

Education on Exclusive Breastfeeding for Third-Trimester Pregnant Women As An Effort To Support Increased Exclusive Breastfeeding Coverage In The Onolalu Community Health Center Working Area, South Nias Regency

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ABSTRACT

The coverage of exclusive breastfeeding in the working area of Onolalu Community Health Center remains low, at approximately 20%. One of the contributing factors is inadequate maternal knowledge regarding the importance of exclusive breastfeeding and breastfeeding readiness. This community service activity aimed to improve the knowledge and readiness of third-trimester pregnant women regarding exclusive breastfeeding through health education. The activity was conducted at the Onolalu Community Health Center, South Nias Regency, in June 2026, involving 32 third-trimester pregnant women. A one-group pre-test and post-test design was used. Health education was delivered through interactive lectures, discussions, and question-and-answer sessions covering the definition and benefits of exclusive breastfeeding, Early Initiation of Breastfeeding (EIBF), proper breastfeeding techniques, and readiness to practice exclusive breastfeeding. Participants' knowledge was assessed using questionnaires administered before and after the educational intervention. The results showed that the mean knowledge score increased from 51.88 ± 13.06 in the pre-test to 95.78 ± 2.87 in the post-test, representing an increase of 43.90 points or 84.62%. These findings indicate that interactive health education can improve the knowledge of third-trimester pregnant women regarding exclusive breastfeeding. Continuous education on exclusive breastfeeding through antenatal care, pregnancy classes, and integrated health post activities is recommended as an effort to support increased exclusive breastfeeding coverage in the working area of Onolalu Community Health Center.

Keywords : Exclusive Breastfeeding, Health Education, Pregnant Women, Third Trimester

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INTRODUCTION

Breast milk is the best source of nutrition for infants, recommended by the WHO for exclusive feeding during the first six months of life. Exclusive breastfeeding is proven to benefit infants by boosting immunity, reducing the risk of infection, and supporting brain development. For mothers, breastfeeding can accelerate uterine involution, lower the risk of breast and ovarian cancers, and strengthen the emotional bond with the infant (WHO, 2023; Miara et al., 2024).

However, global exclusive breastfeeding coverage remains low—approximately 48% in 2024—and has not yet met the global target (WHO, 2024). In Indonesia, exclusive breastfeeding coverage reached 69.08% in 2024, falling short of the national target of 80% (Indonesian Ministry of Health, 2024). In North Sumatra, coverage reached 57.27%, whereas in South Nias Regency, it was only 43.02%. Meanwhile, within the working area of the Onolalu Community Health Center (Puskesmas), exclusive breastfeeding coverage was only around 20% (North Sumatra Health Profile, 2024; Onolalu Puskesmas Data, 2025).

Low exclusive breastfeeding coverage is influenced by various factors, particularly maternal knowledge, family support, culture, and the role of healthcare workers. A lack of knowledge can affect a mother's readiness to breastfeed and increase the risk of introducing supplementary foods or drinks before the age of six months (Rahman et al., 2021).

The third trimester of pregnancy is a strategic period for enhancing a mother's readiness to breastfeed. Education regarding exclusive breastfeeding, early initiation of breastfeeding (EIBF), and proper breastfeeding techniques during this period has been shown to improve mothers' knowledge, confidence, and preparedness to practice exclusive breastfeeding (WHO & UNICEF, 2024). Furthermore, this educational activity provides practical benefits by increasing pregnant women's awareness and understanding of optimal breastfeeding practices, strengthening their readiness to exclusively breastfeed after childbirth, and encouraging family support for breastfeeding. Ultimately, these benefits are expected to contribute to improved exclusive breastfeeding practices and increased exclusive breastfeeding coverage in the working area of the Onolalu Community Health Center.

METHODES

This activity constitutes a community service initiative employing a simple quantitative approach—specifically a one-group pre-test and post-test design—to assess changes in the knowledge of third-trimester pregnant women regarding exclusive breastfeeding before and after receiving education on the subject. The activity was conducted at the Onolalu Community Health Center (Puskesmas) in South Nias Regency in June 2026. The target group consisted of 32 third-trimester pregnant women; they were selected because they were in the phase of preparing for childbirth and breastfeeding, making them the most appropriate audience for education on exclusive breastfeeding. All attendees participated in the community service activity.

The intervention consisted of health education on exclusive breastfeeding, covering the definition of exclusive breastfeeding, the benefits of breast milk for both mother and infant, Early Initiation of Breastfeeding (IMD), correct breastfeeding techniques, and readiness to practice exclusive breastfeeding. The education was delivered via an interactive lecture method, incorporating discussions and question-and-answer sessions to enhance participant understanding.

The media used included PowerPoint presentation slides and an LCD projector to facilitate the delivery of material and ensure it was easily understood by participants. Knowledge levels were measured using a pre-test questionnaire administered before the education session and a post-test questionnaire administered after the activity concluded. The pre-test and post-test results were then compared to determine the extent of the increase in the pregnant women's knowledge following the educational intervention.

The community service activity was implemented in three systematic stages: preparation, implementation, and evaluation. During the preparation stage, coordination was carried out with the Onolalu Community Health Center, educational materials were prepared, and the pre-test and post-test questionnaires were finalized. The implementation stage consisted of administering the pre-test, followed by a 60-minute health education session delivered through interactive lectures, discussions, and question-and-answer sessions. Immediately after the educational session, participants completed the post-test. The evaluation stage involved reviewing and comparing the pre-test and post-test results to assess changes in participants' knowledge.

The pre-test and post-test data were analyzed descriptively by calculating the mean scores and the percentage increase in participants' knowledge. The findings were used to evaluate the effectiveness of the educational activity in improving knowledge regarding exclusive breastfeeding.

RESULTS

Table.1 Respondent Characteristics

Characteristics	Category	n	%
Age	<20 years old	8	25,0
	20–35 years old	24	75,0
Education	Elementary School	8	25,0
	Junior High school	10	31,3
	Senior High School	14	43,7
Occupation	Working	32	100,0
	Not working	0	0,0

Source: Primary data, 2026

Based on Table 1.1, most respondents were aged 20–35 years (75.0%), had a high school education level (43.7%), and all respondents were working mothers (100%). These characteristics indicate that the majority of participants were within the healthy reproductive age group and had an adequate educational background to receive education regarding exclusive breastfeeding.

Table.2 Pre-test and Post-test Results of Pregnant Women's Knowledge

Variable	n	Mean	Standard Deviation	Difference	Improvement (%)
Pre-test	32	51.88	13.06	-	-
Post-test	32	95.78	2.87	43.90	84.62

Source: Primary data, 2026

The pre-test results showed that the average knowledge score of pregnant women regarding exclusive breastfeeding before receiving education was 51.88 ± 13.06 . After the health education session, the average knowledge score increased to 95.78 ± 2.87 . An increase of 43.90 points or 84.62% was observed, indicating that health education had a positive

impact on improving the knowledge of third-trimester pregnant women regarding exclusive breastfeeding.



Figure.1 Comparison of Mean Pre-Test and Post-Test Knowledge Scores



Figure. 2 Health education on exclusive breastfeeding for third-trimester pregnant women at the Onolalu Community Health Center, South Nias Regency.

DISCUSSION

The results of this community service activity demonstrated that exclusive breastfeeding education was effective in improving the knowledge of third-trimester pregnant women. The average knowledge score increased from 51.88 in the pre-test to 95.78 after the educational intervention, with an improvement of 43.90 points (84.62%). These findings indicate that delivering information through health education sessions can improve participants' understanding of the importance of exclusive breastfeeding, the benefits of breast milk, and proper breastfeeding techniques.

Most participants were aged 20–35 years (75.0%) and had a high school education level (43.7%). These characteristics supported the process of receiving health information, as individuals in the healthy reproductive age group and those with better educational backgrounds generally have greater ability to understand the information provided. Furthermore, all participants were working mothers, making exclusive breastfeeding education important as preparation for breastfeeding after delivery.

The improvement in participants' knowledge was influenced by the educational methods used, including interactive lectures, discussions, question-and-answer sessions, and supporting media such as PowerPoint presentations and baby mannequins. The combination of these methods and media helped participants understand the material more easily and provided opportunities to clarify information that had not been fully understood. According to the health promotion theory proposed by Green, knowledge is a predisposing factor that plays an important role in shaping health behaviors.

The results of this activity are consistent with a study by Rahman et al. (2021), which showed that health education can improve mothers' knowledge regarding exclusive breastfeeding. In addition, WHO and UNICEF (2024) recommend providing education from the pregnancy period as one of the strategies to improve the success of exclusive breastfeeding.

Although participants' knowledge increased, successful exclusive breastfeeding is also influenced by family support, healthcare providers, and the social environment. Therefore, exclusive breastfeeding education needs to be implemented continuously through antenatal classes, antenatal care services, and integrated health post (Posyandu) activities as an effort to support the improvement of exclusive breastfeeding coverage in the working area of Onolalu Public Health Center.

CONCLUSION

Exclusive breastfeeding education activities provided to third-trimester pregnant women in the working area of Onolalu Public Health Center were proven effective in improving participants' knowledge. The average knowledge score increased from 51.88 before the education session to 95.78 after the intervention, with an improvement of 43.90 points (84.62%). These results indicate that health education through interactive lectures, discussions, and question-and-answer sessions supported by learning media can improve pregnant women's understanding of the importance of exclusive breastfeeding. Similar educational activities are expected to be implemented continuously as an effort to support the improvement of exclusive breastfeeding coverage in the working area of Onolalu Public Health Center.

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