stage immediately after treatment. At 4 weeks after treatment the results were very different. The result of statistical test at 4 weeks after treatment was found to have significant effect of modified campaign method of early detection of symptoms of acute ischemic stroke in the treatment group.

Data on control group self efficacy variable for post test moment and 4 weeks after treatment of sticker got majority of respondents have fair self efficacy and only a small part have good self efficacy. In the treatment group obtained data of some respondents have fair self efficacy and some respondents have self efficacy good at post test moment and 4 weeks after giving modified campaign method of early detection of symptoms of acute ischemic stroke.

Based above description shows that the modified campaign method on early detection of acute ischemic stroke has a significant influence on self efficacy of health cadres in RW 3 of Pakis Surabaya Village in providing information to the public Training is a process of teaching and learning of certain knowledge and skills and attitudes so that participants are more skilled and able to carry out their responsibilities better, in accordance with standards (Tanjung, 2003). Self Efficacy Theory states that the process of change occurs through a sense of self efficacy or self control of a task. This includes a person's belief in carrying out an action that needs to be accomplished albeit with a changing task (Shinnick, 2014). Good self-esteem needs to be possessed by a cadre in performing its duties and roles.

Another thing that allegedly contributed to the increase in self efficacy of cadres in the treatment group was the method of discussion used during the intervention. During the first discussion process a cadre appeared representing his group by presenting the case scenario obtained by telling the story according to the version of each group then reading out the answers from the group for the questions that have been given. In the second discussion process or collective agreement, the facilitator helps the respondent to summarize the important points found in each case scenario. In this session respondents are very enthusiastic and dare to express their opinions about the symptoms, causes, risk factors and treatment of acute ischemic stroke. The storytelling technique gives you the opportunity to use your own ideas and bring your own experience into conversation topics. Many learning methods are related to daily experience, story telling techniques can be used as a brainstorming strategy to trigger learners' activeness in the learning process (Unin

and Bearing, 2015). This learning method can be applied to health cadres to increase their self efficacy and ability in providing health information.

Cadres are the right target in the implementation of health programs because they are considered as the first reference point of health services. This cadre is an extension of the puskesmas or the health office to the community in its working area. Cadre is considered as a reference in handling various health problems (Trisnawati, 2008). With the establishment of health cadres, health services that have been done by health workers alone can be assisted by the community. Society is not only an object of development but also a development partner. with the presence of cadres then the messages delivered can be received perfectly (Effendi & Makhfludi, 2013)

CONCLUSION

There is an increase in self efficacy in cadres RW 3 Village Pakis Surabaya in conveying information about the early detection of symptoms of acute ischemic stroke 4 weeks after treatment.

Research Limitations

Several limitations in this research led to the possibility of research biases including; the inability of the researchers to have total control over the respondents as the information about respondents' knowledge of early detection of acute ischemic stroke was obtained through social media and smartphone. This data collection technique might negatively influenced respondents' concentration and confidence in answering the questionnaires that eventually influenced the measurement and data analysis as well.

ACKNOWLEDGEMENTS

Our thanks to

- Mr. Hadi as the Head of RW 3, Mrs. Ramiyati, Mrs. Rianti, Mrs. Yudi, Mrs. Lilin, Mrs. Kandar and all the health cadres in RW 3 Pakis Village, Surabaya who supported and participated in this research.
- Mrs. *Lurah* and the staffs of Pakis Village, Surabaya who gave the permission for the researchers to conduct this research.
- Mrs. Nisa (a nurse of Pakis Public Health Care) who helped the researchers during the preliminary study and provided necessary information related to the topic of this research.
- Mr. Achmad Effendi, S. Si, M. Si, Ph. D whose direction, suggestion and information were significantly valuable for the statistical data analysis of this research.

REFERENCES

1. Budijanto D. Hipertensi. The Silent Killer. <http://www.pusdatin.kemkes.go.id/article/view/15080300001/hipertensi-the-silent-killer.html>. diakses pada 9 okt, 2017; 19.55.
2. Departemen Kesehatan RI. *Riset Kesehatan Dasar*. Jakarta, 2013.
3. Efendi F, Makhfudli. *Keperawatan Kesehatan Komunitas: Teori dan Praktik dalam Keperawatan*. Jakarta: Salemba Medika, 2013.
4. Fogle CC, Oser CS, Troutman TP, et al. Public Stroke. Education Strategies to Increase Awareness of Stroke Warning Signs and the Need to Call 911. *Journal of Public Health Management and Practice*, 2008; 14(3): e17-e22.
5. Hasan MN. Pemicuan. *Indonesia Infrastructure Initiative*. Direktorat Cipta Karya. Diakses: 27 Oktober pukul 06.38 WIB, 2017.
6. Jones SP, Jenkinson AJ, Leathley MJ, and Watkins CL. Stroke Knowledge and Awareness: An Integrative Review of the Evidence. *Age and Ageing*, 2010; 39(1): 11-22.
7. Kemenkes RI. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 3 Tahun Tentang Sanitasi Total Berbasis Masyarakat*. Republik Indonesia, 2014.
8. Notoatmojo, *Promosi Kesehatan dan Ilmu Perilaku*. Jakarta: Rineka Cipta, 2007.
9. Notoatmojo, *Promosi Kesehatan Teori dan Aplikasi*. Jakarta: Rineka Cipta, 2010.
10. Prasetya, W.A., Desak Putu Yuli Kurniati, D.Y.K. 2014. Pengaruh Pemicuan Masalah Demam Berdarah Berbasis Masyarakat Terhadap Pengetahuan, Sikap, Dan Perilaku Pencegahan DBD Pada Kader PKK Di Kelurahan Sesetan Tahun. *Community Health*, 2013; 2(1): 63 – 73.
11. Pudjaningrum, Wahyuningsih NE, Darundiati YH. Pengaruh Metode Pemicuan Terhadap Perubahan Perilaku Buang Air Besar Sembarangan Pada Masyarakat Kelurahan Kauman Kidul Kota Salatiga. *Jurnal Kesehatan Masyarakat (e-Journal)*, 2016; 4(5).
12. Rivera FG, Jimenez EG, Zenteno, MA. Knowledge of Ischemic Stroke among a Mexico City Population. *Journal of Stroke and Cerebrovascular Diseases*, 2009; 18(3): 208-213. doi:10.1016/j.jstrokecerebrovasdis.2008.10.002.
13. Satyani HA, Dwipayanti NMU. Analisis Kepuasan Masyarakat Terhadap Program Sanitasi Total Berbasis Masyarakat Di Dusun Muntigunung, Desa Tianyar Barat, Kecamatan Kubu, Kabupaten Karangasem Tahun 2012. *Community Health*, 2013; 1(2): 90 – 98.
14. Shinnick MA., Woo MA. Does nursing student self-efficacy correlate with knowledge when using human patient simulation? *Clinical Simulation in Nursing*, 2014; 10(2): e71-e79. <http://dx.doi.org/10.1016/j.ecns.2013.07.006>.
15. Tanjung H. *Manajemen Motivasi*. Jakarta: Gramedia Widia Sarana Indonesia, 2003.
16. Trisnawati AG, Rahayuningsih FB. Pelatihan Peningkatan Kemampuan Kader Kesehatan Dalam Penanganan Tuberkulosis (TBC) Di Wilayah Kerja Puskesmas Gemolong II Sragen. *WARTA*, 2008; 11(2): 150 – 158.
17. Unin N, Bearing P. Brainstorming as a Way to Approach Student-Centered Learning in the ESL Classroom. *Procedia - Social and Behavioral Sciences*, 2016; 224.
18. World Health Organization WHO STEPS Stroke Manual: The WHO STEP Wise Approach to Stroke Surveillance. Geneva: World Health Organization, 2006.