Small group classes with pregnancy cadres (kekasih) can improve knowledge and attitudes about exclusive breastfeeding among third-trimester pregnant women on the remote Island of Enggano, Bengkulu Province

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ABSTRACT

**Background:** One of the government programs that focuses on the first 1000 days of life is exclusive breastfeeding for infants aged 0-6 months, but there is often a failure of exclusive breastfeeding at the age of 0-3 days due to pre-lactal feeding, so education during pregnancy is needed to improve the knowledge and attitudes of pregnant women through KEKASIHI (Small Group of Cadres with Pregnant Women) classes. **Objectives:** This study aims to determine the effectiveness of KEKASIH classes on knowledge and attitudes of pregnant women trimester III in remote areas of Enggano Island, Bengkulu Province in 2023. **Methods:** Quasi-experimental research design with pre- and post-test and control group. Intervention in the form of KEKASIH class, which is a modified class for pregnant women divided into small groups with cadres as facilitators. Independent variables were KEKASIH class, dependent variables were knowledge and attitude. External variables are age, parity, education, distance of pregnancy, employment. The sample was trimester III pregnant women a total of 50 people consisting of the treatrimester group in remote areas of Enggano Island, the control group is pregnant women who receive conventional health promotion. **Results:** The results of the study showed that there was a difference in the mean knowledge score before and after exclusive breastfeeding education through KEKASIH class from 27.36 to 49.04, p=0.00. There is no difference in the mean attitude score before and after exclusive breastfeeding education in the control group from 28.16 to 28.96 p=0.00. **Conclusions:** KEKASIH Class is more effective in improving mothers' knowledge and attitudes about exclusive breastfeeding with a value of p=0.00. Educational factors affect mothers' knowledge, but gestational distance and parity affect mothers' attitudes about exclusive breastfeeding. **KEYWORD:** attitude; class; KEKASIH; knowledge; pregnancy

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INTRODUCTION

Stunting is a form of stunted growth due to the accumulation of nutritional inadequacies from pregnancy to 24 months of age. The 2018 Riskesdas results show that the incidence of stunting in Indonesia is 30.8%, in Bengkulu Province it is 27.5%, with the most stunting loci in North Bengkulu Regency, one of which is Enggano Island. The SSGI scores in 2021 have decreased by 24.4 \(^{(1)}\). The Scaling-Up Nutrition Movement program focuses on the first 1000 days of life with exclusive breastfeeding for infants aged 0-6 months \(^{(2)}\).

The practice of exclusive breastfeeding has a significant effect on the incidence of stunting \(^{(3)}\), but evidence suggests that pralactic feeding is a factor that significantly influences the failure of exclusive breastfeeding. Pralactic feeding practices still occur in many countries, including Indonesia, where pralactic feeding is believed to be the norm due to cultural beliefs or family influences rather than health or nutritional concerns.\(^{(4)}\)

Lack of knowledge about breastfeeding and misconceptions about breastfeeding are also associated with a nine times higher likelihood of prelactal feeding.\(^{(5)}\) Therefore, it is necessary to educate pregnant women about the benefits of exclusive breastfeeding to reduce the burden of malnutrition on the country.\(^{(3)}\) Breastfeeding education and promotion by health care providers and mentoring in antenatal classes are needed.\(^{(4)}\).

The implementation of antenatal education in Indonesia in the form of large classes, with midwives as facilitators.\(^{(6)}\) However, it has limitations for areas with low health worker resistance, poor infrastructure, remote, archipelagic, outermost areas such as Enggano Island in Bengkulu Province \(^{(7–9)}\). Implementation of antenatal education in small groups, remote antenatal education has proven effective for remote communities, however, electricity supply ends at 12 noon, causing disruption of internet access on Enggano Island \(^{(9–11)}\).

Antenatal education in Indonesia is delivered in large classes with midwives as facilitators \(^{(6)}\). However, this has limitations for areas with low health worker resistance, poor infrastructure, remote areas, islands and outermost areas such as Enggano Island in Bengkulu Province \(^{(7–9)}\). Delivering antenatal education in small groups, remote antenatal education, has proven effective for remote communities, but the electricity supply ends at 12 noon, causing disruption to internet access on Enggano Island.
Enggano Island (9-11).

Initial surveys conducted by the researchers showed that limited internet access and low numbers of health workers meant that antenatal classes, which should ideally be held monthly, were not being held on Enggano Island, which is likely to lead to low levels of knowledge and promote negative attitudes towards pregnant women’s health knowledge, including exclusive breastfeeding. As a result, 85% of infants are undernourished and 15% of children under five are malnourished, leading to stunting. As a result, 85% of infants are pralactate fed and 15% of children under the age of five are malnourished, the site of stunting.

Therefore, it is necessary to educate mothers in small groups of cadres together with pregnant women, abbreviated as KEKASIH, by utilizing the social capital of cadres in remote communities, this is because cadres are important and needed in educating target groups (12–16). This study aims to determine the effectiveness of KEKASIH class on knowledge and attitudes of pregnant women trimester III in remote areas of Enggano Island, Bengkulu Province in 2023.

MATERIALS AND METHODS
Quasi-experimental research design with pre- and post-test and control group. The treatriesterent group were pregnant women who received health promotion through the KEKASIH class, which stands for Small Group Kader Together with Pregnant Women, a modified class for pregnant women divided into small groups with cadres as facilitators. The control group was pregnant women who received conventional health promotion. The KEKASIH class intervention was conducted 3 times during the third trimester of pregnancy at 25-36 weeks' gestation. The health promotion provided in the KEKASIH class included materials on transition to parenthood, couple communication, childbirth, breastfeeding practices and newborn care, exclusive breastfeeding and proper breastfeeding practices. The health promotion media used are modules and leaflets developed on the basis of the needs assessment.

The health promotion methods used in the KEKASIH class were lectures, question and answer sessions, brainstorming and demonstrations conducted by cadres as facilitators. Before providing health promotion to pregnant women, the facilitator cadres were trained by the research team on relevant materials (17).

Before the intervention, a pre-test of the mother's knowledge and attitude towards exclusive breastfeeding was carried out using a questionnaire, while
the post-test measurement was carried out at 36 weeks' gestation, taking into account that 37 weeks' gestation was at term, so the mother's likelihood of giving birth was high. The research instrument was in the form of questions about knowledge and attitudes towards exclusive breastfeeding, taken from the Knowledge and Attitudes Towards Exclusive Breastfeeding Questionnaire (17,18), modified by the researcher.

The test of this instrument was conducted on 15 respondents of pregnant women in the area of Babatan Health Centre, Seluma Regency. Each item of this questionnaire uses item analysis, which correlates the score of each item with the total score, which is the sum of the scores of each item. Based on the results of the product moment test, the r table value is 0.36, the results of the calculated r score of all question items are > 0.36, so all question items on the questionnaire are declared valid. The reliability test of this instrument shows a Cronbach Alpha value of 0.68> 0.60, indicating a valid instrument.

The independent variable was the KEKASIH class, and the dependent variable was knowledge and attitudes about exclusive breastfeeding. The external variables were age, parity, education, employment and parity. The study was conducted in Enggano Health Center area in North Bengkulu Regency in January-October 2023. The sample was trimester III pregnant women with a total of 50 people consisting of experimental and control groups. Sample selected through purposive sampling with inclusion criteria were pregnant women willing to participate in the study until completion, while exclusion criteria were pregnant women with a history of poor obstetric care or with pregnancy complications and co-morbidities (19).

RESULTS AND DISCUSSION

RESULTS

The Table 1 above shows that 38% of pregnant women with trimester on Enggano Island are at risk. The table above also shows that 34% of pregnant women have primiparous parity and 10% have grande multiparous parity. The above table also shows that 40% of the pregnant women are primigravida. The educational level of pregnant women is 52% basic education and based on the employment status, 64% of pregnant women do not work.

Table 2 shows that there is a difference in the mean score of knowledge before and after receiving education on exclusive breastfeeding through the Beloved class from 6.72 to
Table 1. Frequency distribution of respondents characteristics based on breastfeeding status, age, parity, pregnancy distance, education and occupation in remote areas of Enggano Island in 2023

<table>
<thead>
<tr>
<th>Variable</th>
<th>Eksperiment</th>
<th>Control</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At risk</td>
<td>7</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>Not at risk</td>
<td>18</td>
<td>72</td>
<td>13</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primiparous</td>
<td>11</td>
<td>44</td>
<td>6</td>
</tr>
<tr>
<td>Multiparous</td>
<td>13</td>
<td>52</td>
<td>15</td>
</tr>
<tr>
<td>Grandmultipara</td>
<td>1</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Pregnancy Spacing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primigravida</td>
<td>11</td>
<td>44</td>
<td>6</td>
</tr>
<tr>
<td>&lt; 2 Years</td>
<td>2</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>2 Years</td>
<td>7</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>&gt;5 Years</td>
<td>5</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>10</td>
<td>40</td>
<td>16</td>
</tr>
<tr>
<td>Secondary/Higher</td>
<td>15</td>
<td>60</td>
<td>9</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>2</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Not Working</td>
<td>23</td>
<td>92</td>
<td>9</td>
</tr>
</tbody>
</table>

16.56, mean difference 9.84, p value = 0.00. There is a difference in the mean score of knowledge before and after exclusive breastfeeding education in the control group in trimester III pregnant women from 6.80 to 8.60, mean difference of 1.80, p value = 0.00. There is no difference in the mean score of attitude before and after being given education about exclusive breastfeeding in the control group in trimester pregnant women from 28.16 to 28.96, mean difference 0.80, p value = 0.00.

Table 3. The Effect of KEKASIH class on knowledge, attitudes of pregnant women about exclusive breastfeeding in remote areas of Enggano Island, Bengkulu Province, 2023

<table>
<thead>
<tr>
<th>Variable</th>
<th>Knowledge coefficient</th>
<th>p value*</th>
<th>Attitude coefficient</th>
<th>p value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEKASIH Class</td>
<td>0.85</td>
<td>0.00*</td>
<td>0.75</td>
<td>0.00*</td>
</tr>
<tr>
<td>Age</td>
<td>0.16</td>
<td>0.26</td>
<td>0.22</td>
<td>0.11</td>
</tr>
<tr>
<td>Parity</td>
<td>0.13</td>
<td>0.34</td>
<td>0.32</td>
<td>0.02*</td>
</tr>
<tr>
<td>Pregnancy Spacing</td>
<td>0.10</td>
<td>0.46</td>
<td>0.30</td>
<td>0.03*</td>
</tr>
<tr>
<td>Education</td>
<td>0.30</td>
<td>0.02*</td>
<td>0.25</td>
<td>0.08</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.09</td>
<td>0.53</td>
<td>0.07</td>
<td>0.60</td>
</tr>
</tbody>
</table>

*Spearman Rank Test
The results of multivariate analysis in Table 4 show that the Beloved Class has a significant effect on the knowledge about exclusive breastfeeding in trimester pregnant women with a value of $p=0.00$, coefficient correlation 0.85, which means that 85% of the pregnant women's knowledge about exclusive breastfeeding is influenced by the Beloved Class education, the rest is influenced by other factors. In addition, Table 4 also shows that the Beloved Class affects the positive attitude of pregnant women toward exclusive breastfeeding with a $p$-value of 0.00, coefficient correlation 0.75, which means that 85% of the positive attitude of pregnant women toward exclusive breastfeeding can be explained by the Beloved Class education, the rest is explained by other factors. In addition, Table 4 also shows that the Beloved Class affects the positive attitude of pregnant women toward exclusive breastfeeding with a $p$-value of 0.00, coefficient correlation 0.75, which means that 85% of the positive attitude of pregnant women toward exclusive breastfeeding can be explained by the Beloved Class education, the rest is explained by other factors.

Education affects mothers' knowledge about exclusive breastfeeding with a value of $p=0.00$, coefficient correlation 0.30, which means that 30% of mothers' knowledge is explained by educational factors, the rest by other factors. Table 4 also shows that the parity factor affects the mothers' attitude towards exclusive breastfeeding with a value of $p=0.02$, coefficient correlation 0.32. This means that 46% of the mother's attitude is explained by the parity factor, the rest by other factors. Most of the high-risk pregnant women have age $\leq 20$ years and $\geq 35$ years, namely 33 people (53.2%) and age 20 - 35 years amounted to 29 people (46.8%) pregnant women.

**DISCUSSION**

This study found that almost all trimester III pregnant women on Enggano Island were at risk. This is consistent with previous findings that 53.2% of pregnant women are $\leq 20$ or $\geq 35$ years of age. Pregnant women in high-risk groups need education and assistance in pregnancy care, labor and delivery (20).

This study also found that almost some pregnant women with primiparous parity and 10% with grande multiparous parity are also in the risk group, therefore continuous care services must be provided in this group to prevent complications. Previous findings also found primiparous pregnant women up to 48.77%. Primiparity is associated with unpreparedness for pregnancy and childbirth and lack of ability to cope with complications, while multiparity is at risk of health problems due to too frequent childbirth such as malnutrition, pre-
eclampsia, hemorrhage and premature rupture of membranes. Therefore, the at-risk parity group needs full attention in health services (21,22).

This study found that a small proportion of pregnant women with <2 years between pregnancies were associated with willingness to breastfeed. Pregnancies that are too close together are a risk group for breastfeeding and nutritional status. The educational level of pregnant women was 52% with primary education, this finding supports previous findings that educational level affects the ability to absorb information and shows the importance of the need for health education on pregnancy care, childbirth, including exclusive breastfeeding among mothers with low education (23). In terms of employment status, 64% of the pregnant women in this study were not working. Previous research also found that 76% of pregnant women were homemakers, indicating the willingness of pregnant women to receive education in the Beloved Class without the distraction of work (24).

The results of this study showed that there was an effect of KEKASIH class education on mothers’ knowledge of exclusive breastfeeding. The results of this study support previous findings that the results of previous studies found that the implementation of pregnant women’s classes in small groups, proved significant to the knowledge of pregnant women about infant care and breastfeeding. Education of pregnant women in small groups is a population-based health promotion method and a recommended approach for reaching hard-to-reach groups (10).

In this study, education was provided in small groups by cadres as facilitators of the mothers’ class, allowing for thorough and continuous support. This is consistent with previous research that has shown that empowering cadres to provide education on breastfeeding and MP ASI can improve the knowledge and attitudes of pregnant women in remote areas (8).

The increase in knowledge in this study may also be due to the media and methods used. In this study, education was provided through lectures, discussions, questions and answers, brainstorming, and practice of correct breastfeeding techniques. In this study, cadres practiced using a phantom and then were followed by pregnant women. The education is delivered interactively in small groups of 5-6 pregnant women. This method has also been used in previous studies, using interactive discussions, slides, models, examples from breastfeeding studies, videos and demonstrations, with each educational
session lasting 60-90 minutes (25).

The results of this study are consistent with previous findings that prenatal breastfeeding increases knowledge and reduces anxiety about breastfeeding in the postnatal period (26). The results of this study are consistent with previous findings that prenatal breastfeeding improves knowledge and reduces anxiety about breastfeeding in the postnatal period (27). Breastfeeding education in the antenatal period can increase mothers' knowledge to 28% moderate, 39.3% good, 25.8% very good and only 7% have poor knowledge (28).

This study also used modules and pamphlets that were prepared based on a needs assessment and included guidelines for practicing breastfeeding techniques. This finding is consistent with previous research showing that the use of educational media such as booklets in breastfeeding education can improve pregnant women's knowledge about exclusive breastfeeding (29).

In this study, learning activities were conducted through short oral presentations by the facilitator, individual group exercises, short film presentations, discussion and reflection. This finding is consistent with previous research. Class materials included transition to parenthood, couple communication, childbirth, breastfeeding practices and newborn care (30).

Pregnant women were given small exercises to prepare for each session, and each session lasted 2.5 hours (10). These findings support previous research that suggests that a variety of methods and media should be used to improve pregnant women's knowledge of breastfeeding practices (31,32).

This study also found that KEKASIH classroom education was effective in improving pregnant women's positive attitudes toward exclusive breastfeeding. This result is in line with previous findings that education can increase positive attitudes and a strong desire for exclusive breastfeeding (28). Antenatal breastfeeding education increased positive intentions towards exclusive breastfeeding by 80.8%, but these positive intentions were also related to previous knowledge about breastfeeding, maternal age and willingness to listen to experts (30). Antenatal classes are a means of collaborative health learning for pregnant women in the form of face-to-face, group-based classes that aim to improve mothers' knowledge and skills related to pregnancy, antenatal care, childbirth, postpartum care, newborn care, myths, infectious diseases, and birth certificates (5). There are various methods of teaching pregnant women that have been developed today, but the selection of the method used must be tailored to the
target group for it (33). Other studies have also shown that prenatal education for remote communities has proven to be effective in increasing breastfeeding initiation and success, as well as increasing pregnant women's participation in prenatal programs in rural or remote areas (15,19).

CONCLUSION AND RECOMMENDATION

The results showed that there was a difference in the mean knowledge score before and after receiving exclusive breastfeeding education through the Beloved class from 27.36 to 49.04, p=0.00. There is no difference in the mean attitude score before and after exclusive breastfeeding education in the control group from 28.16 to 28.96 p=0.00. Beloved Class is more effective in improving mothers' knowledge and attitudes about exclusive breastfeeding with a value of p=0.00. Educational factors affect the mother's knowledge, but gestational age and parity affect the mother's attitude towards exclusive breastfeeding. It is recommended that health care providers provide breastfeeding education during the antenatal period in a structured, small group setting, using cadres as facilitators.

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