

# The effect of family empowerment through education and mentoring on increasing knowledge of exclusive breastfeeding

Kamsatun Kamsatun

Departement of Nursing, Politeknik Kesehatan Kemenkes Bandung, Bandung, Indonesia

## Abstract

Providing appropriate education to breastfeeding mothers and their families is essential to ensure a high level of breastfeeding implementation. The purpose of this study was to analyze the effect of education and mentoring on increasing knowledge about exclusive breastfeeding. This study employed a quasi-experimental design with two groups, one before and one after testing. The research was conducted in one village during March and April 2023, using purposive sampling techniques. Data were collected through questionnaires. Family empowerment interventions in the form of education and mentoring were administered twice with one-week intervals. Data analysis was performed using an independent t-test

with  $p < 0.05$ . The study revealed significant differences in respondents' knowledge after they received educational interventions and guidance. The results showed a p-value of 0.006, which is less than 0.05, indicating a significant difference in respondents' knowledge before and after the intervention. Education and instruction had a positive impact on respondents' knowledge of exclusive breastfeeding. Both the intervention and control groups showed efficacy. Notably, the intervention group displayed a highly significant increase, as evidenced by the significant difference values. In conclusion, family empowerment through education and assistance has a positive effect on increasing knowledge about exclusive breastfeeding. Enhancing family knowledge, skills, and social support can lead to improved optimal breastfeeding practices, enhanced infant health, and reduced infant mortality.

Correspondence: Kamsatun Kamsatun, Departement of Nursing, Politeknik Kesehatan Kemenkes Bandung, Bandung, Indonesia.  
E-mail: kamsatun70@gmail.com

Key word: breast feeding; empowerment; health education; maternal health.

Contributions: KK, conceptualization, data curation, formal analysis, methodology, validation, visualization, writing – original draft, review & editing.

Conflict of interest: the authors declare no conflict of interest.

Patient consent for publication: written informed consent was obtained for anonymized patient information to be published in this article.

Funding: this research did not receive external funding.

Availability of data and materials: all data generated or analyzed during this study are included in this published article.

Received: 13 September 2023.

Accepted: 6 November 2023.

Early access: 16 November 2023.

This work is licensed under a Creative Commons Attribution 4.0 License (by-nc 4.0).

©Copyright: the Author(s), 2023

Licensee PAGEPress, Italy

Healthcare in Low-resource Settings 2023; 11:11793

doi:10.4081/hls.2023.11793

*Publisher's note: all claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.*

## Introduction

The Ministry of Health of Indonesia reports that diarrhea and pneumonia were the most common causes of post neonatal death in 2021.<sup>1</sup> Early initiation of breastfeeding is a practice associated with the promotion of exclusive breastfeeding.<sup>2,3</sup> It is crucial to maintain the baby's life as it likely reduces the incidence of hypothermia. A systematic review reported that initiation of breastfeeding within 24 hours of birth was significantly associated with a reduction in all causes of neonatal mortality.<sup>4</sup>

During the Corona Virus Disease 2019 (COVID-19) pandemic, exclusive breastfeeding rates in Indonesia have declined.<sup>5</sup> This decline can be attributed to limited access to health support, increased stress, uncertainty, a lack of social support, and difficulties in consulting with health workers. Riskesdas data for 2021 reveals that only 52.5 percent of babies aged less than six months are exclusively breastfed. According to a joint national survey conducted with the Ministry of Health of Indonesia, fewer than 50 percent of mothers and caregivers of children under two years of age received breastfeeding counseling services during the pandemic.<sup>6</sup> According to Regulation Number 25 of 2014 from the Minister of Health, which pertains to Health Services for Infants, Toddlers, and Preschoolers, Article 21 states that one of the health services for infants and toddlers is provided through exclusive breastfeeding until the age of 6 months. Exclusive breastfeeding offers extraordinary benefits for optimizing the growth, development, and resilience of low birth weight (LBW) infants.<sup>7</sup> The prevalence of malnutrition, including stunting, was lower in children who were exclusively breastfed compared to those who were not exclusively breastfed.<sup>8</sup> Exclusive breastfeeding is beneficial for the children, for their nutrition and development. Exclusive breastfeeding is a protective force against several infectious diseases, and it also increases their intelligence.<sup>9</sup> Based on a previous study in Jenepono District, the determinants of exclusive breastfeeding in infants aged 0-6 months included giving colostrum, the mother's employment status, family income, the mother's educa-

tion, and her knowledge about the benefits of exclusive breastfeeding.<sup>10</sup> The government of Indonesia has made various efforts to increase exclusive breastfeeding in the community such as education and campaigns to increase awareness of the benefits of exclusive breastfeeding. In addition, policies and regulations that support exclusive breastfeeding, such as prohibiting formula milk advertisements and protecting mothers' rights to breastfeed at work.<sup>11</sup> Previous research show that several obstacles that are often faced in providing exclusive breastfeeding are lack of knowledge and support.<sup>12</sup> Helina's research results show that lack of support and accurate information can make mothers feel insecure or find it difficult to provide exclusive breastfeeding.<sup>13</sup> Some mothers experience difficulties in prioritizing time to provide exclusive breastfeeding, especially if they are working, lack of support at work such as lack of breastfeeding facilities or inadequate time for breastfeeding or expressing breast milk can be an obstacle in exclusive breastfeeding. Some health conditions such as maternal health problems, infections or disorders of breast milk production or baby health problems such as premature birth, difficulty breastfeeding, can become obstacles in exclusive breastfeeding. Factors that influence exclusive breastfeeding are the limited number of health workers. The provision of education about exclusive breastfeeding is not maximal yet, the lack of availability of facilities and infrastructure public and the lack of optimal family support.<sup>14</sup> Lactation education and breastfeeding support can increase the satisfaction of breastfeeding mothers in giving exclusive breastfeeding.<sup>13</sup> Exclusive breastfeeding mentoring for the self-confidence of breastfeeding mothers and families is very important because it will affect the success of carrying out exclusive breastfeeding practices.<sup>15</sup> Mother's milk is an ideal nutrient for babies because it contains nutrients most suitable for the baby's needs and some substances protect against various diseases.<sup>16</sup> Exclusively breastfed babies have a lower risk of developing gastrointestinal diseases and allergies.<sup>17</sup> By giving breast milk, it is three times less likely to be treated with respiratory tract disease compared to formula milk. About 16.7 times less common pneumonia. About 47% less often suffer from diarrhea.<sup>18</sup> Through education and mentoring can overcome this obstacle and enable mothers to provide exclusive breastfeeding successfully and encourage optimal breastfeeding practices for the health of babies and breastfeeding mothers.

**Table 1.** Characteristics of the respondents.

Characteristics	Intervention		Control	
	f	%	f	%
Age				
20-35	15	50	22	73.33
>35	15	50	8	26.66
Parity status				
Primipara	15	50	11	36.66
Multipara	15	50	19	63.33
Education				
Primary (Elementary School - Junior High School)	6	20	8	26.67
Secondary (High School)	21	70	22	73.33
Tertiary (College)	3	10	0	0

**Table 2.** Distribution of respondents' average knowledge before education and mentoring by group.

Groups	Mean	SD	SE	p	N
Intervention	52.67	7.849	1.433	0.867*	30
Control	53.00	7.497	1.369		30

\*Independent T Test (p>0.05).

## Materials and Methods

The research design used was quasi-experimental with a pretest-posttest control group approach, where measurements were taken before and after the intervention in both the intervention and control groups. The research population consisted of all breastfeeding mothers in Gajah Mekar Village, Bandung Regency, West Java, Indonesia. Sampling uses objectives, aligning with predetermined result criteria. The sample size for this study consisted of 60 respondents divided into two groups of breastfeeding mothers. Inclusion criteria include: i) Being able to read and write, ii) willingness to participate as a respondent. Exclusion criteria consist of: i) Breastfeeding mothers who have a history of complications such as bleeding, infection. This intervention is carried out twice with a span of one week. Each intervention was carried out for 30 minutes. Researchers provide education and assistance using modules. The media used is a booklet. The measurement instrument used is a questionnaire in the form of questions related to knowledge consisting of 20 questions. Data analysis used the independent t test. During the research, the researcher pays attention to the ethical principles of information to consent, respect for human rights, beneficence and non-maleficence. The research did not use an ethical review due to limited resources, finances and people

## Results

The study results included characteristics of respondents and knowledge means in breastfeeding mothers

Table 1 shows that most respondents are between the ages of 20-35. The education of most respondents was secondary (high school) in both the intervention and control groups. Most respondents (63.33%) already have one or more children.

Table 2 reveals that the analysis of the average difference in knowledge indicates no significant disparity in the pre-test, with a p-value of 0.8677. A p-value greater than 0.05 suggests equal variances (equality). With an alpha level set at 5%, there was no significant difference in knowledge before the intervention between the intervention group and the control group. This demonstrates

that the two groups were equal before the intervention, and there was no distinction between the intervention group and the control group.

Table 3 analyzes the difference in mean knowledge and demonstrates a significant disparity in the posttests, with a p-value of 0.000. When p-values are less than 0.05, it indicates unequal variances. A p-value less than alpha (0.000), where alpha is set at 5%, can lead to significant variations in mean knowledge between the intervention and control groups following the implementation of the intervention. This suggests that there are substantial differences in respondents' knowledge after they have received educational interventions and guidance."

Table 4 indicates that the intervention group had a mean knowledge level of 52.67 before the test and a knowledge level of 66.00 after the test. We can see that the average difference between pretest and posttest is 13.33. From this, we can conclude that education and instruction influence respondents' knowledge ( $p < \alpha$  (0.05)). Therefore, statistically, respondents' knowledge of exclusive breastfeeding has educational and instructional effects. Both groups showed efficacy in both intervention and control groups. There is a very significant increase in the intervention group, which is very large (significantly significant) in the intervention group as can be seen from the difference values.

## Discussion

The results of this study demonstrate that family empowerment has a positive influence on increasing the knowledge of breastfeeding mothers. Family empowerment, achieved through education and support, enhances knowledge about exclusive breastfeeding. This empowerment can be facilitated through various community education programs and activities that actively involve the family in the learning and development process.<sup>19</sup> Families also receive emotional support and access to adequate health facilities to bolster exclusive breastfeeding practices. With this assistance, it is expected that mothers and families will gain greater confidence and the ability to overcome various obstacles in adhering to exclusive breastfeeding. Therefore, education and support can serve as effective strategies for promoting exclusive breastfeeding within the community.

Education and mentoring can enhance families' capacity to address challenges in exclusive breastfeeding and make informed decisions when issues arise. According to Friedman (2003), one of the family's functions is to provide emotional support for its members, assist nursing mothers in forming their identities, and help

them navigate problems while preventing them stress.<sup>20</sup> Family empowerment is expected to nurture independent families capable of managing and finding solutions to problems. Empowered families exhibit creativity in enhancing the well-being of their members. Family support can enhance comprehension of techniques and ways to address breastfeeding issues, thus improving the practice of exclusive breastfeeding. Family empowerment is an endeavor or process aimed at fostering family awareness, willingness, and ability to recognize, overcome, maintain, protect, and enhance their own well-being. Several studies have shown that family empowerment can enhance family coping and change the behavior of family members.<sup>21</sup>

The study results indicate that involving fathers in the breastfeeding process increases mothers' confidence.<sup>22</sup> Offer support and motivation to encourage mothers to continue exclusive breastfeeding for their babies, which includes emotional and practical assistance, such as tips for increasing milk production and strategies for coping with stress.

The exclusive breastfeeding program, through family empowerment, aims to elevate the rate of exclusive breastfeeding for newborns by delivering information and education about the advantages of exclusive breastfeeding while empowering families to act as advocates for exclusive breastfeeding. Some programs that can be implemented to achieve this objective involve training for pregnant women and expectant mothers on the benefits of exclusive breastfeeding, correct breastfeeding techniques, and addressing potential issues that may arise during breastfeeding.

Through a system of family support and motivation, mothers can gain increased confidence in providing exclusive breastfeeding to their babies. This, in turn, can help enhance the baby's health and strengthen the bond between the mother and the baby within the family. Fathers contribute by providing physical, emotional, and financial support to promote exclusive breastfeeding.<sup>23</sup> To minimize issues for breastfeeding mothers, counseling regarding lactation management should be provided during pregnancy. This way, mothers can approach childbirth without panic.<sup>24</sup> Family empowerment is expected to foster independent families capable of managing and finding solutions to problems. Empowered families demonstrate creativity in enhancing the welfare of their members. With family empowerment, mothers will feel more confident and motivated to provide exclusive breastfeeding for their babies. This will help improve the baby's health and create a harmonious and healthy family environment.<sup>25</sup> By aiding and offering psychological and emotional support to mothers during breastfeeding, which includes counseling services as well as support from the family and the surrounding community.<sup>26</sup>

**Table 3.** Distribution of respondents' average knowledge before education and mentoring by group.

Groups	Mean	SD	SE	p	N
Intervention	66.00	7.240	1.322	0*	30
Control	55.33	6.814	1.244		30

\*Independent T Test ( $p > 0.05$ ).

**Table 4.** Changes in average knowledge value, before and after intervention.

Variable	Intervention (n=30)				Control (n= 30)			
	Pretest	Post test	diff	p	Pretest	Post test	diff	p
Knowledge	52.67	66	13.33	0	53	55.33	2.33	0.006

The knowledge and information component pertains to a breastfeeding mother's understanding of the benefits of exclusive breastfeeding, as well as her knowledge of appropriate breastfeeding techniques and how to address potential issues that may arise during breastfeeding.<sup>27</sup> Political and environmental factors encompass government and community support, which may involve the availability of breastfeeding rooms in public places and corporate policies to facilitate breastfeeding for mothers.<sup>28</sup> Education is a widely used intervention to promote mothers' participation in improving the early initiation breastfeeding rate. Additionally, maternal, and infant health conditions, as well as traditional practices, can serve as barriers to early initiation of breastfeeding.<sup>29</sup>

Other research findings demonstrate that family reinforcement programs involving family members, including husbands and in-laws, can enhance breastfeeding behaviors and increase the success rate of exclusive breastfeeding programs.<sup>30</sup> Many mothers may not fully understand that babies require breast milk. Some parents mistakenly believe that their baby is not getting enough milk and is hungry and crying, leading them to use a pacifier to feed formula. To address this, lactation management counseling should be offered during pregnancy to help prevent mothers from panicking during labor.<sup>31</sup>

Family support for breastfeeding mothers enables families to participate in decision-making, problem-solving, and skills development. Counselors assist families in gathering information, expanding knowledge, and understanding, and developing the skills needed to overcome challenges and achieve their own goals. This approach fosters independence and empowers families to take control of their lives. Support and encouragement are provided to mothers to continue providing exclusive breastfeeding for their babies, including emotional and practical support such as tips on increasing milk production and stress coping strategies. Family psychoeducation significantly enhances cognitive and psychomotor skills. Badiah's research results in 2022 demonstrate that psychoeducational family therapy can improve cognitive skills. This treatment includes elements that increase knowledge and equip family members with techniques that can contribute to family support.<sup>32</sup> According to the World Health Organization (WHO), exclusive breastfeeding for the first six months of life provides babies with optimal nutrition and protection, leading to long-term positive effects on their health and development.<sup>33</sup> Family education and support can help enhance mothers' knowledge and understanding of the benefits of exclusive breastfeeding, correct breastfeeding techniques, and how to overcome challenges that may arise during the breastfeeding process.

A family support approach to improving naming practices is crucial for equipping families with the information, skills, and support needed to actively engage in naming-related decisions and actions. Family support for exclusive breastfeeding is of utmost importance as it provides the emotional, social, and informational support that mothers require for breastfeeding. Family education and support can assist mothers in feeling secure and motivated to breastfeed exclusively, overcoming any obstacles that arise, and maintaining their motivation over the long term. Strengthening the family through support can also raise awareness and offer mothers the necessary assistance in coping with the stress and uncertainty that may accompany exclusive breastfeeding.<sup>34</sup> Family support allows mothers to feel heard, understood, and encouraged in their pursuit of exclusive breastfeeding, thereby enhancing the success and sustainability of breastfeeding practices.<sup>35</sup>

## Conclusions

Family empowerment through education and support has a positive effect on increasing knowledge about exclusive breastfeeding. Active family involvement is crucial for enhancing breastfeeding. While breastfeeding mothers and families can obtain information from various sources, the application of assistance is essential as it can boost the motivation of breastfeeding mothers. Family factors, in the form of family support, are necessary for breastfeeding mothers to maintain the continuation of the exclusive breastfeeding process.

## References

1. Kemenkes. Berbagai Penyebab Diare pada Bayi. Jakarta: Kemenkes; 2023.
2. Pujiastuti N. Grandmother's Role as a Personal Reference toward Exclusive Breastfeeding Behavior. *Media Karya Kesehatan* 2021;4(1).
3. Sebayang SKKSK, Dibley MJMJ, Astutik E, et al. Determinants of age-appropriate breastfeeding, dietary diversity, and consumption of animal source foods among Indonesian children. *Matern Child Nutr* 2020;16(1).
4. Shofiya D, Sumarmi S, Sulistyono A, Suyanto B. Determinants of successful exclusive breastfeeding in primiparas mothers. *J Public Health Afr* 2023;14:259-63.
5. Kemenkes. Laporan Kinerja Kementerian Kesehatan 2022. Jakarta: Kemenkes; 2022.
6. Kemenkes RI. Profil Kesehatan Indonesia 2021. Pusdatin.Kemenkes.Go.Id. 2022. Kementerian Kesehatan Republik Indonesia.
7. Utami R, Arief YS. The effectiveness of breastfeeding self-efficacy intervention on implementation of breastfeeding in low-birth-weight infants: A systematic review. *J Pak Med Assoc* 2023;73:S153-7.
8. Diana R, Adi AC. Mother's knowledge, attitude, and practice of exclusive breastfeeding. *Indian J Public Health Res Dev* 2019;10:887-92.
9. Mardhika A, Sulistyono A, Qona'ah A, Iswatun I, Susanto J, Mei Tyas AP. Factors of Mother's Success in Exclusive Breastfeeding. *Malaysian J Med Health Sci* 2022;18:181-7.
10. Mahmud NU, Abdullah T, Arsunan AA, et al. Determinants of exclusive breastfeeding in 6 months old infant in Jeneponto District. *Indian J Public Health Res Dev* 2019;10:1487-92.
11. Nurjanah S, Wirjatmadi B, Devy SR, et al. Predictors of breastfeeding duration on mothers who return to work: a systematic review. *J Public Health Afr* 2023;14:2569.
12. Al-Katufi B, Al-Shikh M, Al-Hamad R, et al. Barriers in continuing exclusive breastfeeding among working mothers in primary health care in the ministry of health in Al-Ahsa region, Saudi Arabia. *J Family Med Prim Care* 2020;9:957.
13. Helina S, Harahap JR, Halimah S. The implementation of tri core breastfeeding models on mother's satisfaction in breastfeeding. *Int J Nursing Midwif Sci* 2022;6:68-73.
14. Kapti RE, Arief YS, Azizah N. Mother's knowledge as a dominant factor for the success of exclusive breastfeeding in Indonesia. *Helathc Low-res Sett* 2023;11:11209.
15. Awaliyah SN, Rachmawati IN, Rahmah H. Breastfeeding self-efficacy as a dominant factor affecting maternal breastfeeding satisfaction. *BMC Nurs* 2019;18:30.
16. Qurniyawati E, Syahrul F. Correlation Study Coverage of

- Exclusive Breastfeeding and Risk Factors in Indonesia. *Indonesian J Public Health* 2022;17:157-70.
17. Machmudah M, Yunitasari E. Health Education on Self-Efficacy in Breastfeeding Mothers: Literature Review. *Bali Med J* 2021;10:1066-76.
  18. Maryunani A. Inisiasi Menyusui Dini, ASI eksklusif dan manajemen laktasi. 2012. p. 39-40; 47-8.
  19. Masrurroh N, Zainiyatul Istianah N, Ulama Surabaya N, Kesehatan Sampang Madura D. Family Support for Increasing Exclusive Breastfeeding. *Jurnal Aisyah: Jurnal Ilmu Kesehatan* 2019;4:59-62.
  20. Marilyn MF, Vicky RB, Elaine GJ. *Family Nursing Research, Theory*. 5th ed. New Jersey: Julie Levin Alexander; 2003.
  21. Pujiastuti N, Santoso B, Devi SR, Adriani M, Etika R. Family empowerment with the case model on the role of the family and exclusive breastfeeding behavior. *Indian J Public Health Res Dev* 2019;10:994-8.
  22. Wahyuni NS, Rustina Y. Model Kognitif Sosial Bandura dalam Edukasi Menyusui: Literature Review. *Dunia Keperawatan: Jurnal Keperawatan dan Kesehatan* 2020;8:150.
  23. Yanti ES, Damayani AD. Father's role on the exclusive breastfeeding. *Women, Midwif Midwif* 2021;1:15-20.
  24. Mardhika A, Altas RI, Fadliyah L, et al. Description of Knowledge in Exclusive Breastfeeding Mothers At Sukomulyo Community Health Center, Gresik. *J Voc Nur* 2022;3:110-5.
  25. Pujiastuti N. Grandmother's Role as a Personal Reference toward Exclusive Breastfeeding Behavior. *Media Karya Kesehatan* 2021;4(1).
  26. Mufdlilah. Breastfeeding Empowerment Models for Young Mothers in Indonesia. *Int J Adv Sci Technol* 2020;29:90-103.
  27. Laksono AD, Wulandari RD, Ibad M, Kusrini I. The effects of mother's education on achieving exclusive breastfeeding in Indonesia. *BMC Public Health* 2021;21:1-6.
  28. Prasetyanti DK, Winarti E, Sefika PR, et al. The Relationship between Mother's Knowledge of Exclusive Breastfeeding and Exclusive Breastfeeding. *J Qual Public Health* 2022;5:532-6.
  29. Hadisyatmana S, Has EMM, Sebayang SK, Efendi F, Astutik E, Kuswanto H, et al. Women's Empowerment and Determinants of Early Initiation of Breastfeeding: A Scoping Review. *J Pediatr Nurs* 2021;56:e77-92.
  30. Djamilus F, Wahyuni S, Mulyati S, Astuti M, Studi P, Bogor K, et al. Pengaruh rekayasa model pemberdayaan masyarakat terhadap pola pemberian asi. *Jurnal Riset Kesehatan Poltekkes Depkes Bandung* 2022;14:114-21.
  31. Widaryanti R (Rahayu). Assistance for Breastfeeding Mothers During the COVID-19 Pandemic to Maintain Family Resilience. *Pancanaka* 2021;2:517645.
  32. Badi'ah A, Mendri NK, Palestin B, et al. Family Empowerment Psychoeducation on Family Support Caring of Children Diarrhea. *Maced J Med Sci* 2021;9:137-41.
  33. World Health Organization. Global nutrition targets 2025: breastfeeding policy brief [Internet]. Jenewa: World Health Organization. 2014 [cited 2023 Oct 25]. Available from: <https://www.who.int/publications/i/item/WHO-NMH-NHD-14.7>
  34. Duncan R, Coleman J, Herring S, et al. Breastfeeding Awareness and Empowerment (BAE): A Black Women-Led Approach to Promoting a Multigenerational Culture of Health. *Societies (Basel)* 2022;12(1).
  35. Nurhayatia MA, Alit Armini NK, Kusumaningrum T. Analysis of breastfeeding factors: The sunrise model approach. *Medico-Legal Update* 2020;20:334-9.