Available online at **www.ijmrhs.com**

ISSN No: 2319-5886

International Journal of Medical Research & Health Sciences, 2019, 8(7): 1-6

Effect of Module Exclusive Breastfeeding Knowledge, Attitude and Confidence in Young Women in Tarakan

Muhammad Aris[1]*, Muliyadi[1], Lily Herawati[1] and Faizal Mustamin[2]

[1] *Kaltara Nursing Academy, North Kalimantan, Indonesia*

[2] *Kaltara Pharmacy Academy, North Kalimantan, Indonesia*

**Corresponding e-mail: abuizzah74@gmail.com*

ABSTRACT

Background: *Knowledge, attitudes, and beliefs among young women to breast milk are still low.* ***Aim:*** *This study wanted to assess the effect of exclusive breastfeeding module on knowledge, attitudes, and beliefs of young women in the town of Tarakan.* ***Method:*** *Quantitative research with pre-posttest without control subjects were students of SMK Health Kaltara Tarakan with the number of samples (n=50) of respondents. Before the module manufacturing, the survey was conducted as drafting. Modules were in narrative form and were tested before correction by experts. Submission of exclusive breastfeeding module is done after pre-test for the measurement of knowledge, attitudes, and beliefs of young women against exclusive breastfeeding. The data were analyzed using the t-test.* ***Results:*** *Characteristics of respondents in general age was at 15-16 years (80%). The majority was among the first and second children (74%) and the number of siblings was between 2-3 years (54%.) Knowledge, attitudes, and beliefs after the intervention were 10.08 ± 0.85, the attitude was 29.64 ± 1.41, and confidence was 31.50 ± 1.31. It was statistically significant at p<0.05.* ***Conclusions:*** *Learning with exclusive breastfeeding module method can improve knowledge, attitudes, and beliefs of young women against exclusive breastfeeding in Tarakan.*

Keywords: Knowledge, Attitudes, Beliefs, Young women, Exclusive breastfeeding module

INTRODUCTION

The prevalence of exclusive breastfeeding in a whole new world is around 39%, while in developing countries it does not exceed 30% [1,2]. The prevalence of exclusive breastfeeding in Indonesia in accordance with the Indonesian Ministry of Health Profile 2014 is 52%, and in 2015 rise to 55.7%. This figure is still far from the national and international targets (80% and 90%). In North Borneo, the exclusive breastfeeding prevalence rate was 56.2% [3].

Exclusive breastfeeding is closely associated with morbidity and mortality in children [4-6]. The child is not exclusively breastfed during diarrhea and pneumonia [4,5], More than 10 million children died at the age of 5 years due to inadequate breastfeeding [7]. Of these deaths, 41% occur in sub-Saharan Africa and 34% in Asia [7]. Other studies showed that exclusive breastfeeding can protect the hands, feet, and mouth of a child from germs until the age of 28 months [8]. Other than this it will also increase the endurance of the infection [9]. According to the previous research, it has added intelligence in children [10].

According to Government regulation number 33 in 2012, the government seeks to raise the achievement of exclusive breastfeeding. In addition, interventions study using the module has been carried out; other forms that can be done to involve teenagers in high school were carried out. Involvement was in the form of providing materials exclusive breastfeeding in school. Silva ASI said that educational interventions targeting school children can improve knowledge, attitude is very positive [11,12]. Other than Zeller in dissertation reports say that learning to use modules can improve the knowledge and attitudes of adolescents to exclusive breastfeeding [11]. This study wanted to develop exclusive breastfeeding module for adolescent girls.

MATERIALS AND METHODS

Research Sites

This research was performed in Tarakan with an area of 20.80 km^2. This town has a population of 226,470 inhabitants, while the number of high schools was equivalent to as many as 19 pieces.

Research Design

The research was performed using quasi-experimental design and was given pre-test and post-test without control.

Research Subjects

The sample in this study was 50 respondents.

Implementation Research

The research was conducted at SMK Health Kaltara Tarakan in November 2017.

Variable Measurement and Analysis of Data

Knowledge, attitudes, and beliefs were measured using a questionnaire. The questionnaire has been tested before. The questionnaire was divided into 3 parts. The first part measures the knowledge with the number 16-item statement and using the scale Gutman. The provision of the first part was if the answer is correct to point 1, and if the answer is wrong to point 0 with a total value of 16 points. The second part measures the attitude of the 13-item statement, using a Likert scale (modified). Provisions second part is if the answer is agreed 3 points, 2 points for hesitated, and point 1 for did not agree with a total value of 39 points. The third part of the confidence was measured with 12-item statements and using a Likert scale (modified). Provision third part was, if the answer is sure 3 points, 2 points for hesitant and point 1 for unsure with a total value of 36 points.

RESULTS

Characteristics of Respondents

Characteristics of the sample are shown in Table 1. The study found that the majority of respondents were 15-16 years old (80%). In addition, based on birth order, the first and second children were found to be 74% and siblings were between 2-3 years (54%).

Table 1 Characteristics of respondents

Characteristics	%	Total
Age (Years)		
15-16	80%	100
≥ 17	20%	
Birth Order		
1-2	74%	100
3-4	14%	
5-6	6%	
≥ 7	6%	
Number of siblings		
Only child	10%	100
2-3	54%	
4 6	28%	
≥ 7	8%	

Knowledge, attitudes, and beliefs of respondents before the intervention are presented in Table 2. Knowledge of respondents from 16-item was lowest in statement 14 (0.04 ± 0.19) and highest in statement 4 (0.98 ± 0.14). While the attitude of the 13-item statement, in Table 3 the lowest is statement 5 (1.24 ± 0.51) and the highest statement is 8 (2.76 ± 0.55). In addition, the visible confidence of respondents was lowest in statement item 12 (1.68 ± 0.71) and highest in the statement of 9 (2.98 ± 0.14) (Table 4).

Knowledge of Respondents after the Intervention Module

After the intervention in the respondents' knowledge presented in Table 2, an increase in knowledge after the intervention was observed. This is evident from the 16-item statement of truth level of respondents on average above 50% except 14 statement was just 42%. Changes in respondents' knowledge after intervention were statistically modules and significant at $p<0.05$. So it looks after the intervention increased knowledge of the highest in the statement of one, two, three and five with a 100% response rate of truth (1.00 ± 0.00). In addition to the statement of 4, there was specifically a decrease (0.98 ± 0.72 vs. 0.14 ± 0.45).

Table 2 Respondents' knowledge of exclusive breastfeeding

Statement	Before	After	p-value
Exclusive breastfeeding term	0.52	1.00	0.00
Definition of exclusive breastfeeding	0.58	1.00	0.00
Limits are said to be exclusively breastfed children	0.58	1.00	0.00
Formula milk	0.98	0.72	0.00
Benefits of exclusive breastfeeding	0.48	1.00	0.00
Negative effects of contraception	0.30	0.88	0.00
Caring for Breasts	0.26	0.76	0.00
Characteristics of adequate breastfeeding	0.28	0.88	0.00
Knowledge of ASI Characteristics is adequate	0.22	0.66	0.00
The milk production has decreased	0.30	0.70	0.00
The term Nipple confusion	0.26	0.68	0.00
Definition of Nipple confusion	0.20	0.90	0.00
The term breast abscess	0.12	0.56	0.00
Definition of breast abscess	0.04	0.42	0.00
Breastfeeding advice in the Qur'an	0.32	0.72	0.00
Islam governs you as a brother	0.36	0.76	0.00
Total	3.98	10.08	0.00
p<0.05; Uji T Paired Samples Test			

The Attitude of the Respondents after the Intervention Module

Table 3 shows the 13-item statement before the intervention and after the intervention. The lowest value prior to the intervention is a statement of 5 with a value of (M=1.24 SD=0.51) and the highest was 8 (M=2.76 SD=0.55). After the intervention of the highest value on the statement of 1 (M=2.98 SD=0.14) and lows statement 3 (M=2.08 SD=0.72) and 4 (M=2.08 SD=0.82). The average value before and after the intervention (M=24.98 SD=2.16 vs. M=29.6 SD=1.41 p> 0.05) from 13-item statement statistically significant except for the statements of all 8 (M=2.76 SD=0.55 vs. M=2.80 SD=0:49, p=0709).

Table 3 Respondents' attitude towards exclusive breastfeeding

Statement	Before	After	p-value
Breastfeeding is close to children	2.68	2.98	0.002
Breastfeeding is another woman in a room	2.66	2.92	0.008
Use of family planning contraception	1.66	2.08	0.002
Breastfeeding is another male roommate	1.58	2.08	0.002
Breastfeeding in a public place	1.24	2.52	0.000
Not ashamed to see people breastfeeding	1.68	2.82	0.000
Motivating women to give exclusive breastfeeding to their children	2.64	2.90	0.022
The teacher gives motivation so that students understand the importance of exclusive breastfeeding	2.76	2.80	0.709
Exclusive breastfeeding material is included in the curriculum	1.46	2.52	0.000
Busy does not hinder exclusive breastfeeding	2.40	2.92	0.000
Breastfeeding Little is not an obstacle to exclusive breastfeeding	1.28	2.60	0.000
Give breastfeeding until the age of 6 months	1.92	2.82	0.000
Will give exclusive breastfeeding if they have children	2.14	2.76	0.000
Total	24.98	29.64	0.000

Confidence Respondents after the Intervention Module

Changes confidence before and after the intervention subjects are presented in Table 4. Before the intervention of the lowest value on the statement of 11 (M=1.68 SD=0.71) and the highest in the statement of 9 (M=2.98 SD=0:14). After the intervention of the highest change in the statement of 1 (M=2.98 SD=0:14) and the lowest is a statement of 9 (M=1.62 SD=0.69). The average value before and after the intervention of 12-item statement of all significant (F=26.76 SD=1.75 vs. M=31.50 SD=1.31, $p<0.05$) except the statement of 8 changes were not significant (M=2.54 SD=0.73 vs. M=2.38 SD=0.69, p=0.306).

Table 4 Respondents' confidence in exclusive breastfeeding

Statement	Before	After	p-value
Benefits of exclusive breastfeeding to children and their mothers	2.68	2.98	0.001
Breastfeeding is a natural way	2.68	2.96	0.003
Nursing mothers feel responsible for their children	2.72	2.92	0.049
Clean the breast if you want to breastfeed the child	2.54	2.80	0.018
Breast milk is healthier than formula milk	2.20	2.92	0.000
Breastfeeding is more natural than formula milk	2.60	2.90	0.004
Colostrum must be discarded because it is stale	2.26	1.90	0.030
Newborn children must be trained	2.54	2.38	0.306
Boys need more milk than girls	2.98	1.62	0.000
If pregnant women must stop giving breastfeeding	2.30	2.56	0.036
Use of contraception	1.68	2.40	0.000
Mothers breastfeed more time to sleep	2.20	2.56	0.011
Total	27.74	29.34	0.000
$p<0.05$ Uji T Paired Samples Test			

DISCUSSION

The research found that respondents' knowledge of exclusive breastfeeding is still low. Based on the result of a questionnaire of 16-item statement it was found that the respondents' answers to the statement of 5-16, the average score was less than 0.40 before the given module exclusive breastfeeding. The results are consistent by Vivien Swanson research in Scotland. Improved knowledge of the respondent after the given module of the 16-item statement of the average value of each item was above the 0.60% level of truth respondents, except the statement of 13 and 14 but it is still significant ($p<0.05$) [13]. Respondents who read module can change the knowledge reflected in the 4 statement that the respondents decreased the numbers because the statement is negative so that after reading the responder module can understand that formula milk can cause diarrhea in infants. This study provides an exclusive breastfeeding module as a learning medium which can increase the knowledge of the respondent is the same thing delivered by Zeller. Many young women marry after completion of high school and did not know the majority of exclusive breastfeeding [14,15]. According to Daniel, teenagers need to be given information about exclusive breastfeeding for not planning a pregnancy and have not decided to breastfeed or provide additional food [16].

These results indicate that before the intervention respondents' attitude towards breastfeeding is still low. Because according to Azwar, there are several factors that may influence the formation of attitude which is a personal experience, the influence of others that are considered important, the influence of culture, education, religion and mass media [17]. Interventions were provided to respondents in the form of modules in this study which can influence the attitudes of respondents to exclusive breastfeeding. It depicted 13-item statistical statement of all significant changes with a $p<0.05$ except the statement [8]. Module exclusive breastfeeding as a learning medium can be taught in schools. School as a place of learning is used to shape the attitude of learners. Because attitude towards breastfeeding is formed from the beginning of life and ultimately consequences for the practice of breastfeeding as said by Goulet, et al., [11,18].

Fujimori said that health education effect on the attitude of elementary school children about the benefits of breastfeeding [11,19]. The school is a means to intervene in the formation of attitudes towards the benefits of breastfeeding. Breinbauer says that promoting a healthy lifestyle should be an option so that the knowledge, beliefs, and attitudes during adolescence will influence the behavior of a lifetime [11,20]. According to Martens, direct teaching, students are more aware of the positive benefits of breastfeeding, do not be embarrassed to see women breastfeeding in public,

and is willing to promote breastfeeding as an infant feeding choice [11,21]. The study found that young women agreed exclusively breastfed material included in the school curriculum, it is similar to the results of Ho that breastfeeding information needs to enter the school curriculum and delivered early to adolescents [22]. The findings of Spear were that high school students have a positive attitude towards breastfeeding and support breastfeeding promotion in the setting of formal education [23].

The respondent's conviction changes among all groups the rural and urban areas before and after the intervention. Our research found that respondents' confidence remains low for exclusive breastfeeding but changed after a given module that exclusive breastfeeding is statistically significant for all ($p<0.05$) except statement 8. Module respondents could affect confidence as reflected in the statement of 7 and 9. Answer respondents in this statement mean the number decreased colostrum respondents have understood that is helpful in newborns. This is in line with the findings of Seidel that the respondent confidence remains low pre-test but after being given health education and given posts changing knowledge, attitudes, and beliefs about the benefits of breastfeeding increased [24]. Breastfeeding decreased of mothers who did not know about the art and were vulnerable to public scepticism and shame, because it is not talked openly and observed as a normal way of feeding a baby Ellis [11,21]. The school curriculum can include material about exclusive breastfeeding as one part of the subjects in school. The results of this research line are said by Silva, which showed that breastfeeding educational interventions targeting school children can have very positive results, increasing confidence in the importance of breastfeeding [11,12].

This study found that exclusive breastfeeding modules can be useful to increase respondents' knowledge of exclusive breastfeeding. This study can help researchers to uncover the problem of increasing the coverage of exclusive breastfeeding so that early knowledge of young women can improve knowledge and attitude towards exclusive breastfeeding so that the exclusive breastfeeding module can be used to increase the achievement of exclusive breastfeeding.

The limitation of this study is that the number of respondents is limited and the modules used are only tested once.

CONCLUSION

Giving module exclusive breastfeeding can boost the knowledge, attitudes, and beliefs of Muslim teenagers to exclusive breastfeeding. Exclusive breastfeeding is suggested in the input material in the school curriculum.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

[1] Teka, Bahre, Huruy Assefa, and Kiday Haileslassie. "Prevalence and determinant factors of exclusive breastfeeding practices among mothers in Enderta woreda, Tigray, North Ethiopia: a cross-sectional study." *International Breastfeeding Journal,* Vol. 10, No. 1, 2015, p. 2.

[2] Kementerian Kesehatan, R. I. "Infodatin, Data and Information Center of the Ministry of Health, RI)." *Jakarta: Kementerian Kesehatan Republik Indonesia*, 2014.

[3] Indonesia, Kementerian Kesehatan. "Profil kesehatan Indonesia tahun 2011." 2015.

[4] Kramer, Michael S., and Ritsuko Kakuma. "The optimal duration of exclusive breastfeeding." *Protecting infants through human milk*. Springer, Boston, MA, 2004, pp. 63-77.

[5] Lamberti, Laura M., et al. "Breastfeeding for reducing the risk of pneumonia morbidity and mortality in children under two: a systematic literature review and meta-analysis." *BMC Public Health,* Vol. 13, No. 3, 2013, p. S18.

[6] Ericson, Jenny, et al. "The effectiveness of proactive telephone support provided to breastfeeding mothers of preterm infants: study protocol for a randomized controlled trial." *BMC Pediatrics,* Vol. 13, No. 1, 2013, p. 73.

[7] Teka, Bahre, Huruy Assefa, and Kiday Haileslassie. "Prevalence and determinant factors of exclusive breastfeeding practices among mothers in Enderta woreda, Tigray, North Ethiopia: a cross-sectional study." *International Breastfeeding Journal,* Vol. 10, No. 1, 2015, p. 2.

[8] Lin, Hualiang, et al. "Protective effect of exclusive breastfeeding against hand, foot and mouth disease." *BMC Infectious Diseases,* Vol. 14, No. 1, 2014, p. 645.

[9] Ericson, Jenny, et al. "The effectiveness of proactive telephone support provided to breastfeeding mothers of preterm infants: study protocol for a randomized controlled trial." *BMC Pediatrics,* Vol. 13, No. 1, 2013, p. 73.

[10] Roia, Anna, et al. "Promoting effective child development practices in the first year of life: does timing make a difference?" *BMC Pediatrics,* Vol. 14, No. 1, 2014, p. 222.

[11] Zeller, Cynthia Lee. "Effects of education on breastfeeding knowledge and attitudes among middle school students." *Health Education Journal,* Vol. 75, No. 4, 2016, pp. 501-10.

[12] Costa, Mônica M., et al. "The impact of an educational intervention on breastfeeding." *Health Education,* Vol. 106, No. 4, 2006, pp. 309-14.

[13] Swanson, Vivien, et al. "The impact of knowledge and social influences on adolescents' breastfeeding beliefs and intentions." *Public Health Nutrition,* Vol. 9, No. 3, 2006, pp. 297-305.

[14] Zeller, Cynthia Lee. "Effects of education on breastfeeding knowledge and attitudes among middle school students." *Health Education Journal,* Vol. 75, No. 4, 2016, pp. 501-10.

[15] Statistics, Central Agency, UNICEF, and Pending Progress. "Analysis of data on child age marriage in Indonesia." *Jakarta: Central Bureau of Statistics*, 2016.

[16] Leffler, Daniel. "US high school age girls may be receptive to breastfeeding promotion." *Journal of Human Lactation,* Vol. 16, No. 1, 2000, pp. 36-40.

[17] Saifuddin, Azwar. "Sikap manusia." *Yogyakarta: Pustaka Belajar,* 2005.

[18] Goulet, Céline, et al. "Attitudes and subjective norms of male and female adolescents toward breastfeeding." *Journal of Human Lactation,* Vol. 19, No. 4, 2003, pp. 402-10.

[19] Fujimori, Mahmi, et al. "The attitudes of primary school children to breastfeeding and the effect of health education lectures." *Journal of Pediatrics,* Vol. 84, No. 3, 2008, pp. 224-31.

[20] Breinbauer, Cecilia, and Matilde Maddaleno. *Youth: Choices and change: Promoting healthy behaviors in adolescents*. Vol. 594. Pan American Health Org, 2005.

[21] Ellis, Donelda J. "Secondary school students' attitudes and beliefs about breastfeeding." *Journal of School Health,* Vol. 53, No. 10, 1983, pp. 600-04.

[22] Ho, Yen-Ju, and Chao-Chin Yu. "Attitudes of high school and vocational school students toward breastfeeding in Taiwan." *The Journal of Perinatal Education,* Vol. 23, No. 2, 2014, pp. 89-95.

[23] Spear, Hila J. "College students' experiences and attitudes regarding middle and high school-based breastfeeding education." *The Journal of School Nursing,* Vol. 23, No. 5, 2007, pp. 276-82.

[24] Seidel, Allison K., et al. "Comparison of breastfeeding knowledge, attitudes, and beliefs before and after educational intervention for rural Appalachian high school students." *South Medicine Journal,* Vol. 106, No. 3, 2013, pp. 224-29.