



DOI:

10.22301/IJHMCR.2236-2244.2140

Article can be accessed online on:

<http://www.ijhmcr.com>

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL
OF HEALTH MEDICINE AND
CURRENT RESEARCH

EFFECT OF RW SIAGA TRAINING PROGRAM TO COMMUNITY'S KNOWLEDGE AND ATTITUDE IN DETECTING OBSTETRIC COMPLICATION RISK ON PREGNANT WOMEN IN BANDUNG CITY

Marjani Khoirunnisa, SST., M.Keb¹

¹ Poltekkes TNI AU Ciumbuleuit Bandung, MKhoirunnisa@gmail.com

ARTICLE INFO

Article History:

Received 15th June, 2023

Received in revised form

20th July, 2023

Accepted 25th July, 2023

Published online 31th July, 2023

Keywords

RW, SIAGA, knowledge, attitude, community

*Correspondence to Author:

Marjani Khoirunnisa, SST., M.Keb
Lecturer Midwifery Study Program
Poltekkes TNI AU Ciumbuleuit
Bandung

Copyright © 2023, Marjani Khoirunnisa, SST., M.Keb. This is an open-access article distributed under the creative commons attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the

ABSTRACT

Background: A low awareness of detecting obstetric complication risk in pregnant women, was still become a main factor for a delay in receiving health treatment that affected high maternal and infant morbidity even its mortality rate. **Objective:** The aim of this research was to analyze the influences of the RW SIAGA training program on the community's knowledge and attitude in detecting obstetric complication risk in pregnant women in Bandung City. **Method Research:** It was a quasi-experimental research with a pre-post-test control group design, applied to 105 community members who fulfilled the inclusion criteria, and randomly allocated into intervention and control groups. Data collection for this research was obtained through questionnaires and analyzed by Mann-Whitney and t-test. **Research Results:** Study findings showed that the median of the community's score of knowledge who participated in the training program group was higher than non participated group (90 vs 75; $p < 0.001$). The mean of the community's score of attitude who participated in the training program group was also higher than non-participated group (79.8 vs 73.5; $p < 0.001$). The increase of knowledge and attitude of community who participated in training program was higher than non participated group (20% vs 0%; (RR IK 95%: 3.93 (2,00-7,71)); $p < 0.001$); (6,25% vs 0,43% ; (RR IK 95%: 17,5 (2,50-122,5)); ($P < 0.001$). **Conclusion:** The study concludes that the RW SIAGA Training Program has an influence on the increase of the community's knowledge and attitude in detecting obstetric complication risk in pregnant women.

Citation: Marjani Khoirunnisa, SST., M.Keb "Midwifery Study Program", *International Journal of Health Medicine and Current Research*, 8, (01), 2236-2244

PRELIMINARY

The ability to provide a qualified and comprehensive midwifery service of a country, is shown in its maternal and perinatal mortality rate. Among 5 million birth each year in Indonesia, 20.000 women die due to complications in pregnancy or in birth.¹⁻³

Many efforts had been conducted by the government of Indonesia to overcome this problem, one of which was to develop a policy and strategy for healthcare officers, as well as the efforts to improve community involvement in this program. This strategy was strongly relevant to the latest literature reference which showed that the final factors contributing to maternal mortality were community predisposing factors; health services and the direct involvement of the government and each component in the community. Community involvement holds a very important role in overcoming the maternal mortality problem because there is a complex relationship between the medical factor and non-medical factor which contributed to the increase of maternal mortality rate, especially in developing countries.⁴⁻⁶

Based on Cochrane literature review, health intervention that involving community participation showed a significant results to some of indicators maternal and the child health. There were a decrease for maternal morbidity (RR 0,75; 95% CI 0.61 -0.92, 4 literatures) ; perinatal mortality rate (RR 0,76; 95% CI 0.68 - 0.84, 12 literatures). This also positively contributed to the increase of referral rate of complication in pregnancy to the health facility as much as 40% (RR 1.40%; 95% CI 0.19 – 1.65, 2 literatures).⁷

Based on several literature searching, some of the factors affected the effectiveness of community involvement in overcoming maternal and perinatal morbidity and mortality,

was a low level of knowledge and attitude towards the dangerous signs of maternal and child. This also affected the low rate of detection and community awareness to do the referral as soon as possible when the complication found.⁴⁻⁷

Changing levels of knowledge happened as a result of learning process. In relation to detecting complication in maternal and perinatal, it needs more than a good level of knowledge, but also a positive attitude which can affect community's awareness to give an early action when the complication found. It needs a comprehensive learning method to gain that results, which can affect a positive changes in their level of knowledge, as well as their attitude.

It believed that, training, which one of learning methods, could facilitate the changing process of knowledge and attitude. A participative and interactive method used in a training, would affect not only at cognitive level of its participants, but also their affection aspect, to gained a better result which is a supportive behavior.⁸

Several programs which community participation embedded within, had been conducted in Indonesia One of those programs is SIAGA. SIAGA stands for (Siap; Antar; Jaga). This SIAGA program originated from GSI (safe motherhood action). GSI program was one of government's efforts to involving community participation to decrease the maternal mortality trough several actions, such as: a) improving community's awareness about danger signs in pregnancy and birth b) motivating pregnant women to do the antenatal examination in health

Service center and c) forming a group in the community to organize and assure the availability of transportation tools/vehicles, blood donor volunteers, and financial support for emergency cases in pregnancy and birth. The concept and terms of SIAGA were

expanded and legalized as a national program by the Ministry of Health of Indonesia by letter no. 564/Menkes/SK/VIII/2006 which describes more comprehensive concepts and a wider aspect of health in the community with maternal and child health as it's one of the main programs.⁹

RW SIAGA was a 'breakthrough' action for accelerating to decrease of maternal and perinatal mortality through increasing the community's access to health service and improving its quality, as well as building a community potency awareness, ability, and care in preparing and taking action for saving the mother and child.

Bandung city located in West Java province and populated by 2.393.633 citizens who spreaded in 30 different district, with one community health center in every district. Based on recapitulated data on 2012 released by health department of Bandung City, showed that rate of community detection of obstetric complication only as much as 4,36% from 10.131 high risk pregnant woman. Garuda community health center was one of community health centres in Bandung city located in Andir district with the second largest population in Bandung. This community health center hold 4 sub- district with none of it had formed as RW Siaga in it's whole area.¹⁰

Based on pre- preliminary survey conducted in the Garuda community health center area, resulted that most of the community leaders, as well as its member, didn't know about dangerous signs in pregnancy yet hardly ever heard about the importance of the community's role in getting involved in detecting and taking action in it.

Data presented above, showed the low level of community participation in Bandung, resulting in its maternal/perinatal mortality and

morbidity rate which should be soon to be overcome. Training programs and forming RW Siaga in Bandung City, are expected to be one of the local government's efforts to re-promote the involvement of the community in order to improve their awareness and increase the level of quality of their health.

METHOD

The design of this research was a non-equivalent pre-post test control group design. Variables evaluated in this research was RW Siaga training program as an independent variable and community's knowledge and attitude and detecting obstetric complication risks as a dependent variable. While , gender, age, education, working status, occupation and economy factor contributed as a confounding factors.

Subject of this research was a community member who participated in RW Siaga training program in Bandung City and fulfilled the research criterias, and willing to be a respondents after approving the informed consent. Samples determined by simple random technique.

Questionnaire about community's knowledge of danger sign in pregnancy, used to obtain knowledge data in this research. This questionnaire consists of 20 item questions. Score obtained through this questionnaire transformed into percentage scale and divided into 3 categories (good (76%-100%), Fair (56%-75%), and poor ($\leq$ 55%). This questionnaire was defined valid and reliable based on it's usage in

Previous study which conducted in South Cimahi community health center.¹¹ As for attitude data, obtained by attitude questionnaire that consisted of 28 statements to evaluate community leader's attitude towards danger signs for evaluating SIAGA campaign which adopted from Center for Communication Programs (CCP) | JHPIEGO.¹²

The data collection process conducted through a set of procedures, such as preparation process (internally: checking modules/questionnaires, consolidation for all providers; externally: informed consent to all community leaders, community members who involved in this process); pre- training evaluation; provision

Data analyzed by chi-square test for analyzing the homogeneity of respondent's characteristic. Mann-Whitney test used to analyzed the difference score of knowledge in experiment and control group. A t-test used to measure the effect to RW Siaga training to community's knowledge and attitude in detecting obstetric complication risk in pregnant woman, data was analyzed by measuring the RR value.

RESULT

Based on result of analysis, showed that subject's characteristic of gender, age, education, economy, working status and occupation between the two groups showed no significant difference ($p > 0,05$). Thereby, the both

training material; community self-survey; community discussion; post-training test.

Potential ethical issues in this research already discussed and approved by Ethical Committee on Health Research Medical Faculty Universitas Padjajaran (317/UN6.C2.1.2/KEPK/PN/2013). groups is comparable. Socio demographic characteristic analysis of research subject of both groups presented in Table 1

Based on result of analysis, there were significant difference of knowledge and attitude score for both groups in pre training test ($p > 0.05$). On the other words, the training and control group were on a same level (homogeneity) before given the intervention (training). In contrary, for post test results, there were a difference score of knowledge and attitude for both groups. Result of this research showed that both score of knowledge and attitude in training groups are higher than control group. ($p < 0.001$).

Table 1 Socio-demographic characteristic of the research subject (training and control)

Characteristic	Categories	Group				P value *)
		Training		Control		
		n = 35		n = 70		
		f	%	f	%	
Gender	- Female	30	85.7	51	72.9	0.218
	- Male	5	14.3	19	27.1	
Education	- High	22	62.9	29	41.4	0.062
	- Basic	13	37.1	41	58.6	
Age	< = 40 years	7	20	26	37.15	0.119
	> 40 years	28	80	44	62.9	
Working Status	- Employment	5	14.3	23	32.9	0.073
	- Unemployment	30	85.7	47	67.1	
Economy Status	- ≥ Rp. 1.538.703	3	8.6	4	5.7	0.684
	- < Rp. 1.538.703	32	91.4	66	94.3	
Occupation	- RT/RW/Cadre	33	94.3	64	91.4	0.873
	- others	2	5.7	6	8.6	

*) Chi-square test

Table 2 Difference score of knowledge and attitude pre and post training

Variable		Groups		P Value
		Training n = 35	Control n = 70	
Knowledge				
- Pre	Median (Range)	75.0 (65-100)	75 (55-95)	0.230*)
- Post	Median (Range)	90 (75-100)	75 (50-93)	<0.001*)
Attitude				
- Pre	Mean (Deviation Standard)	73.8 (5.88)	73.5 (5.64)	0.553**)
-Post	Mean (Deviation Standard)	79.8 (5.06)	73.5 (5.52)	<0.001**)

*) Mann-Whitney test **) Independent t-test

Table 3 The analysis of increased scores of knowledge and attitude for Both Groups

Variabel	Groups		P value*)
	Training (n = 35)	Control (n = 70)	
Increase of knowledge			
Score (%)			<0.001
Median (range)	20 ((-5.26)-46.15)	0 ((-15.38)-9.09)	
Increase of attitude			
Score (%)	6.25 (0-39.9)	0.427 ((-2.78)-9.38)	<0.001
Median (range)			

*) Mann-Whitney test

Based on analysis results, showed scores of an increase in the percentage of training both knowledge and attitude in that there was groups

Table 4 The analysis of the effect of the RW Siaga training program on the knowledge variable

Groups	Knowledge		P value*)
	Decrease	Increase	
Control (n=70)	55	15	<0.001
Training (n=35)	7	28	

*) Chi-square test

Based on table presented above, tend to have an increase of knowledge showed that the subjects of training group 3.93 times higher than control group.

Table 5 The analysis of effect of RW Siaga training program to attitude variable

Groups	Knowledge		P value*)
	Decrease	Increase	
Control (n=70)	35	35	<0.001
Training (n=35)	1	34	

Based on table presented above, tend to have an increase of attitude showed that the subjects of training group 17.5 times higher than control group.

Table 4 The analysis of the effect of the RW Siaga training program on the knowledge variable

Groups	Knowledge		P value*)
	Decrease	Increase	
Control (n=70)	55	15	<0.001
Training (n=35)	7	28	

Based on the table presented above, tend to have the increase in knowledge showed that the subjects of the training

group were 3.93 times higher than the control group.

Table 5 The analysis of the effect of the RW Siaga training program on attitude variable

Groups	Knowledge		P value*)
	Decrease	Increase	
Control (n=70)	35	35	<0.001
Training (n=35)	1	34	

Based on the table presented above, tend to have an increase in attitude showed that the subjects of the training group

were 17.5 times higher than the control group.

DISCUSSION

Result of this research showed an increase of knowledge level on high category in training group from 71.4% to 94,3%. A different result gained from control group, which showed no significant difference between the two results on pre and post training test.

Similar result showed from the research conducted in India. Community's knowledge increased from 11.6% to 83.5%, in training group rather than control group. The participants who could mention at least 3 different danger signs, significantly increase in number (16.1% - 67.4%).¹³

The training program conducted in this research, was one of persuasive

efforts to community to care and maintain their health. The change gained from this training program resulted from not only a theoretical based given by the facilitator, but also an interactive learning process based on the community's self-experience shared with another member of training participants to enhance their knowledge and attitude through several series of process, such as: listening, observing, simulating, and even a role- modeling.

A knowledge about detection of obstetric complication risk in pregnant women, urgently needed as a basic to develop the community's self-confidence and positive attitude in daily routine to

improve their awareness and emphasize their important role as a main-player in maintaining the quality of their community health life especially pregnant women in risk.

Similar to knowledge variable, attitude variable evaluated in this research, showed an increase from 54.3% to 80% in training group. It stated that by giving this form of RW Siaga training program could give a significant impact to attitude changing process which encouraged the final achievement of the training purposes.

Findings of this research similar to the result gained from research conducted in Guatemala, that showed an increase of community's attitude to do the referral of pregnant women with danger signs cases in training group (64.7%) rather than in control group (53%).^{14,15}

Lazerfeld stated a theory which relevant to the result of this research. Group of peoples with the same background characteristic, such as age, gender, economy status, occupation and religion would have the same change patterns and reaction of attitude.¹⁶

As the changing process of knowledge and attitude could be formed as a result of individual interaction in a group, a social conformity theory would enrich these findings. The changing process could happened as a result of self-internal motivation caused by every each individual has a tendency to adapt the values developed in a group, as well as an imitative process as one of learning process form of people.^{16,17,18}

Analysis explained above emphasizes the findings of this research that RW Siaga training program profoundly had a positive impact to the changing process of knowledge and attitude. These positive changes, expected to contribute into positive behavior forming process in community to and their awareness to maintain their

quality of health life especially for pregnant women in their community

Indicator of community's knowledge about obstetric complication risk danger sings in pregnancy, were evaluated more comprehensively in this research because it enclosed a whole danger signs in pregnancy, not only bleeding as danger sign in pregnancy that evaluated in previous research conducted by JHPIEGO for evaluating SIAGA campaign. Researcher believed that these indicators added in this research could be a beneficial novelty for an incremental reference.

CONCLUSION

RW Siaga training program proven to have a positive effect to increase the score of community's knowledge and attitude in detecting obstetric complication risk in pregnant women in Bandung City. Training group tends to have an increase of knowledge score 3.93 times higher than control group. Also for attitude variable, it tends to have an increase 17.5 times higher than control group. This program proven to be effective and need to be expand in future time by improving the quality of facilitator of RW Siaga training program as a routine agenda and adding an RW Siaga training program in number, by having regard of community leader's characteristic and evaluate the program to maintain its effectiveness in every area of each community health center in Bandung.

REFERENCES

1. UNDP, Bappenas. Laporan perkembangan pencapaian millenium development goals Indonesia (MDGs) Jakarta 2007.
2. http://www.ppiindia.org/angka_kematianibuindonesia_50_per_hari.htm

3. [www. depkes. go. id/profil-kesehatanindonesia2007.pdf](http://www.depkes.go.id/profil-kesehatanindonesia2007.pdf)
4. (UNICEF/WHO).
Community Involvement in Primary Health Care: A study of the process of Community Motivation and Continued Participation, (WHO Report, JC 21/UNICEF-WHO/77- 2); 1977.
5. Morrow M, et al. Reducing Maternal, Newborn and Child Deaths in the Asia Pacific: Strategies that Work Nossal Institute (Morrow, Dayal, Zhen); World Vision Australia (Luke, Gopalakrishnan, and Ndwalla); 2008.
6. N Sharma, N Thapa, K Aryal, et al. Community participation and mobilization in community- based maternal, newborn and child health programmes in Nepal. JNHRC; 2011.
7. Rojahn R. Community-based Intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes: A review synopsis. Cochrane: Public Health Nursing; 2011.
8. Notoatmodjo S. Promosi kesehatan teori dan aplikasi. Jakarta: Rineka Cipta; 2010
9. Departemen Kesehatan RI. Buku pedoman pelaksanaan Desa Siaga. Jakarta; 2006.
10. Pemerintah Kota Bandung. Pemerintahan. [http : //www. bandung. go . id/ ?fa=pemerintah. detail&id=1](http://www.bandung.go.id/?fa=pemerintah.detail&id=1); 2012.
11. Riyanto A. Kapita Selekta Kuesioner penelitian Kesehatan. Jakarta: Salemba Medika; 2012
12. Center for Communication Programs (CCP) | JHPIEGO. Measuring the effects of SIAGA behavior change campaign in Indonesia with population based survey. 2004
13. Amol R D, Pradeep R D, Bishan S G. A Community Based Approach to Improve Health Care Seeking for Newborn Danger Signs in Rural Wardha, India. Indian Journal of Pediatrics vol 76; 2009.
14. Carter M. Husband involvement in the treatment of child illness in Guatemala. J Biosoc Sci. 2004; 36(2): 189-208.
15. Carter M. Husbands and maternal health matters in rural Guatemala: wives' reports on their spouses' involvement in pregnancy and birth. Soc Sci Med. 2002; 55(3): 437-50.
16. Widiastuti T. Perbandingan pespektif disiplin dan tradisi dalam kajian komunikasi antar manusia. Komunika vol. 10 no.2: LIPI; 2009.
17. Prawitasari JE. Psikologi Terapan Melintas batas Disiplin Ilmu. Jakarta: Erlangga; 2012.
18. Ali M, Asrori M. Psikologi remaja perkembangan peserta didik. Jakarta: Bumi Aksara; 2010.