

# Optimization Of Early Breastfeeding Initiation Education As An Initial Effort To Provide Exclusive Breastfeeding Based On Digital Media At Ngasem Health Center, Kediri Regency

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## ABSTRACT

Early Initiation of breastfeeding is one of the main factors influencing the success of exclusive breastfeeding. The problem found at Ngasem Health Care was a decreased of early breastfeeding initiation's achievement which is under the target of 66%. The aim of this community service is to analyze and optimize strategies at the residency locus. A mixed approach was used in this study, including interviews with public health care management and staff, analysis of documents, and review of relevant literature. The analysis uses fishbone diagrams, the USG (Urgency, Seriousness, Growth) and SWOT analysis (Strength, Weakness, Opportunity, Threat). Based on the analysis results, the priority problem is the obstacles in providing health promotion activities, the health promotion targets who are workers with high mobility, as well as limited availability of health education media (digital and nondigital). The implementation strategy that can be implemented is digital and network development that is integrated with digital promotional media owned by Ngasem Public Health Center, through social and digital media as well as community service activities on October 17, 2024 in the form of a Mini Workshop "SALAM EDU-KASIH" with innovation outcome Tele-Lactation, Instagram Media, Website Media. The health education based on digital media needs to be implemented sustainably and continuously to increase the effectiveness of health promotion program and contribute to better health outcomes for the community it serves.

**Keywords** : Digital Health Technology, Digital Media, Early Breastfeeding Initiation, Exclusive Breastfeeding, Health Education

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## INTRODUCTION

Exclusive breastfeeding is one of the programs of the *World Health Organization* (WHO) and the Government of the Republic of Indonesia which is being intensively promoted by the health sector to reduce child morbidity and mortality rates (Erfiyani, 2020). Early Initiation of Breastfeeding is one of the main factors influencing the success of Exclusive Breastfeeding. *The United Nations Children's Fund* (UNICEF) and the *World Health*

*Organization* (WHO) have recommended the implementation of Early Initiation of Breastfeeding in newborns which can prevent 22% of infant deaths under one month in developing countries. Early Initiation of Breastfeeding plays a role in achieving the *Millennium Development Goals* (MDGs) which have now changed to SDG's, namely helping to reduce poverty, hunger, and child & toddler mortality (WHO, 2018). WHO data in 2021, globally, countries that provide exclusive breastfeeding are only 42% and are targeted to increase to 75% by 2025. In the Middle East and North Africa region, there are around 35 percent of mothers who breastfeed their children. In East Africa and South Africa, there are around 65 percent of mothers who breastfeed their children (World Health Organization and UNICEF, 2021). Data in Indonesia, it is known that in recent years, the coverage of exclusive breastfeeding has increased, around 52.5% in 2021 (Indonesian Nutritional Status Survey, 2022) to 68.6% in 2023 (SSGI). The province with the largest coverage of exclusive breastfeeding for 0-5 months is Jambi Province and the lowest is Gorontalo Province (47.4%), with 21 provinces still below the national coverage. Therefore, acceleration and cross-sectoral cooperation are needed to reduce the gap in exclusive breastfeeding coverage and achieve the target percentage of infants under 6 months receiving exclusive breast milk of 80% in 2024 in accordance with the mandate of Presidential Regulation No. 72 of 2021 concerning the Acceleration of Reduction (Indonesian Health Profile, 2023). Data in East Java Province shows that the coverage of infants receiving exclusive breastfeeding up to the age of 6 months in East Java in 2023 was 72.0%. This coverage has increased insignificantly from 2022, which was 67.4% (East Java Provincial Health Profile 2023). Data on the achievement of exclusive breastfeeding in Kediri Regency in 2020 was 78.9% with the highest achievement of 100% in Kandangan and Kayen Kidul sub-districts (Kediri Regency Health Profile, 2021). Data from the locus of the residency location, Ngasem Health Center, also revealed similar conditions as stated in the previous explanation. In 2023, the real achievement of exclusive breastfeeding was 57%, while in 2024 the real cumulative coverage of 6 months was 67.4%. The real achievement data for Early Initiation of Breastfeeding in 2023 was 57.2%, still under the target of 66%, while in 2024 the real cumulative coverage of 6 months was 56% under the target of 62%. The low provision of breastfeeding was mostly caused by problems experienced by mothers related to knowledge and ability to provide breast milk to children and regional demographics as obstacles to providing health promotion activities, as well as the mobility of targets who are workers and high mobility.

The impact of not initiating early breastfeeding in infants is the failure to breastfeed so that babies do not get colostrum which is useful for reducing infant mortality. If babies are not given Exclusive Breastfeeding, it has a bad impact on babies. The impact of having a risk of death due to diarrhea is 3.94 times greater than babies who receive exclusive breastfeeding (Directorate General of Health Services, Ministry of Health, 2024). The results of the study by Shofiya et al. (2020) showed that IMD is related to the success of the implementation of exclusive breastfeeding. Some articles show that mothers who do Early Initiation of Breastfeeding are more likely to provide exclusive breastfeeding than mothers who do not do IMD. From several articles, the *adjusted odds ratio* (AOR) of IMD to exclusive breastfeeding varies from around 1.36 to 12.33. This is in line with the results of the study by Nuraini, Julia, and Dasuki (2013) which showed that mothers who do Early Initiation of Breastfeeding are almost three times more likely to provide exclusive breastfeeding than mothers who do not do. There are several problems related to breastfeeding that cause children to not be able to receive exclusive breastfeeding for 6 months. One of the problems that occurs is the existence of certain conditions that the mother has that cause limitations in providing breast milk to the child. In this case, working mothers tend to have difficulty in providing exclusive breastfeeding to their

children (Afriyani, 2019). In addition to problems related to working conditions, the limitations of mothers in providing exclusive breastfeeding are also caused by the limited knowledge and information that mothers have regarding breast milk (Abuhammad, 2018). In addition, cognitive factors are also very important factors in forming a person's attitudes and actions. Knowledge based on proper understanding will foster new expected behavior, especially independence in implementing Early Initiation of Breastfeeding because implementing Early Initiation of Breastfeeding is very beneficial for babies (Ministry of Health of the Republic of Indonesia, 2023).

## METHOD

A mixed approach was used in this study, including interviews with public health care management and staff, analysis of documents, and review of relevant literature. The analysis uses fishbone diagrams to identify problems, the USG (Urgency, Seriousness, Growth) method to determine problem priorities and SWOT analysis (Strength, Weakness, Opportunity, Threat) to identify strategies in determining intervention plans. The community service evaluation method used a *perceived usefulness survey* conducted on 17 participants consisting of midwives, person in charge of health promotion program, nutrition program and technology information operators whom are attended the Mini Workshop “SALAM EDU-KASIH” at Ngasem Health Center, Kediri Regency on October 17, 2024.

## RESULTS

Table 1. Essential Public Health Measures Service Performance Assessment

	Achievement 2023	Target	Achievement Jan – August 2024	Target
Early Breastfeeding Initiation	57,2%	66%	56%	62%
Exclusive Breastfeeding	57%	50%	67,4%	50%

Based on table 1 above secondary data from the results of the 6-month cumulative Service Performance Assessment in 2024 conducted by Ngasem Health Center, Kediri Regency, it shows the results related to the low achievement of the Early Breastfeeding Initiation target, which is 56% of the target of 62%. Not much different from the 2023 data, the 1-year cumulative, which is 57.2% of the target of 66%. Meanwhile, data related to the achievement of Exclusive Breastfeeding in general in the work area of the Ngasem Health Center, the achievement of the exclusive breastfeeding target is 57% of the target of 50%. While in 2024 the 6-month cumulative is 67.4% of the target of 50%. Specifically, the achievement of the target for breastfeeding mothers at Ngasem Health Center area has met the annual target. However, it is not significant considering the target percentage of babies under 6 months old receiving exclusive Breastfeeding of 80% in 2024 in accordance with the mandate of Presidential Regulation No. 72 of 2021 concerning the Acceleration of *Stunting Reduction*. It can be concluded that it is necessary to conduct further studies related to this problem and identify solution strategies that can be applied to overcome the problems in the work area of the Ngasem Health Center related to the provision of Early Breastfeeding Initiation.

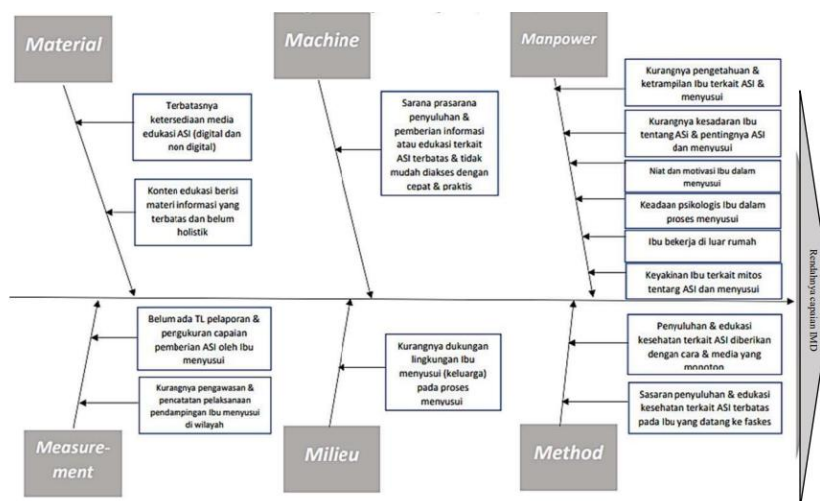


Figure 1. Fishbone diagram

Based on Figure 1 above, the formulation of the problem that can be compiled based on the analysis using a fishbone diagram regarding the low achievement of Early Breastfeeding Initiation and optimization of breastfeeding in the residency locus, Ngasem Health Center, is 1) Lack of knowledge and skills of mothers regarding the importance of Early Breastfeeding Initiation and breastfeeding, 2) Lack of awareness of mothers regarding the importance of Early Breastfeeding Initiation and breastfeeding, 3) Mothers' intentions and motivations in breastfeeding, 4) Mothers' psychological state (stress, fear, anxiety, and confusion) in the breastfeeding process, 5) Mothers working outside the home (high mobility), 6) Mothers' beliefs regarding myths about breast milk and breastfeeding, 7) Facilities and infrastructure for counseling and providing information or education related to breast milk are limited and not easily accessed quickly and practically, 8) Limited availability of breast milk education media (digital and non-digital), 9) Educational content contains limited information material and is not yet holistic, 10) There has been no follow-up to reporting & measuring the achievement of breastfeeding by breastfeeding mothers, 11) Lack of supervision & recording of implementation breastfeeding assistance in the region, 12) Lack of support from the breastfeeding environment (family) in the breastfeeding process, 13) Counseling & health education related to breastfeeding is given in a monotonous manner & media, 14) The target of counseling & health education related to breastfeeding is limited to mothers who come to health facilities. The priority problems that will be implemented in the health promotion intervention program are the problem of low achievement of Early Breastfeeding Initiation targets and optimization of exclusive breastfeeding in mothers at Ngasem Health Center residency area. The WT strategies obtained from the results of the SWOT analysis are 1) Conducting health education and counseling related to breast milk and breastfeeding mothers not only directly by officers, but also indirectly through the help of educational media, which is safer, more practical, faster, more economical, and can be easily accessed, 2) Increasing health promotion efforts, namely by conducting health education to convey information and knowledge related to Early Breastfeeding Initiation and breastfeeding, routinely, comprehensively, and with a wide scope, 3) Creating innovative and integrative educational facilities in various forms of health education media related to breastfeeding by breastfeeding mothers, 4) Including holistic materials, information, and knowledge in order to create innovative and integrative educational materials. 5. Developing digital-based health promotion media. The implementation of the intervention plan is carried out as a form of implementation

of the intervention plan strategy that will be carried out at the residency locus, namely the Ngasem Health Center UPTD. Implementation at the residency locus in this residency is an intervention to strengthen health promotion in the form of developing digital and online media that is integrated with digital promotional media owned by the health center, through social media and other digital media as well as community service activities in the form of a Mini Workshop "SALAM EDU-KASIH" with Midwives, person in charge of health promotion program, nutrition program and technology information operators at Ngasem Health Center, Kediri Regency related to strengthening health promotion in the form of providing holistic health education and information about Early Breastfeeding Initiation and breastfeeding at Ngasem Health Center. The first stage in implementing the intervention is to carry out preparations in the form of orientation and coordination with the Ngasem Health Center regarding identification, analysis of situations and conditions with land supervisor on September 30 - October 1, 2024. The next stage is to conduct an assessment and determination of problem topics with land supervisor on October 8, 2024 (Online), then consult on community service activity intervention strategies on October 11, 2024 (Online). The next stage is the implementation of intervention activities of a Mini Workshop "SALAM EDU-KASIH" with innovation outcome Tele-Lactation, Instagram Media, Website Media. The health education based on digital media needs to be implemented sustainably and continuously to increase the effectiveness of health promotion program and contribute to better health outcomes for the community it serves.

1. Menggunakan media berbasis digital akan memungkinkan saya melakukan promosi kesehatan lebih cepat  
17 jawaban

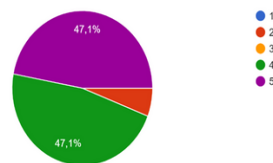


Figure 2. *Perceived Usefulness Diagram*

2. Menggunakan media berbasis digital semakin meningkatkan produktivitas saya sebagai tenaga kesehatan  
17 jawaban

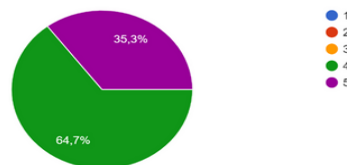


Figure 3. *Perceived Usefulness Diagram*

3. Menggunakan media berbasis digital akan meningkatkan efektivitas saya dalam melakukan promosi kesehatan  
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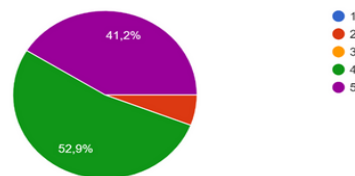


Figure 4. *Perceived Usefulness Diagram*

4. Menggunakan media berbasis digital menjadikan tugas saya sebagai tenaga kesehatan lebih mudah  
17 jawaban

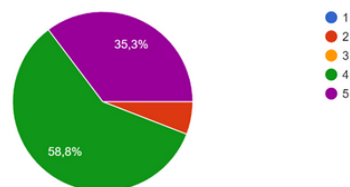


Figure 5. *Perceived Usefulness Diagram*

5. Media berbasis digital sangat bermanfaat dalam mendukung aktivitas tugas saya  
17 jawaban

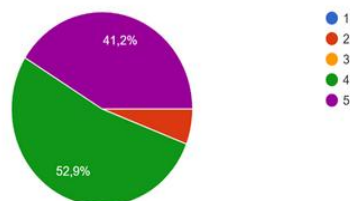


Figure 6. *Perceived Usefulness Diagram*

Based on the figure of diagram above, the results of the perceived usefulness survey conducted on 17 participants of the Mini Workshop on Socialization of 'SALAM EDU-KASIH' Based on Digital Media as an Effort to Strengthen Health Promotion at the UPTD Ngasem Health Center, Kediri Regency, found that almost half believed that using digital-based media makes it possible to carry out health promotion faster (47.1%), most believed that using digital-based media increases productivity as health workers (64.7%), most believed that using digital-based media will increase effectiveness in carrying out health promotion (52.9%), most believed that digital-based media makes the tasks of health workers easier (58.8%), and most believed that digital-based media is very useful for supporting work activities as health workers (52.9%).



## DISCUSSION

Health education, which previously focused more on conventional methods such as seminars, brochures, and lectures, is now increasingly shifting to the digital realm with the existence of health applications, e-learning platforms, and social media as a means of disseminating health information. This transformation opens up new opportunities in providing health information that is more accessible, affordable, and tailored to individual needs (Althubaiti, 2022). The development of digital-based health promotion media in this residency intervention refers to: 1) Regulations regarding health technology are regulated in Article 334 paragraph (1) of the Health Law which states that health technology is organized, produced, distributed, developed, and evaluated through research, development, and assessment to improve Health Resources and Health Efforts. Health technology as referred to in paragraph (1) includes hardware and software. 2) Blue Print "Digital Health Transformation Strategy 2024", the Ministry of Health of the Republic of Indonesia launched the blue print or blueprint "Digital Health Transformation Strategy 2024" together with the United Nations Development Program (UNDP). The transformation strategy that initially focused on health services and reporting for officials, now health services are more focused on health for the wider community 3) Focus on Integration of Primary Health Services The third is to strengthen regional monitoring through digitalization and monitoring through the rural health situation dashboard. The technological era provides many conveniences for the community, but the community does not easily accept all existing technologies, because the process of accepting this new technology requires time and adjustment (Wang N, 2024). Based on the theory developed by Fred Davis (1989) regarding the Technology Acceptance Model (TAM), perceived usefulness, perceived ease of use, and attitude are some of the factors that influence a person's interest in using a technology. According to research conducted by (Ikwanto, 2024) perceived usefulness influences the interest in using applications. Digital platforms are becoming a new means of promoting health and public communication, including health communication. Not only a means of finding health information, but also a means of interacting with each other, for example with other people who have similar health problems. In addition to receiving additional information, users also receive social support for their efforts to improve the quality of their health (Nissinen, 2023).



Figure 7. Community Service Activity Specializing in Maternal and Child Health – Mini Workshop Digital Media-Based "SALAM EDU-KASIH"



Figure 8. Community Service Activity Specializing in Maternal and Child Health – Mini Workshop Digital Media-Based "SALAM EDU-KASIH"

## CONCLUSION

The implementation of health education on Early Breastfeeding Initiation needs to be implemented sustainably, realistically, and periodically as a means of health promotion both at the individual and community levels. The implementation and evaluation of these health education activities need to involve various formal and informal cross-sectors in the field, in order to create synergy and integration in supporting the implementation of an effective health education for the community.

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