## **Original Research Article**

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# The rule of health education on the prospective grooms' and brides' awareness in Tarakan city

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#### **ABSTRACT**

**Background:** This study was intended to assess the influence of the exclusive breastfeeding module on the awareness of prospective brides in Tarakan city.

Methods: The quantitative approach with pretest and posttest was chosen as research method. The research subjects were prospective brides who were undergoing prenuptial guidance at the Ministry of Religion office in Tarakan city with a sample size of respondents (n=100). Before the module was developed, a survey was conducted as a research draft. The module is created in narrative form and is corrected by experts prior to testing. The exclusive breastfeeding module was spread after the pretest was carried out to measure the awareness of the prospective brides on exclusive breastfeeding. Data analysis was done with t test.

**Results:** Characteristics of the male respondents in the reading exclusive breastfeeding module group were generally aged 25-30 years (52%) and the group listening to the lectures were generally aged 20-24 years and 25-30 years (32% and 32%). Meanwhile, the female respondents in the reading module group and the listening group were generally 25-29 years (40%) and 20-24 years (56%). Male respondents in the reading exclusive breastfeeding module group and the listening to lectures group were generally self-employed (76% and 88%). The male respondents' awareness in the reading module group and listening to lectures group was statistically all significant with a p<0.05.

Conclusions: Basically, all female respondents' awareness in the reading module and lecture group was statistically significant with a p<0.05. Health education through reading exclusive breastfeeding modules and listening to lectures can increase the brides' and grooms' awareness of exclusive breastfeeding.

**Keywords:** Awareness, Future bride and groom, Exclusive breastfeeding module

## INTRODUCTION

Based on WHO data (2009), each year 220,000 children will be saved and grow up optimally if they are exclusively breastfed.<sup>1</sup> n addition, Victora stated that giving exclusive breastfeeding (EBF) to the maximum period will prevent the death of 823,000 children aged 5 years.<sup>2</sup> Research shows many benefits of giving EBF to both the mother and the baby.<sup>2,3</sup> However, the prevalence of EBF globally is only around 36% and in Sub-Saharan

Africa 31%.<sup>4</sup> It is also seen in some countries such as South Asia where EBF is estimated to be around 45%.<sup>5</sup> In Brazil, EBF is 24.2% out of total cases while in Nigeria and the United States, the EBF in motherhood were 16.4% and 16%, respectively.<sup>6</sup> However, the lowest prevalence for exclusive breastfeeding (13.7%) was in South Africa and developing countries does not exceed 30%.<sup>7</sup> The prevalence of EBF in Indonesia according to the 2014 Indonesian ministry of health profile is 52%, in 2015 it increased to 55.7%, the 2017 IDHS report reached 52% and in 2018 it increased 68.75%. This figure is still

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far from the national and international targets (80% and 90%). In North Kalimantan in 2015 the prevalence rate of exclusive breastfeeding was 56.2% and in 2018 it increased to 60%.8 EBF is closely related to morbidity and mortality cases in children in the world.9 Children who are not exclusively breastfed may develop diarrhea and pneumonia.10 More than 10 million children under the age of five die from inadequate breastfeeding.<sup>11</sup> Of these cases, 41% occurred in sub-Saharan Africa and 34% in Asia.<sup>7</sup> Another study showed that EBF can protect the hands, feet and mouth of children from germs until 28 months of age. 12 In addition, it will also increase the body's resistance to infection.<sup>13</sup> Previous research states that EBF will increase intelligence in children.<sup>14</sup> Government regulation number 33 of 2012 is a government effort to increase the achievement of EBF appliance.<sup>15</sup> In addition, intervention research using modules has been carried out in this study. 16 Another form that can be done is carried out by involving teenagers in high school. Involvement in the form of providing EBF material in schools.<sup>17</sup> Costa said that breastfeeding and EBF education interventions targeting school children can increase knowledge and awareness in public which is very positive. 18 In addition, Zeller in his dissertation report said that learning using modules can increase the awareness of EBF.19 This study aims to assess the effect of the developed EBF module on the awareness of the prospective bride and groom on EBF. This study is expected to raise the awareness in public related to EBF.

#### **METHODS**

This research was conducted Tarakan city over the area of 20.80 km<sup>2</sup>. Tarakan city has a population of 280,215 people in 2020. Every year more than 1000 pairs of prospective brides and grooms receive prenuptial and premarriage guidance from the Office of the Ministry of Religion of Tarakan city. Research was done using a quasi experimental design. This approach provided a pretest and posttest using control as treatment applied. The sample in this study were 100 respondents with the specification in detail: male and female groups independently were given the developed BFE modules

and the selected respondents were 50 respondents (25 male and 25 female) and there were female respondents in the group listening to lectures from researchers (each group of 25 respondents). This research was conducted at the ministry of Religion's office from March to June 2019. The respondents' awareness was measured using a questionnaire. Questionnaires were divided into two types. The first type was to measures the awareness of male respondents with a total of 6 items of statements using the Gutman scale. The first part of the provision was: if the answer is correct, then the point is 1 and if it is wrong, then the point is 0 with a total value of 6 points. The second type was to measure the awareness of female respondents with 12 statement items using the Gutman scale. The first part of the provision was: if the answer is correct, then the point is 1 and if it is wrong, then the point is 0. The data were analyzed using a computer and statistical test with Paired samples t test interpretation of significance if p<0.05.

#### **RESULTS**

The sample characteristics can be seen in (Table 1). The study found that male respondents in the reading module group were generally aged 25-30 years old (52%) while the listening group were generally aged 20-24 years old and 25-30 years old (both were 32%). Female respondents in the reading module group and listening to the lectures group were generally aged 25-29 years (40%) and 20-24 years (56%). Male respondents in the reading module group and listening to lectures were varied over educational background from high school graduates (36%) and elementary school graduates (68%). Female respondents in the group reading modules and listening to the lectures were also varied over educational background from high school graduates (52%) and elementary school graduates (60%). Male respondents in the reading module group and listening to the lectures were generally selfemployed (76% and 88%). The occupation of the female respondents in the reading module group was generally self-employed (52%) and the group listening to lectures generally did not work (44%). The complete characteristics can be seen in (Table 1).

Age (year	Male (reading module)		Male (listening to the lecture)		Female (reading module)		Female (listening to the lecture)		
old)	N	%	N	%	N	<b>%</b>	N	%	
<20	1	4			1	4	1	4	
20-24	3	12	8	32	9	36	14	56	
25-29	13	52	8	32	10	40	5	20	
30-34	4	16	4	16	2	8	4	16	
>35	4	16	5	20	3	12	1	4	
Total	25	100	25	100	25	100	25	100	

**Table 1: Respondents' characteristics.** 

The knowledge of male respondents in the reading module group before and after the intervention is presented in (Table 2). The knowledge of male respondents in the reading module group before the intervention with an average value (M=1.64±SD=0.95) with changes after the intervention (M=4.24±SD=0.59) the change in knowledge of male respondents in the reading module group before and after the intervention with a significant statistical test with a value of p=0.00 so

that p<0.05 in (Table 2) provides an overview of changes in knowledge of male respondents in the control group with lecture listening interventions From the researchers, it was seen that knowledge before the intervention (M=1.24 $\pm$ SD=1.36) with changes after the intervention (M=4.00 $\pm$ SD=1.25) with a value of p=0.00 so that after the statistical test it was said to be significant because the value of p<0.05.

Table 2: The awareness of male respondents in groups.

Statement	Reading module			Listening to the lecture		
Statement	Before	After	P value	Before	After	P value
Ever heard over EBF terminology	0.08	0.72	0.000	0.16	0.64	0.000
The definition of EBF	0.28	0.80	0.000	0.32	0.76	0.000
The EBF is enough for infant	0.52	0.88	0.001	0.20	0.72	0.000
Formula milk causes diarrhea	0.76	0.32	0.001	0.28	0.72	0.001
The benefits of EBF	0.16	0.64	0.000	0.16	0.64	0.000
Family planning effect on EBF production	0.16	0.56	0.002	0.12	0.52	0.002
Total of statement score	1.64	4.24	0.000	1.24	4.00	0.000

p<0.05 in t test using paired samples test.

There has been a lot of scientific evidence found and revealed by health researchers about the benefits of EBF for both mothers and children before and after the period. Various approaches and interventions have been made to increase EBF coverage. Research is generally focused on pregnant women, their parents, their husbands, and young women due to the cases of EBF in many area along with the benefits. 17,19 The results of this study found that the knowledge of both male and female respondents on exclusive breastfeeding in Tarakan city is still low. This is in line with Aris's research in November 2015 and May 2016.<sup>17</sup> Based on the results of the questionnaire analysis of 6 statement items for male respondents in both the reading module intervention group and the listening to the lecture intervention group (1.64 and 1.24) after being given the intervention in the form of reading EBF module and listening to EBF lectures from researchers, there was a change in respondents' awareness to go above average (4.24 and 4.00) so that the intervention provision was statistically significant with a value of p=0.000 less than p<0.05. The results of statistical tests in all groups both in reading modules and listening to the lectures from male and female respondents showed a higher percentage of increase in awareness in the reading module group. The findings in this study for the prospective bride and groom have not been exposed to information about the benefits of EBF. This can be seen in the statistical data for male respondents in the reading module group and male respondents in the group listening to the lectures group who got only 0.16 of them said they knew the benefits of EBF. Meanwhile, female respondents in the reading module group were only 0.48 and the group listening to the lectures group was only 0.20 out of total respondents knowing the benefits of exclusive breastfeeding. It was lower in the group listening to the lectures from female respondents. The benefits of breastfeeding were varied such as being contraception, maintaining good relationship between children and mothers, increasing intelligence and preventing obesity, preventing breast cancer and preventing diabetes millitus type 2 while accelerating invulsion and preventing infection in infants. This finding is different from TekaBisa and it is understandable because this study included respondents to the prospective brides and grooms who were undergoing prenuptial and premarriage guidance at the office while Teka was only to the mothers. The results of this study indicated that respondents have not become the target of government policies to accelerate the increase in the achievement of EBF.

The awareness of female respondents in the reading module group before and after the intervention is presented in (Table 3). The awareness of female respondents in the reading module group before the intervention with an average value was (M=5.04±SD=2.42) with changes after the intervention was  $(M=10.00\pm SD=1.68)$ . Changes in the female respondents' awareness in the reading module group before and after the intervention with a significant statistical test with a value of p is 0.000 (p=0.000) so that p<0.05. An overview of changes in the female respondents' awareness in the control group with the intervention of listening to the lectures from the researchers with (M=3.84±SD=2.71) with changes after the intervention was (M=8.68±SD=2.11) with a value of p=0.000 so that after the statistical test it is said that the change in respondents' awareness was significant because the p<0.05 (Table 3). Statistical results based on the findings in this study showed that female respondents in both groups of 12 statement items have no more than (5.04 and 3.84) of the answer accuracy before being given the intervention either in the reading module group or listening to the lecture from the researcher groups about EBF.

Table 3: The awareness of female respondents in groups.

Statement	Reading module			Listening to the lecture		
Statement	Before	After	P value	After	Before	P value
Ever heard over EBF terminology	0.40	0.84	0.001	0.32	0.68	0.001
The definition of EBF	0.56	0.92	0.004	0.60	0.92	0.003
The EBF is enough for infant	0.52	0.88	0.001	0.48	0.84	0.001
Formula milk causes diarrhea	0.40	0.80	0.001	0.36	0.76	0.001
The benefits of EBF	0.48	0.92	0.001	0.20	0.76	0.000
Family planning effect on EBF production	0.50	0.72	0.003	0.36	0.84	0.000
Breast care	0.36	0.80	0.000	0.28	0.72	0.002
The effect of EBF in children	0.36	0.84	0.000	0.20	0.56	0.001
Massage as treatment for less EBF production	0.32	0.88	0.000	0.24	0.52	0.005
Nipples problem	0.12	0.64	0.000	0.08	0.36	0.005
The definition of mastitis	0.60	0.92	0.003	0.48	0.92	0.001
Information related to BF in Al-Qur'an	0.52	0.88	0.001	0.32	0.76	0.000
Total of statement score	5.04	10.00	0.000	3.84	8.68	0.000

p<0.05 in t test using paired samples test.

The awareness of female respondents after the intervention was changed in the form of reading modules and listening to the lectures from researchers. It was seen that the change in female respondents' awareness was above average (10.00 and 8.68) so that the intervention was statistically significant with a value of p=0.000 smaller than p<0.05. It can be said that the intervention brought an influence to the subjects.

### **DISCUSSION**

Health education in the form of giving developed written or digital modules is a process of change due to awareness from within individuals, groups, or communities.<sup>23</sup> Changes in human attributes i.e. attitude, knowledge, and awareness through health education interventions have been carried out by many experts to increase the achievement of EBF.<sup>24</sup> The changes in respondents' awareness statistically in this study, both the reading module group and the listening to the lecture from the researchers group, were all meaningful so that it could be understood well by the respondents. The respondents understood the material and absorbed the material given. Barennes research states that health education interventions have a positive impact on the practice of EBF during the intervention.<sup>25</sup> The results of statistical tests in the group reading module, both men and women, showed an increase in knowledge so that it could be interpreted that the module could be used as an instrument in increasing knowledge of EBF and in line with research conducted by Chola in 2015, although Chola applied it to a cadre group, and Zeller given to adolescents, but continued to increase knowledge of EBF in prospective couple to start a family. 19,26

The findings of Shalaby about 21% of mothers received information on EBF from health education with Gyampoh.<sup>2</sup> The findings of this study are in line with

Gyampoh, stating that health education is the main source of information related to EBF, which is reflected in male and female respondents who only know about EBF after reading the module and listening to the lecture of EBF material from the researcher in intervention. <sup>22</sup> It happened as considering that respondents have not been motivated to learn things that are tied to ASI because they do not have children and are now receiving prenuptial and premarriage guidance.

The strength of this research is because it focused on the respondents from the prospective brides and grooms who are currently receiving prenuptial and premarriage guidance. This study found that the EBF module developed in this study in the form of a pocket book module was understood by respondents. The module came with the dialogue packaging between mothers and young children so that it is easy to learn by the respondents. This study can help researchers to uncover the problem of increasing the coverage of EBF at an early stage by providing awareness to prospective brides and grooms about the benefits of EBF.

#### Limitations

Limitation of this study is related to the number of respondents that is limited with sampling using total sampling.

#### **CONCLUSION**

As a conclusion, health education that has been done by giving prospective brides and grooms as research respondents the EBF modules in reading and listening to the lecture group was able to increase their awareness toward EBF. It is recommended that EBF material be given to the prospective brides and grooms before marriage so that they were aware to the case of children' development by the effect of EBF.

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