

# Effect of Short Course on the Knowledge and Practice of Housewives Peer Group Activists as Assistance to Lactating Mothers in Providing Exclusive Breastfeeding

## Abstract

**Background:** Efforts to increase the coverage of exclusive breastfeeding require extraordinary innovation supported by many parties, such as community leaders, including Housewives Peer Group activist living as a neighborhood of lactating mothers. The aim of this study was to analyze the effect of a short course on the knowledge and practice of Housewives Peer Group activists as assistance to lactating mothers in providing exclusive breastfeeding. **Methods:** The method of the research was pre and post-test of quasi-experimental. The population was Housewives Peer Group activists in the working area of Tlogosari Wetan Community Health Center, Semarang City. Samples were chosen using purposive random sampling to 37 Housewives Peer Group activists. The intervention given was a short course which should be attended by the group, and the post-test was assessed 1 month after conducting the pre-test. **Results:** The results of the Wilcoxon Match Paired test showed differences in knowledge ( $P < 0.05$ ) and practice ( $P < 0.05$ ) of the Housewives Peer Group activists before and after attending a short course regarding exclusive breastfeeding and lactation management. At the end of the study, the knowledge and practice of the Housewives Peer Group activists increased by 4.21 points and 3.73 points, respectively. **Conclusions:** Short course on exclusive breastfeeding and lactation management significantly influences the increased knowledge and practice of Housewives Peer Group activists that further improve the quality of transferred information, monitor public health, especially to increase the coverage of exclusive breastfeeding and lactation management for breastfeeding mothers.

**Keywords:** Breastfeeding, knowledge, lactation, peer group, training

## Introduction

Breastfeeding provides short-term and long-term benefit, not only related to the health status but also in economic and environmental to children, women, and society. The World Health Organization recommends that all infants should be exclusively breastfed for 6 months or longer. It also advised that mother should continue the breastfeeding for 2 years or beyond. However, these recommendations are not met in many countries including Indonesia. To increase the breastfeeding rate, mothers need a lot of support. Support in breastfeeding is needed in many levels, from the policy support until the community support.<sup>[1,2]</sup>

In Indonesia, the exclusive breastfeeding rate was still low. Based on the Basic Health Survey in 2018, there were only 37.3% babies get exclusive breastfeeding

in Indonesia. While in Central Java, it also showed a similar number, only 37% babies get exclusive breastfeeding.<sup>[3]</sup> According to Semarang City Health Office in 2015, the coverage of exclusive breastfeeding in Semarang City was 64.7% (10,625 from 16,425 infants aged 0–6 months); it was a status quo or there was no improvement compared to that of in 2014, which was 64.7% (8,536 from 13,195 infants aged 0–6 months). This number keeps increasing became 67.16% in 2016, 67.33% in 2017, and 68.22% in 2018.<sup>[4]</sup> Nevertheless, in reality, there are still many babies aged 0–6 months who were not breastfed for 6 months. Furthermore, the lowest exclusive breastfeeding coverage was identified taken place in Tlogosari Wetan, one of the sub-districts in Semarang City. Within the working area of Tlogosari Wetan Community Health Center, 34.3% infants aged 0–6 months were not breastfed and

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only 2.73% infants aged 0–6 months were breastfed only for 6 months. This finding suggests that many infants drop out before they are 6 months old.

The failure of the exclusive breastfeeding practices is due to several reasons, including giving freshwater or formula milk on the first day after the birth of the baby or before giving complementary food to the mother. The low coverage of exclusive breastfeeding in Indonesia is caused partly by lack of maternal knowledge of the importance of breastfeeding for infants, premature feeding, increased promotion of formula milk for infants, and lack of support from the neighborhood as well as health practitioners.<sup>[5]</sup>

Furthermore, efforts to assist lactating mothers have not optimized due to limited number of breastfeeding counselors such as breastfeeding support group. Meanwhile, cadres, voluntary workers from community and working to educate pregnant women, have been empowered as assistants for breastfeeding mothers in the past few years. However, rely upon cadres only is not enough, while community might also take part as an associate counselor such as Housewives Peer Group activists. Housewives Peer Group activists might become reliable because most of them have a close relationship and live as a neighborhood to the breastfeeding mothers within their working area. The objective of this study was to evaluate an intervention to improve the competence of Housewives Peer Group activists, as assistance to breastfeeding mothers, in relation to the increase of exclusive breastfeeding.

The novelty of this research was related to assistance in breastfeeding mothers. Usually, the assisted mothers were pregnant woman, especially high-risk pregnant woman. Mothers usually got information about breastfeeding on the pregnancy class or just a little of breastfeeding counselling counseling during their antenatal care. Besides, this research was done with collaborating with the Housewives Peer Group activists who usually did not have activity related to health. This group is the smallest structure in a community, usually consists of only around 10 households. Therefore, collaborating with the Housewives Peer Group activists expected will be more effective and intensive to assist the breastfeeding mothers.

## Methods

This was a quasi-experimental study with pre and post-test design was conducted in the working area of Tlogosari Wetan Community Health Center, Semarang City. The population of the study was Housewives Peer Group activists in the working area of Tlogosari Wetan Community Health Center, Semarang City. The population was sampled using purposive random sampling and 37 Housewives Peer Group activists (with inclusion criteria of at least graduated from junior high school and able to communicate well) were chosen to carry out assistance independently.

The concept of intervention conducted by Housewives Peer Group activists was assisting breastfeeding mother in relation to breastfeeding and lactation management. Prior to doing the activities, Housewives Peer Group activists were given a short course on how to do role-play, lactation management booklet, and checklist as methods for Housewives Peer Group activists to conduct independent assistance. Later, they assisted breastfeeding mothers for 1 month, during which duration education about exclusive breastfeeding and lactation management in relation to the efforts to increase exclusive breastfeeding was performed.

This intervention was done in 1 month due to the time limit of the research. Therefore, even after the research, it suggested for the mothers to continue to ask the peer group for their assistance during the breastfeeding period. The peer group and the assisted mothers in this research were neighbor. Hence, it is not difficult for the peer group to continue the assistance until the mothers successfully give exclusive breastfeeding for their babies.

Research Design: KI → O 1 ----- × ----- O2

### Note:

KI: Intervention group consisting of 37 Housewives Peer Group activists

O1: Measurement of the initial score (pre-test) before being given an intervention. Variables measured were knowledge and practice of Housewives Peer Group activists regarding exclusive breastfeeding

X: Providing assistance to lactating mothers by Housewives Peer Group activists regarding exclusive breastfeeding

O2: Measurement of the final score (post-test) after being given an intervention. Variables measured were knowledge and practice of Housewives Peer Group activists regarding related to exclusive breastfeeding by trained enumerators.

A questionnaire was used to obtain information on sociodemographic status, birth-related events, knowledge, and practices related to breastfeeding, sources of breastfeeding education, and family support. A Statistical Package for Social Science (SPSS) was used for data entry and analysis. Descriptive analysis was presented in terms of mean and median. Frequencies were reported as numbers and percentages. The mean and SD were calculated for each answer. The validity and reliability of the questionnaires were checked by a questionnaire trial which done in a similar activists group in another area. The questionnaire was revised until the Cronbach alpha score showed 0.87, which means the questionnaire already passed the validity and reliability check.

The knowledge of Housewives Peer Group activists was assessed through exclusive breastfeeding-related questions. Questions are related to knowledge about exclusive breastfeeding and lactation management. Wilcoxon Match

Paired test (data obtained from abnormal distribution) was used to analyze differences and changes in knowledge and practice of Housewives Peer Group activists before and after a short course was given an intervention. The initial stage of knowledge and practice was measured before the intervention, while the final stage of knowledge and practice was measured after Housewives Peer Group activists conducting assistance in 1 month. Before carrying out the study, permission for research (Ethical Clearance no 238/EC/FKM/2017) was given by the Health Research Ethics Commission of the Faculty of Public Health, Diponegoro University.

## Results

### Knowledge of housewives Peer group activists in the working area of Tlogosari Wetan health center

Results showed that before the intervention, most Housewives Peer Group activists did not know about exclusive breastfeeding without adding water, post-cesarean breastfeeding, and bonding. After the intervention, most Housewives Peer Group activists still did not know about breastfeeding without adding water and benefits of breast milk. However, in general, there was an increase in knowledge of Housewives Peer Group activists post intervention as shown in Table 1.

After the intervention, the result showed that the knowledge about lactation management and exclusive breastfeeding of Housewives Peer Group activists, before and after the intervention, was difference ( $P = 0.001$ ) with the average score of 4.21 points. The significant increase in knowledge ( $P < 0.05$ ) was mainly related to breastfeeding without being given water, breastfeeding post-cesarean position, mother's view on the baby while breastfeeding, how to belch the baby, milking breast milk, and the function of breast milk.

### Practice of housewives Peer group activists in Tlogosari Wetan health center working area

The practice of Housewives Peer Group activists was assessed through exclusive breastfeeding-related questions. Questions related to knowledge about exclusive breastfeeding and lactation management concluded that, before intervention, most Housewives Peer Group activists did not provide assistance about cleaning hands and breasts before breastfeeding and bonding or mother's view of the baby. Yet, after intervention, most Housewives Peer Group activists still did not fully provide assistance regarding clarifying the duration of breastfeeding, cleaning the breast before breastfeeding, and how to hold the baby while breastfeeding as shown in Table 2. Even so, other practices related to assistance were implemented well.

### Total scores before and after training of housewives Peer group activists

The results of the normality test Kolmogorov-Smirnov showed that both of the pre-test and the post-test variables

were not normally distributed ( $P = 0.001$ ); thus, the Wilcoxon test was carried out. The Wilcoxon Match Paired test showed a significant difference in knowledge between before the intervention and after the intervention ( $P = 0.001$ ) as shown in Table 3. The results of the normality test showed that the pre-test variable was not normally distributed ( $P = 0.001$ ) and the post-test variable was not normally distributed ( $P = 0.001$ ); thus, the Wilcoxon test was chosen. The Wilcoxon Match Paired test showed a significant difference in practice between before the intervention and after the intervention ( $P = 0.001$ ) as shown in Table 4.

## Discussion

Some ongoing researches on the impact of breastfeeding education programs similar to the one conducted in this study showed that breastfeeding mothers were in need of supporting from persons around them. Breastfeeding support is a complex system of interventions. Breastfeeding support is affected by individual, structural, and environmental factors.<sup>[6]</sup> In this case, breastfeeding counselors could help increase the knowledge and skills of breastfeeding mother. This occurs especially in primi-gravida mothers whose breastfeeding experience is still very limited. In addition, limited information and knowledge regarding breastfeeding from health workers will also be a barrier for mothers in the perception and motivation of giving breastfeeding.<sup>[7]</sup>

Another finding showed that the existence of the assistance proved to increase the understanding of lactating mothers about lactation management. This was consistent with the research conducted in Alaska showing that 97% mothers did exclusive breastfeeding for 6 months and breastfeeding for 2 years after counselors educated them about lactation and exclusive breastfeeding.<sup>[8]</sup> Similarly, research finding concluded that educating breastfeeding mothers, especially after 1 week of postnatal significantly increases the knowledge, attitudes, and practices of mothers in giving exclusive breastfeeding; and the education program was performed through home visits, flipcharts, and breastfeeding diaries.<sup>[9,10]</sup>

In doing their independent assistance, Housewives Peer Group activists delivered material about exclusive breastfeeding and lactation management in various ways, including visual media, booklets, images, and graphics. A research in North Carolina showed a similar finding, namely, Breast Feeding Baby Set Education, which provides lactation and exclusive breastfeeding education by counselors or educators through visual media in the form of flipcharts, books, and flexible time education for breastfeeding mothers; through this intervention, knowledge, motivation, and practice of breastfeeding mothers improve.<sup>[11]</sup> Research in Australia Breastfeeding Association (ABA) proved that the member who gets trained and educated related to breastfeeding had higher levels of exclusive breastfeeding than the general Australian

**Table 1: Differences in knowledge of Housewives Peer Group activists**

Variable	Before		After	
	<i>n</i>	%	<i>n</i>	%
Exclusive breastfeeding without adding water				
Know	1	2.7	26	70.3
Do not know	36	97.3	11	29.7
Abrasion on the breast				
Know	30	81.0	34	91.9
Do not know	7	20.0	3	8.9
Correct breastfeeding position				
Know	31	83.0	35	94.6
Do not know	6	17.0	2	5.4
Breastfeeding position after cesarean				
Know	3	8.9	35	94.6
Do not know	34	91.9	2	5.4
Position of the baby's hands, abdomen, and head while breastfeeding				
Know	30	81.0	36	97.3
Do not know	7	20.0	1	2.7
Breasts (areola) enter the baby's mouth while breastfeeding				
Know	35	94.6	36	97.3
Do not know	2	5.4	1	2.7
Not just nipples				
Know	35	94.6	35	94.6
Do not know	2	5.4	2	5.4
Mother's view on the baby while breastfeeding				
Know	4	10.8	36	97.3
Do not know	33	89.2	1	2.7
How to belch a baby				
Know	37	100.0	37	97.3
Do not know	0	0.0	1	2.7
Benefits of belching a baby				
Know	4	10.8	35	94.6
Do not know	33	89.2	2	5.4
How to milk breast				
Know	4	10.8	36	97.3
Do not know	33	89.2	1	2.7
Benefits of mother's milk				
Know	4	10.8	29	78.4
Do not know	33	89.2	8	21.6

population. The ABA member also showed positive attitudes toward breastfeeding outcomes.<sup>[12]</sup>

One of the advantages of implementing education about lactation management and exclusive breastfeeding conducted by Housewives Peer Group activists was that it could be done at a flexible time. When Housewives Peer Group activists provided assistance, it would be better for families, in this case husband, mother, or mother-in-laws, to participate in the education sessions. This finding was in accordance with the literature stating that family support also increases motivation for mothers to give exclusive breastfeeding and lactation management.<sup>[13]</sup> Research in Ireland also concluded that mothers attend breastfeeding support group in order to meet other mothers to share their knowledge, experiences while fulfilling their social needs

by meeting with each other. The assistance group not only increases their knowledge but also gives supports for the mothers.<sup>[14]</sup>

Housewives Peer Group activists educated breastfeeding mothers and pregnant women three times as a preparation for doing breastfeeding; this was in accordance with the literature stating that effective education on exclusive breastfeeding and lactation management is carried out three times, more optimally if the closest families are involved in.<sup>[11]</sup> Research by Asmiraha, Alasiry and Nontji (2020) also showed that breastfeeding counseling which given through assistance group increases the adequacy of breastfeeding. The research showed that several groups of mothers were given breastfeeding counseling in different frequency: One time, two times, three times, and four times. There was

**Table 2: Differences in practice of Housewives Peer Group activists**

Counseling Variable/Mentoring in	Before		After	
	<i>n</i>	%	<i>n</i>	%
Lactation Management				
Conducted	23	62.2	34	91.9
Not carried out	14	37.8	3	8.1
Breastfeeding Position				
Conducted	23	62.2	34	91.9
Not carried out	14	37.8	3	8.1
Washing hands before breastfeeding				
Conducted	2	5.4	36	97.3
Not carried out	35	94.6	1	2.7
Cleaning breasts before breastfeeding				
Conducted	4	10.8	30	81.1
Not carried out	33	89.2	7	18.9
Applying breast milk to nipples before breastfeeding				
Conducted	22	59.5	33	89.2
Not carried out	15	40.5	4	10.8
How to hold a baby while breastfeeding				
Conducted	28	75.7	32	86.5
Not carried out	9	24.3	5	13.5
Stomach and head position of a baby at breastfeeding				
Conducted	29	78.4	33	89.2
Not carried out	8	21.6	4	10.8
Breasts (areola) enter the baby's mouth while breastfeeding				
Conducted	28	75.7	34	91.9
Not carried out	9	24.3	3	8.1
Mother's view on the baby while breastfeeding				
Conducted	4	10.8	36	97.3
Not carried out	33	89.2	1	2.7
Belching a baby after breastfeeding				
Conducted	28	75.7	33	89.2
Not carried out	9	24.3	4	10.8
Duration of storage of breast milk				
Conducted	20	54.1	26	70.3
Not carried out	17	45.9	11	29.7
Consumption of nutritious food				
Conducted	29	78.4	33	89.2
Not carried out	8	21.6	4	10.8
Oxytocin massage				
Conducted	25	67.6	33	89.2
Not carried out	12	32.4	4	10.8

no difference among groups but there was a relationship between the counseling and assistance and the increase intake of breastfeeding.<sup>[15]</sup>

Furthermore, support from government policy, health workers, services in health facilities, and public facilities are needed to enhance the success of exclusive breastfeeding and lactation management programs. The closest counselors or facilitators of lactation have to provide information and intense motivation to mother to give exclusive breastfeeding and do appropriate lactation management.<sup>[7]</sup> Research on Breastfeeding Support Programme (BSP) proved that support and consultation for mothers are effective in

increasing the breastfeeding duration and exclusivity.<sup>[2]</sup> This showed that the Housewives Peer Group Activists should be giving support and consultation from time to time for every mother in their areas. This group also need to be replicated in every area in Semarang, Indonesia and other countries to help increase the exclusive breastfeeding rate.

## Conclusions

Short course on exclusive breastfeeding and lactation management significantly influences the increased knowledge and practice of Housewives Peer Group activists that further improve the quality of transferred

**Table 3: Different score of knowledge of Housewives Peer Group activists before and after interventions regarding exclusive breastfeeding and lactation management**

Knowledge of Housewives Peer Group Activist about exclusive breastfeeding and lactation management	Before		After	
	<i>n</i>	%	<i>n</i>	%
Correct answer is less than or equal to 75%	33	89.2	0	0.0
Correct answer is more than 75%	4	10.2	37	100.0
Total Score	37	100.0	37	100.0
Mean	14.54		18.75	
SD	1.59		1.09	
Minimum score	14		16	
Maximum score	20		20	
Wilcoxon Test	$P=0.001$ ( $P<0.05$ )			
Delta mean	4.21			

**Table 4: Different score of practice of Housewives Peer Group activists before and after interventions regarding exclusive breastfeeding and lactation management**

Practice of Housewives Peer Group Activist about exclusive breastfeeding and lactation management	Before		After	
	<i>n</i>	%	<i>n</i>	%
Correct answer is less than or equal to 75%	21	56.8	4	10.8
Correct answer is more than 75%	16	43.2	33	89.2
Total Score	37	100.0	37	100.0
Mean	9.35		13.08	
SD	4.26		3.40	
Minimum score	0		3	
Maximum score	13		15	
Wilcoxon Test	$P=0.001$ ( $P<0.05$ )			
Delta mean	3.73			

information, monitor public health, especially to increase the coverage of exclusive breastfeeding and lactation management for breastfeeding mothers in their working area. The role of Housewives Peer Group activists is very important to assist breastfeeding mothers, and it is expected that all breastfeeding mothers and other Housewives Peer Group members can participate not only Housewives Peer Group leader. Furthermore, peer educators within one Housewives Peer Group should work together and provide positive encouragement regarding exclusive breastfeeding and lactation management.

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