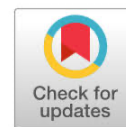


## Education using the emo-demo method increases knowledge and attitudes of third-trimester pregnant women on giving exclusive breast milk



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### ABSTRACT

Achieving the target of exclusive breastfeeding for babies tends to decrease from year to year. This is a threat to children's development. Various efforts have been made, but do not have sufficient leverage to improve the knowledge and attitudes of mothers. The purpose of this study was to know the effect of education with the methods emo-demo on knowledge and attitude of pregnant women in the third trimester of exclusive breastfeeding in the health center of Denpasar. This research was a quasi experimental research with a non-equivalent group design, carried out in Denpasar Public Health Center working area on May until October 2018. The technique are using purposive sampling with a sample size of 40 respondents in both of treatment grup using emo-demo method and control group using conventional counseling method with Maternal and Child Health book. Statistical tests used the Wilcoxon test and the Mann Whitney test. There was no significant difference result of knowledge and attitudes between control and treatment groups before being given education. The comparison result of attitudes between control and treatment group was -3.601; p-value: 0.000. Education using the emo-demo method was able to improve the knowledge and attitudes of third trimester pregnant women in exclusive breastfeeding compared to education with conventional counseling according to the MCH book standards. Emo-demo method was more effective to increase knowledge and attitudes of third trimester pregnant women in giving education about exclusive breastfeeding.

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### INTRODUCTION

Breast milk is the best food for babies in the early period of life. But in reality, the achievement of the ASI coverage target continues to decline from year to year. In Indonesia, it was recorded that only reached 31.5% of the 80% set target (1). This is quite alarming because of the low awareness of the community in providing exclusive breastfeeding. If this condition continues to drag on, this condition will threaten the growth and development of children (2). The provision of appropriate early care for neonates has a positive impact on optimal child growth and development. Exclusive breastfeeding is one of the best ways to

provide nutrition for babies (3). The Indonesian president's recommendation states that efforts to give exclusive breastfeeding in the first six months for infants, continued until 730 days, strongly supports the first 1000 days of life (4).

The province of Bali recorded infant mortality rates below the national average of 4.8 per 1000 live births, had adequate health facilities and health workers that were affordable to the community, but had not been able to reach the specified ASI coverage target (5). The causes of the low achievement of exclusive breastfeeding are the low level of family support, working mothers, the incessant promotion of formula milk, understanding that formula milk is better, and the lack of breast milk secretion. Afifah's study (2007) in Semarang City found that the cause of the failure of exclusive breastfeeding was due to mistaken beliefs about baby food, the promotion of formula milk, and the health of mothers and infants (6). Several studies have found that breastfeeding mothers' knowledge and attitudes are indicators of the success of exclusive breastfeeding. Research Rosyid (2017) in Kebumen, Oktova (2016) in Pekanbaru, and Wargustini (2019) in Palembang find that the better knowledge of mothers on exclusive breastfeeding will be successful (7-9). In contrast to these studies, Wenas (2010) find that knowledge does not affect exclusive breastfeeding, but a more meaningful attitude of nursing mothers (10).

Efforts to increase exclusive breastfeeding have been carried out by the government. Providing education and counseling, counseling with various methods and media has also been carried out. These efforts on average have a positive impact on community understanding. Masthalina's research (2018) in LubukPakam sub-district found that pregnant women who were given intensive counseling on nutrition for infants had greater success in breastfeeding (11). Tampake (2018) found that counseling and booklet media can improve the knowledge and attitudes of nursing mothers (12). However, it seems that this has not provided a great leverage for the increase in exclusive breastfeeding coverage.

Preparation for breastfeeding is better carried out since early pregnancy, even since premarital. Various methods are applied to increase the knowledge and attitudes of mothers and expectant mothers regarding Exclusive breastfeeding. One method that is currently developing is the emo-demo (emotional demonstration) method. The emo demo method is one of the strategies to provide education using emotional strength. This method was developed by the Global Alliance for Improve Nutrition (GAIN) in the form of activities that actively change people's behavior (13). Emo-demo combines interactive and communicative processes that involve people's feelings, needs and thoughts, example for breastfeeding mother (14,15).

The purpose of this research is to know the influence of education for an emo-demo against the knowledge of an attitude of pregnant women in the third trimester of exclusive breastfeeding in the health center of Denpasar. The benefits to be achieved are to provide an overview of effective methods in increasing the knowledge and attitudes of pregnant women and motivating pregnant women to have a high commitment to provide exclusive breastfeeding.

## METHOD

This research is quasi-experimental research with a non-equivalent group design design that is a design using a control group, but not randomly selected. This research was carried out at Public Health of II Denpasar Barat (Puskesmas Pembantu Dauh Puri) and Public Health of I Denpasar Timur because both puskesmas have low exclusive breastfeeding coverage in Denpasar City on May until October 2018. This study has ethical approval from Research centre of Health Polytechnic Of Denpasar by number LB.02.03/EA/KEPK/0279/2018. The study population was all pregnant women. The subjects of this study were selected purposively, those that met the inclusion and exclusion criteria. Inclusion criteria included pregnant women who had never had exclusive breastfeeding experience, had a minimum gestational age of 28 weeks, had no chronic

illness, could read, and write, were healthy mothers and fetuses. The exclusion criteria are refusing to become respondents and experiencing contraindications to breastfeeding. The sample size is 20 respondents in each treatment group and control group. Group treatment performed method education with emo-demo, while the control given conventional counseling as standard in Books Maternal and Child Health (MCH). The type of data collected is primary data based on pre-test and post-test results. The instrument is used a questionnaire of knowledge and attitudes that have been tested. Analysis with descriptive, normality test with Shapiro Wilk, analysis test with Wilcoxon and Mann Whitney tests. The whole test uses SPSS version 16.

## RESULTS

Public Health of II Denpasar Barat is health centers provide basic health services in West Denpasar District and is located at Jalan Gunung Sopotan Gang PHC 3 Denpasar Barat. This health center organized effort to essential health and health development of the ministry of health promotion; environmental health services; maternal, child and family planning health services; nutrition services; disease prevention and control services and efforts based on environmental conditions and the possibility of disease development in the work area of the public health (16).

Public Health of I Denpasar Timur has a work area that includes 4 villages and 2 villages. Compulsory health efforts implemented at the East Denpasar Health Center I include Health promotion efforts, environmental health efforts, MCH and family planning efforts, community nutrition improvement efforts, prevention efforts to eradicate infectious diseases (P2M), public health care, and individual health efforts (17).

Analysis of data normality with the Shapiro-Wilk test, showed the results of  $p$  value  $< 0.05$ , so that it was followed by a nonparametric statistical analysis of the Wilcoxon Test and Mann-Whitney Test (18).

**Table 1 Differences in knowledge and attitudes of Trimester III pregnant women before and after education using the emo-demo method**

Indicator	Mean rank	Z	Value of p
Knowledge	Positive ranks: 10	- 3,846	0,000
Attitude	Positive ranks: 11	-3,885	0,000

Note: Z = Wilcoxon signed ranks test

Table 1 above shows that the average post-test results of knowledge of respondents who were given education by the emo-demo method rather than the pre-test results were 10, with the results of knowledge analysis before and after being given education by the emo-demo method significantly different i.e.,  $p$  value  $< 0.01$ . On average h acyl post test, the attitude of the respondents y a ng be educated with emo-demo method than pre-test results is 11, with the results of the analysis of attitudes before and after a given educational method-demo emo differ significantly by  $p$  value  $< 0.01$ .

**Table 2 Differences in knowledge and attitudes of Trimester III pregnant women before and after counseling**

Indicator	Mean rank	Z	Value of p
Knowledge	Negative ranks: 9.25	- 0.992	0,321

Indicator	Mean rank	Z	Value of p
Attitude	Positive ranks: 6.80	- 1,892	0.0 58
	Negative ranks: 8.50		
	Positive ranks: 9.88		

Note: Z = Wilcoxon signed ranks test

Table 2 above shows that the average results of post test knowledge of respondents is giving appropriate counseling conventional standards MCH book greater than the pre-test results is 9.25, but the average post test results of respondents' knowledge smaller than the result of the pretest was 6.80. The results of knowledge analysis before and after conventional counseling according to the MCH book standard found no significant results, namely  $p$  value  $> 0.05$ . The average post-test results of the attitude of respondents who were given conventional counseling according to the standard MCH handbook greater than the pre-test results was 8.50, but the average results of the post-test attitude of respondents who were smaller than the pre-test results were 9, 88 so that the results of the analysis found no significant results, namely  $p$  value  $> 0.05$ .

**Table 3. Comparison of knowledge and attitudes of Trimester III pregnant women before education between the emo-demo method and counseling**

Indicator	Group	Mean rank	Z	Value of p
Knowledge	Control	22.8	- 1,257	0, 221
	Treatment	18.2		
Attitude	Control	18.65	-1,002	.327
	Treatment	22.35		

Note: Z = Mann-Whitney U test

Table 3 shows the average knowledge of the treatment group before being given education by the emo-demo method was 18.2, the control group before being given education with conventional counseling according to the MCH handbook standards was 22.8. The results of the analysis found no significant difference between groups control as well as the treatment group  $p$  value  $> 0.05$ . The average attitude of the treatment group before being given education by the emo-demo method was 22.35, the control group before being given education with conventional counseling according to the MCH book standards was 18.65. The analysis found no significant difference between the control group and the treatment group  $p$  value  $> 0.05$ .

**Table 4. Comparison of knowledge and attitudes of Trimester III pregnant women after education between the emo-demo method and counseling**

Indicator	Group	Mean rank	Z	Value of p
Knowledge	Control	13.62	- 3,758	0, 000
	Treatment	27.38		
Attitude	Control	13.85	- 3,601	0, 000
	Treatment	27,15		

Note: Z = Mann-Whitney U test  
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Table 4 shows the average knowledge of the treatment group after being given education by the emo-demo method is 27.38, the control group after being given education with conventional counseling according to the MCH handbook standards is 13.62. The analysis found that there was a significant difference between the control group and the treatment group  $p$  value  $<0.001$ . The average attitude of the treatment group after being given education with the emo-demo method was 27.15, the control group after being given education with conventional counseling according to the MCH handbook standards was 13.85. The analysis found that there was a significant difference between the control group and the treatment group  $p$  value  $<0.001$ .

## DISCUSSION

The analysis finds that all the respondents were given educational method is emo-demo on the average results of post test knowledge is greater than the pre-test results are analyzed. The following is found a significant difference before and after the respondents' knowledge be educated by the method of emo demo ( $p$ -value  $<0.001$ ). This shows that education with the emo-demo method is effective in increasing respondents' knowledge. The emo-demo method involves all of the respondents' feelings, emotions and beliefs to understand a phenomenon. In this case, respondents are invited directly to imagine, check, understand more deeply about how good breast milk, comparison of breast milk with formula milk, learn about the capacity of the baby's stomach, calculate the economical side of breast milk compared to formula milk, even see a demonstration of the comparison of the amount of milk production if the baby is given formula milk with only breastfed babies. This method also invites the active participation of respondents to assess a situation where it is shown the use of travel preparation time for mothers who give formula milk compared to mothers who give only breast milk. In this case the education with the emo- demo method can touch the feelings of the respondent, so that the respondent's memory about exclusive breastfeeding is better (13). Similarly, the attitude results found that all respondents who were given education by the emo-demo method were at an average post test results attitudes greater than the pre-test results ie 1. After being analyzed found significant differences in the attitudes of respondents before and after they were given education using the emo-demo method ( $p$ -value  $<0.001$ ). Increased knowledge of respondents about Exclusive ASI was able to change the respondents' perceptions and attitudes in a positive direction. According with with research Setiyowati (2010) found that the higher the mother's knowledge, there attitude breastfeeding mothers into positif so as to provide exclusive breastfeeding to their babies (19).

The results of the study in the control group that were given conventional counseling according to the MCH book standards found that the average post-test results of respondents' knowledge greater than the pre-test results were 9.25, but the respondents' post-test results were smaller than the pre-test results are 6.80. Data analysis found insignificant results with  $p$  value  $> 0.05$ . This shows that conventional counseling according to the MCH handbook has not been able to increase respondents' knowledge. Midwives give IEC to respondents simply by showing and asking respondents to read the MCH book in accordance with the material on a particular page. Of course, this is not able to motivate respondents to read the MCH handbook independently and consequently the knowledge of respondents regarding exclusive breastfeeding remains lacking. Bonding emotional and a good relationship with the respondent also affect the confidence of respondents to follow the advice of the midwife. If the respondent feels unsure and trustworthy then the respondent will find it difficult to follow the midwife's advice, so that the respondent's knowledge from before and after counseling does not increase significantly. Similarly, the average post-test results of the attitude of respondents who were given conventional counseling according to the standard of the MCH handbook were greater than the average pre-test results were 8.50, and the average results of the post-test results of the attitude of respondents were smaller than the average the average pre-test

result was 9.88, so the results of the analysis found no significant difference with  $p$  value  $> 0.05$ . This shows that attitude also does not change from before and after conventional counseling. Respondents' knowledge which is still unable to change the respondent's attitude to be positive about Exclusive breastfeeding. The results of a systematic review by Lumbiganon (2016) found that breastfeeding interventions with booklets and videos without direct consultation did not provide significant benefits for increasing respondents' knowledge and attitudes. On the other hand, it was found that lactation counseling accompanied by the provision of booklets, video playback and the delivery of messages on a regular mobile phone every week increased the success of exclusive breastfeeding (20). Senda with this systematic review prepared by Haroon (2013) found that individual counseling combined with group counseling can increase respondents' knowledge (21)

When compared to the knowledge and attitude of the respondent before being given a good education with emo-demo method and conventional counseling according standard in MCH book found no difference with  $p$  value  $> 0.05$ . This indicates that the two respondents have almost the same knowledge. The characteristics of the two groups on average have similar characteristics, namely secondary education, and occupation as a housewife. These characteristics enable respondents to have similar insights and social environments, so that the knowledge and attitudes of respondents before being given education by the two methods are the same.

The results of research on respondents' knowledge after being given education showed that the average group knowledge given the emo-demo method was 27.38, but the group given the counseling method was 13, 62. The attitude of the group given education by the emo-demo method was 27, 15, while the group given education with conventional counseling according to the MCH book standards reached 13.85. This shows that respondents who were given education using the emo-demo method experienced an increase in knowledge and attitudes better than education with conventional counseling according to the MCH book standards. Providing education that involves all five senses will improve respondent's memory so that the attitude shown also becomes more positive (22). The emo-demo method involves the sense of sight, touch, hearing, and giving an opinion on what has been seen. Conventional counseling according to standards only shows the page that must be read by the respondent, so that health workers are not able to control the respondent's understanding of what is read. Conventional counseling according to standards is not able to facilitate to provide understanding to respondents at all levels of education. Sometimes the respondent understands and sometimes the respondent does not understand because the information is only one direction. Zhu (2017) recommends that forms of health promotion should focus more on providing support and motivation to nursing mothers to provide exclusive breastfeeding. In this emo-demo method, health workers not only explain the theory of exclusive breastfeeding but talk more about the facts that occur in everyday life related to breastfeeding. For example, respondents are invited to think and choose the capacity of the baby's stomach when new born. Most respondents previously did not know how much the baby's stomach capacity after birth. They think that when a baby cries it must be because of thirst and lack of milk. But when the respondent is shown the large capacity of the baby's stomach, then they realize and understand that babies crying is not always thirsty and do not always have to immediately give formula milk to meet the thirst of babies (13).

## CONCLUSION

The results of the study found that there were differences in respondents' knowledge and attitudes before and after being given education by the emo-demo method. There is no difference in knowledge and attitudes of the respondents were given conventional counseling education with appropriate standards MCH book. There was no difference in respondents' knowledge and attitudes before being given education by emo-demo methods

and consional counseling. There are differences in knowledge and attitudes of respondents after being given education between the emo-demo method and conventional counseling according to the MCH book standards. It is recommended in providing health promotion, the method used must involve all five senses and include the feelings and emotions of the community, so that the goal of health promotion is achieved.

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