

## ***Empowerment of Pregnant Women Through Education and Training on Breastfeeding Techniques for Breastfeeding Preparation and Exclusive Breastfeeding in Penyengat Olak Village, Muaro Jambi Regency***

### **Pemberdayaan Ibu Hamil Melalui Pendidikan dan Pelatihan Teknik Menyusui untuk Persiapan Menyusui dan Pemberian ASI Eksklusif di Desa Penyengat Olak Kabupaten Muaro Jambi**

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#### **Abstract**

Breast milk is an excellent source of nutrition for infants, with a balanced composition that meets the growth needs of babies. The coverage of exclusive breastfeeding in Indonesia is still low. This community service aims to empower pregnant women through education and training on breastfeeding techniques in preparation for breastfeeding and exclusive breastfeeding in Penyengat Olak Village, Muaro Jambi Regency, in 2024. The community service activities will be carried out from January to October 2024. The implementation method involves empowering pregnant women through education, training, and demonstrations on correct breastfeeding techniques. This community service will also include demonstrations on proper breastfeeding methods. The tools used include educational materials on exclusive breastfeeding and breastfeeding preparation, a module on correct breastfeeding techniques, videos, a laptop, an LCD projector, stationery, and baby demonstration models. This empowerment activity successfully increased the knowledge and skills of pregnant women in Penyengat Olak Village. It is hoped that with this program, mothers can provide exclusive breastfeeding that positively impacts the health of both mothers and babies, as well as raise awareness about the importance of breastfeeding within the community.

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#### **Abstrak**

ASI merupakan sumber nutrisi yang sangat baik bagi bayi, dengan komposisi seimbang yang memenuhi kebutuhan pertumbuhan bayi. Cakupan pemberian ASI eksklusif di Indonesia masih rendah. Pengabdian kepada masyarakat ini bertujuan untuk memberdayakan ibu hamil melalui pendidikan dan pelatihan teknik menyusui dalam rangka persiapan menyusui dan ASI Eksklusif di Desa Penyengat Olak Kabupaten Muaro Jambi pada tahun 2024. Kegiatan pengabdian ini dilaksanakan pada bulan Januari sampai dengan Oktober 2024. Pelaksanaannya Metode ini melibatkan pemberdayaan ibu hamil melalui pendidikan, pelatihan, dan demonstrasi tentang teknik menyusui yang benar. Pengabdian masyarakat ini juga akan diisi dengan demonstrasi cara menyusui yang benar. Alat yang digunakan antara lain materi edukasi ASI eksklusif dan persiapan menyusui, modul teknik menyusui yang benar, video, laptop, LCD proyektor, alat tulis, dan model demonstrasi bayi. Kegiatan pemberdayaan ini berhasil meningkatkan pengetahuan dan keterampilan ibu hamil di Desa Penyengat Olak. Diharapkan dengan adanya program ini, para ibu dapat memberikan ASI eksklusif yang memberikan dampak positif bagi kesehatan ibu dan bayi, serta meningkatkan kesadaran akan pentingnya ASI di masyarakat.

*Keywords:* ASI Eksklusif; Pengabdian Kepada Masyarakat; Bayi; Pengetahuan.

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## 1. Introduction

One of the five strategic objectives, which is broken down into eight strategic targets, in the implementation of health development from 2020 to 2024 is the improvement of maternal and child health and community nutrition, which includes the increase in the coverage of exclusive breastfeeding (Ratnasari et al., 2017).

The coverage of exclusive breastfeeding in Indonesia remains low. According to the 2021 Basic Health Research (RISKESDAS) data, 52.5 percent—meaning only half of the 2.3 million infants under six months—received exclusive breastfeeding in Indonesia, which is a decrease of 12 percent from the figures in 2019. The early breastfeeding initiation rate (IMD) also dropped from 58.2 percent in 2019 to 48.6 percent in 2021 (Department of Health Jambi Province, 2020). In Jambi Province, the coverage of exclusive breastfeeding in 2020 was 65.22%, in 2021 it increased to 71.37%, and in 2022, it only saw a slight increase to 72.68%. Meanwhile, data from Muaro Jambi District in 2021 showed the lowest percentage of infants receiving exclusive breastfeeding compared to other districts in Jambi Province, at 38.9%. In Indonesia, the exclusive breastfeeding coverage in 2021 reached 74.93%, increased to 76.76% in 2022, and slightly decreased to 76.20% in 2023, indicating the need for more intensive support to improve these figures. According to data from the Central Statistics Agency in Jambi Province, the exclusive breastfeeding coverage in 2021 was 71.37%, increased to 72.68% in 2022, and reached 74.14% in 2023. In 2022, the coverage of exclusive breastfeeding in Muaro Jambi District was 45.36% (Dinkes Kota Jambi, 2021).

Early and exclusive breastfeeding is crucial for a child's survival and to protect them from various diseases that they are vulnerable to, which can be fatal, such as diarrhea and pneumonia. Increasing evidence shows that children who are breastfed have higher intelligence test scores. Additionally, they are less likely to experience obesity or being overweight, as well as a lower risk of developing diabetes later in life. Globally, increasing breastfeeding can save more than 820,000 children each year and prevent an additional 20,000 cases of breast cancer in women annually (Batubara, 2016; Pasaribu et al., 2017; Putri et al., 2020).

Exclusive breastfeeding cannot be separated from the breastfeeding process itself. Breastfeeding is a natural process; however, to achieve successful breastfeeding, mothers need knowledge about the correct breastfeeding techniques. These techniques are one of the factors that influence milk production; if breastfeeding is not done properly, it can lead to sore nipples, causing mothers to be reluctant to breastfeed and infants to breastfeed infrequently, which significantly affects milk production stimulation and the success of exclusive breastfeeding. The role of healthcare workers is crucial in educating mothers about proper breastfeeding techniques, especially for community health workers who interact directly with pregnant and postpartum mothers at health posts. This situation inspires us to recognize the importance of the role of community health workers in disseminating information regarding exclusive breastfeeding and proper breastfeeding techniques (Juniman, 2018; Putri et al., 2020).

Breastfeeding with incorrect techniques can lead to issues such as sore nipples and suboptimal milk flow, which in turn affects subsequent milk production and can make infants reluctant to breastfeed. This results in insufficient breast milk for the baby. Conversely, using the correct breastfeeding techniques encourages optimal milk flow, thus achieving successful breastfeeding (Buser et al., 2020; La Aga, 2019).

Mothers who wish to optimize the benefits of breastfeeding for their infants must understand the correct breastfeeding techniques and provide exclusive breastfeeding for the first six months. Often, mothers encounter problems with breastfeeding due to a lack of knowledge about proper techniques, such as how to position the breast during feeding and incorrect latching by the baby, which can lead to sore nipples. Additionally, there are other important factors for mothers to consider besides proper breastfeeding techniques, including maternal nutrition, sufficient rest, and maintaining a calm mindset (Astuti et al., 2019).

Infants who receive exclusive breastfeeding have an IQ (Intelligence Quotient) that is 12.9 points higher compared to those who do not receive breast milk during infancy. Exclusive breastfeeding has been shown to minimize growth disturbances in infants, such as stunting. Stunting is a chronic malnutrition issue caused by inadequate nutrient intake over an extended period, resulting in shorter height compared to age standards. The Indonesian government recommends exclusive breastfeeding for infants aged 0-6 months; after six months, complementary foods can be introduced while continuing breastfeeding until the child is two years old (Cyntia Putri & Puspowati, 2019).

Exclusive breastfeeding, according to Government Regulation No. 33 of 2012, is breast milk provided to infants from birth for six months, without adding or replacing it with other foods or drinks (except for medicines, vitamins, and minerals). During the lactation period, there is an initial breast milk known as colostrum. Colostrum is rich in antibodies and contains high levels of protein that function as immune support and can kill a significant number of pathogens,

making exclusive breastfeeding crucial in preventing infant mortality. Breast milk also contains enzymes that aid absorption without interfering with the infant's intestinal enzymes. These enzymes are not found in formula milk, meaning that food absorption relies on the enzymes in the infant's intestines (Ibrahim et al., 2021).

Failure to provide exclusive breastfeeding can lead to nutrient deficiencies in infants. Babies who do not receive exclusive breastfeeding are at risk of undernutrition, which may subsequently affect their intellectual development and pose a threat to the future human resources in Indonesia. Infants who are not breastfed and are only given formula during their first month of life are at high risk of suffering from malnutrition, diarrhea, allergies, and other infectious diseases (Rahmawati, 2010).

The goal of this community service initiative is to provide education and training on breastfeeding techniques in preparation for breastfeeding and exclusive breastfeeding, so that pregnant mothers will understand and practice proper breastfeeding techniques. This, in turn, aims to increase the coverage of exclusive breastfeeding in Penyengat Olak Village, Jambi Luar Kota District, Muaro Jambi Regency.

## 2. Methods

This community service activity was conducted in Penyengat Olak Village, Muaro Jambi Regency, from February to October 2024. The method of implementation involved empowering pregnant women through education, training, and demonstrations on correct breastfeeding techniques. The community service also included demonstrations on proper breastfeeding methods. The tools used included educational materials on exclusive breastfeeding and breastfeeding preparation, videos, a laptop, an LCD projector, stationery, and baby demonstration models.

The activities took place in Penyengat Olak Village, Muaro Jambi Regency, in 2024. A total of 30 participants were involved, consisting of 13 pregnant women. This community service engaged students and faculty from the Midwifery Study Program. The first activity began with a pretest to assess the respondents' knowledge about breastfeeding techniques and exclusive breastfeeding. Knowledge here refers to a person's understanding of correct breastfeeding techniques and exclusive breastfeeding, including the definition of breast milk, its benefits, types, how to increase milk production, and preparation for breastfeeding, as well as handling any challenges that may arise. The questionnaire consisted of 20 questions measured using the Guttman scale. The respondents' answers were then scored as correct or incorrect, and categorized into good (76%-100%), sufficient (56%-75%), and poor (<56%).

After the pretest, the activity continued with the empowerment of pregnant women through education and training on correct breastfeeding techniques, followed by a posttest with the same questions as the pretest to measure the increase in respondents' knowledge.

The implementation of this community service activity focused on empowering pregnant women through education and training on breastfeeding techniques for breastfeeding preparation and exclusive breastfeeding in Penyengat Olak Village, Muaro Jambi Regency, in 2024.

This activity was carried out in coordination with the Penyengat Olak Health Center, particularly with the village midwife. The stages of the activity are as follows:

- 1) Preparation and Planning Stages
  - a. Conducting an initial survey and advocacy with community leaders, the village head, village midwife, and Posyandu cadres.
  - b. Collecting data on the target group of pregnant women in their third trimester in Penyengat Olak Village.
- 2) Implementation Stage
  - a. Measuring the knowledge of pregnant women in their third trimester before providing education and training on breastfeeding techniques.
  - b. Conducting education and training on breastfeeding techniques and sending video media to their Android phones for later viewing.
  - c. Measuring the knowledge of pregnant women in their third trimester after receiving education and training on breastfeeding techniques.
- 3) Monitoring and Evaluation Stage
  - a. Monitoring the activities that have been carried out.
  - b. Evaluating the empowerment activities for pregnant women through education and training on breastfeeding techniques for breastfeeding preparation and exclusive breastfeeding.

Partners in this Community Partnership Program include the village midwife, Posyandu cadres, and pregnant women in their third trimester:

- 1) The village midwife participates in gathering pregnant women for the activity and prepares the meeting place at the village hall for the education and training on breastfeeding techniques.
- 2) The Posyandu cadres assist the village midwife in gathering pregnant women for the activity.
- 3) Pregnant women in their third trimester participate in the activities, starting with filling out a questionnaire before the education and training, followed by education and training on breastfeeding techniques, and filling out a questionnaire after the education.

### 3. Result and Discussion

The Community Service activity began with the preparation of a proposal, followed by an initial survey on May 31, 2024, with the village head and village midwife to identify the number of pregnant women in their third trimester in Penyengat Olak Village, Muaro Jambi Regency, in 2024, as well as the location for the community service activities.

The Community Service activity themed "Empowerment of Pregnant Women Through Education and Training on Breastfeeding Techniques for Breastfeeding Preparation and Exclusive Breastfeeding" in Penyengat Olak Village, Muaro Jambi Regency, in 2024 commenced with preparatory stages including coordination, initial surveys, and target data collection, followed by the implementation stage, monitoring, and evaluation.

The Community Service activity was conducted on June 24, 2024, at the Sekernan Village Hall in Muaro Jambi Regency, attended by the village head, village midwife, Posyandu cadres, and 30 pregnant women in their third trimester. The activity was carried out as planned and received support from relevant parties. The activities conducted were as follows:

- a. Measuring the knowledge of pregnant women in their third trimester before providing education and training on breastfeeding techniques for breastfeeding preparation and exclusive breastfeeding one week prior to the educational activities, from June 19 to June 21, 2024.
- b. Conducting education and training on breastfeeding techniques and sending video media to their Android phones for later viewing on June 24, 2024.
- c. Measuring the knowledge of pregnant women in their third trimester after receiving education and training on breastfeeding techniques from July 1 to July 3, 2024.



**Figure 1.** Filling Out the Questionnaire Before Education



**Figure 2.** Implementation of Activities



**Figure 3.** Filling Out the Questionnaire After Education

**Table 1.** Overview of Knowledge of Pregnant Women in Their Third Trimester Before Education and Training on Breastfeeding Techniques for Breastfeeding Preparation and Exclusive Breastfeeding

Knowledge	Distribution	
	f	%
Good	17	56.7
Fair	11	36.7
Not Good	2	6.7

Based on Table 1, it was found that 17 (56.7%) pregnant women in their third trimester had good knowledge before receiving education and training on breastfeeding techniques for breastfeeding preparation and exclusive breastfeeding in Penyangat Olak Village, Muaro Jambi Regency.

**Table 2.** Overview of Knowledge of Pregnant Women in Their Third Trimester Before Education and Training on Breastfeeding Techniques for Breastfeeding Preparation and Exclusive Breastfeeding

Knowledge	Distribution	
	f	%
Good	28	93.3
Fair	2	6.7
Knowledge	0	0

Based on Table 2, it was found that 28 (93.3%) pregnant women in their third trimester had good knowledge after receiving education and training on breastfeeding techniques for breastfeeding preparation and exclusive breastfeeding in Penyangat Olak Village, Muaro Jambi Regency.

Exclusive breastfeeding refers to the practice of providing only breast milk, without any additional foods or drinks, including water, to infants during the first six months of life. This practice is recommended by the World Health Organization (WHO) and the American Academy of Pediatrics (AAP) due to its scientifically proven benefits in supporting the health and development of both infants and mothers. Breast milk provides optimal nutrition for infants, including macronutrients (proteins, fats, and carbohydrates), micronutrients (vitamins and minerals), and immunological components that are not found in formula (Bich et al., 2014).

The benefits of exclusive breastfeeding for infants are extensive and encompass physical health, cognitive development, and immunological protection. Studies show that exclusively breastfed infants have a lower risk of diseases such as diarrhea, respiratory infections, and otitis media. A meta-analysis published by D'Hollander et al. (2023) indicates that exclusive breastfeeding can reduce the risk of infant mortality from infectious diseases, particularly in developing countries.

Additionally, breast milk contains essential fatty acids, especially docosahexaenoic acid (DHA), which plays a crucial role in the development of the brain and retina in infants. Research by Horta (2019) shows that infants who receive exclusive breastfeeding for six months score higher on cognitive development tests compared to those who do not receive exclusive breastfeeding. Breast milk also supports the development of healthy gut microbiota, which is important for digestive health and immune function.

Various international health organizations and governments have made efforts to raise awareness and promote the practice of exclusive breastfeeding. WHO, for instance, has launched the "Ten Steps to Successful Breastfeeding" initiative to be implemented in hospitals to support mothers in exclusively breastfeeding. In Indonesia, the Ministry of Health, through the Exclusive Breastfeeding Program, aims to educate pregnant and breastfeeding mothers about the importance of exclusive breastfeeding and to provide training for healthcare providers to support mothers in breastfeeding.

Community-based interventions, such as breastfeeding support groups, have also proven effective in increasing exclusive breastfeeding rates. Research by Labbok (2012) suggests that community outreach and workplace breastfeeding support groups can enhance the knowledge and skills of breastfeeding mothers.

The community service conducted by the outreach team has yielded positive results in enhancing mothers' knowledge regarding exclusive breastfeeding. It has been shown that using education and training methods effectively increases mothers' understanding and practices surrounding exclusive breastfeeding.

#### **4. Conclusion**

The community service activity successfully achieved its intended goals. Through the education and training provided, the knowledge and skills of pregnant women regarding breastfeeding and the importance of exclusive breastfeeding significantly improved. Participants demonstrated high enthusiasm and actively participated in the practical sessions on breastfeeding techniques. With the tools and materials provided, such as modules and demonstrations, the mothers gained a better understanding of the benefits of exclusive breastfeeding for both baby and maternal health.

It is hoped that the results of this activity will be sustainable, with pregnant women not only applying the knowledge they have gained but also sharing it with their communities. This will create a more supportive environment for breastfeeding mothers and increase awareness of the importance of exclusive breastfeeding within society. Thus, this program not only empowers pregnant women individually but also positively impacts public health as a whole.

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