



THE EFFECTIVENESS OF EXCLUSIVE BREASTFEEDING EDUCATION THROUGH AUDIO-VISUAL MEDIA AND DEMONSTRATION AMONG PRIMIPAROUS MOTHERS

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ABSTRACT

Exclusive breastfeeding is the most optimal source of nutrition for infants during the first six months of life, yet its coverage in Indonesia remains suboptimal, particularly among primiparous mothers. This study aimed to analyze the effectiveness of exclusive breastfeeding education through a combination of audio-visual media and demonstration compared with leaflet-based education. This study employed a quasi-experimental design with a pretest–posttest control group, involving 48 primiparous mothers as research samples determined using the purposive sampling method based on the Slovin formula with a 10% margin of error, recruited from two midwifery practices in West Bogor District. Respondents were equally divided into intervention (audio-visual + demonstration, n=24) and control groups (leaflet, n=24). Data on knowledge, attitudes, and breastfeeding skills were collected using validated questionnaires and observation checklists, then analyzed with Wilcoxon and Mann–Whitney tests at a 5% significance level. The findings revealed that leaflet education significantly improved knowledge, particularly on basic breastfeeding concepts ($p<0.05$). However, audio-visual and demonstration methods were more effective in transforming attitudes and enhancing psychomotor skills, especially correct positioning and latching techniques ($p<0.001$). These results highlight that leaflet is useful for reinforcing cognitive understanding, while audio-visual and demonstration approaches provide more interactive and practical learning that supports behavioral change.

Keywords: audio-visual media; demonstration; exclusive breastfeeding; health education; primiparous mothers

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INTRODUCTION

Exclusive breast milk (ASI) is the best food for babies in the first 6 months of life (Sudargo & Kusmayanti, 2023). Breast milk contains macro and micro nutrients, antibodies, and immunological factors that function to protect babies from infectious diseases (Rivanica et al., 2023). Exclusive breastfeeding has also been shown to reduce the risk of diarrhea (Suyanto, 2024), respiratory tract infections (Anggraini et al., 2023), malnutrition (Mahmudah et al., 2023), obesity (Mustikasari et al., 2025), even chronic diseases in adulthood (Deswita, 2023; Fajria et al., 2023; Kirwelakubun et al., 2024). In addition, breast milk plays a role in increasing a child's intelligence and strengthening the emotional bond between mother and baby (Pratama et al., 2024). WHO and UNICEF recommend exclusive breastfeeding from birth to 6 months of age, followed by breastfeeding along with complementary foods until the child is 2 years old. However, the global rate of exclusive breastfeeding remains low. According to 2023 UNICEF data, less than 48% of infants aged 0–5 months worldwide are exclusively breastfed. In Indonesia, the rate of exclusive breastfeeding increased from 69.62% in 2020 to 76.76% in 2022, but declined again to 76.20% in 2023 (Azizah & Rosyidah, 2023; Husnah et al., 2024; Huwae et al., 2025; Musdalifa & Olvaningsih, 2023; Syuhada et al., 2024). This shows that despite improvements, the sustainability of exclusive breastfeeding still faces challenges.

At the regional level, disparities in achievement are also evident. Data from the West Java Provincial Health Office shows that exclusive breastfeeding coverage in 2023 reached 80.08% (Masriti et al., 2025). However, in Bogor City, specifically in West Bogor District, the coverage of

infants under 6 months who receive exclusive breastfeeding is only 61.23%, the lowest compared to other districts. This figure indicates that there are still groups of mothers who are not optimally providing exclusive breastfeeding, so the risk of impaired growth and development of infants remains high. The low rate of exclusive breastfeeding is influenced by several factors, including mothers' limited knowledge about the benefits of breast milk (Hanifa et al., 2024), negative attitudes towards breastfeeding (Sirait et al., 2024), inappropriate breastfeeding skills (Purba et al., 2024), the influence of formula milk promotion (Prihatini et al., 2023), as well as low family and environmental support (Isnaniyah et al., 2023). These factors interact with each other and contribute to a mother's decision not to consistently provide exclusive breastfeeding for up to 6 months.

The primiparous mother group is the most vulnerable group in terms of providing exclusive breastfeeding (Jafrizal et al., 2024). As first-time mothers, they tend to have limited experience, excessive anxiety, and doubts about the sufficiency of breast milk. Furthermore, some primiparous mothers face difficulties with breastfeeding techniques, such as incorrect latch, nipple pain, or the perception that milk is not coming in. Lack of family support also exacerbates the situation, leading many primiparous mothers to opt for formula feeding. Health education efforts are one strategy that can improve breastfeeding behavior (Satriani & Zamli, 2025). Effective education not only increases mothers' knowledge but also fosters positive attitudes and practical skills. Currently, the most common educational method used is leaflets (Hardjito, 2023; Lestari et al., 2024; Maptukhah & Anita, 2023), booklet (Armala et al., 2024; Nisa et al., 2024; Putra et al., 2023), or lecture (Dewi et al., 2023; Mulyani, 2024; Widyaningrum & Wahyuni, 2023). However, these methods are often less engaging, one-way, and unable to provide the real-world practical experience that primiparous mothers need.

The use of audio-visual media has great potential in increasing the effectiveness of education (Primary, 2023). This media presents information in the form of engaging audio and images, is easily accessible, and can be repeated at any time. Several studies have shown that educational videos are more effective than conventional methods in increasing mothers' knowledge of breastfeeding. However, audiovisual media alone cannot fully improve mothers' psychomotor skills in breastfeeding practice. In addition to audiovisuals, demonstration methods have the advantage of providing hands-on practical experience (Fabanyo & Abdullah, 2024; Fristiyanti et al., 2025; Yulyana et al., 2023). Through demonstrations, mothers can see the correct breastfeeding technique and then practice it with the guidance of a healthcare professional. This method is effective in improving psychomotor skills such as attachment, breastfeeding positioning, and maternal comfort while breastfeeding. However, the downside is that this method requires time and the mother's direct presence, and it cannot always be repeated once the mother is home.

Previous research has largely examined the effectiveness of audio-visual media or demonstrations separately in breastfeeding education (Kholid, 2023; Saepudin et al., 2025; Sunarsih et al., 2023). However, studies combining these two methods are still limited, particularly in the context of primiparous mothers in primary care facilities such as midwives' independent practices. However, the combination of the two has the potential to provide a more comprehensive effect: audiovisuals strengthen cognitive and affective aspects, while demonstrations enhance psychomotor aspects. The novelty of this study is the application of this combination of both methods to optimize breastfeeding behavior in primiparous mothers. Based on this description, this study aims to analyze the effectiveness of exclusive breastfeeding education through a combination of audiovisual media and demonstrations in primiparous mothers. Specifically, this study aims to assess the effect of the intervention on improving breastfeeding knowledge, attitudes, and skills. The results are expected to provide scientific contributions to the development of maternal and child health education strategies, as well as serve as a practical reference for health workers, particularly midwives, in supporting the increase in exclusive breastfeeding coverage.

METHOD

This study uses a quasi-experimental design with a pretest–posttest control group design approach (Kamaruddin et al., 2023; Rachman et al., 2024; Sugiyono, 2011). This design was chosen because it allowed researchers to measure changes in the behavior of primiparous mothers (knowledge, attitudes, and breastfeeding skills) before and after the intervention, and to compare them with the control group (Purnasari, 2021; Sahir, 2021). The intervention group received exclusive breastfeeding education using a combination of audio-visual media and demonstrations, while the control group received education using leaflets as a conventional method. The study location was the Nita and Ana Independent Midwife Practices (PMB) in West Bogor District, Bogor City. This location was chosen based on data on the low level of exclusive breastfeeding in the region, particularly among primiparous mothers.

The research population was all primiparous mothers who gave birth at PMB Nita and PMB Ana as many as 93 people. Research sample using the Purposive Sampling method as many as 48 primiparous mothers based on the Slovin formula with a margin of error of 10% (Subhaktiyasa, 2024). This sample size is for the intervention and control groups. So the intervention group sample is 24 primiparous mothers and the control group sample is 24 primiparous mothers. Inclusion criteria are primiparous mothers who have babies aged 0–6 months, are willing to be respondents, and can communicate well. Exclusion criteria include mothers with certain medical conditions that prevent breastfeeding or are not present when the intervention takes place. The independent variable in this study is exclusive breastfeeding education using audio-visual media and demonstrations. The dependent variable is the behavior of primiparous mothers which includes knowledge, attitudes, and breastfeeding skills. Operational definitions: (1) Knowledge is measured using a multiple-choice questionnaire about exclusive breastfeeding; (2) Attitude is measured using a Likert scale that assesses positive and negative responses to exclusive breastfeeding; (3) Breastfeeding skills (psychomotor) are assessed through an observation sheet including breastfeeding position, attachment, and mother's comfort while breastfeeding.

The validity and reliability tests for the knowledge and attitude instruments were not repeated, as previous studies (Afriani, 2018; Junaedah et al., 2020) had already confirmed their validity and reliability, with Cronbach's Alpha values exceeding 0.70. Meanwhile, the psychomotor instrument was tested using Pearson's Product Moment and Cronbach's Alpha on 10 respondents at PMB Ana Bogor, and all 12 items were found to be valid and reliable. The psychomotor instrument consisted of an observation sheet with a Likert scale of 1–5 (total score 0–60), administered to both experimental and control groups before and after the intervention. In this psychomotor assessment, no invalid items were identified, thus no exclusion was necessary as all items sufficiently represented the construct. Furthermore, the reliability test yielded a Cronbach's Alpha value of 0.907 (>0.70), indicating that the psychomotor assessment items were reliable.

Data collection was conducted by trained enumerators, starting with a pretest in both groups, followed by intervention according to group, and then a posttest after the intervention. In the intervention group, mothers received educational videos/audiovisuals and direct breastfeeding practice through demonstrations guided by midwives. Data were analyzed using statistical tests according to the type of data. The paired t-test or Wilcoxon test was used to examine differences in maternal behavior before and after the intervention in each group. Meanwhile, the independent t-test or Mann-Whitney test was used to compare differences in results between the intervention and control groups. The significance level was set at $\alpha = 0.05$. Data analysis was conducted to answer the hypothesis regarding the effectiveness of the combination of audiovisual education and demonstrations on the behavior of primiparous mothers in exclusive breastfeeding.

RESULT

Table 1.
Frequency Distribution of Maternal Characteristics Primipara

Characteristics	Group	
	Audio Visual and Demonstrations	Leaflet
Age		
<30 years	21 (87.5%)	13 (54.2%)
35-36 years old	2 (8.3%)	6 (25.0%)
>35 years	1 (4.2%)	5 (20.8%)
Education		
D3	3 (12.5%)	5 (20.8%)
S1	3 (12.5%)	0 (0.0%)
Senior High School	18 (75.0%)	12 (50.0%)
Junior High School	0 (0.0%)	7 (29.2%)
Work		
Housewife	18 (75.0%)	15 (62.5%)
ASN	0 (0.0%)	2 (8.3%)
Private employees	4 (16.7%)	5 (20.8%)
Businessman	2 (8.3%)	2 (8.3%)

This study involved 48 primiparous mothers who were proportionally divided into two groups: 24 in the intervention group, which received education through audio-visual media and demonstrations, and 24 in the control group, which received education through leaflets. The demographic characteristics of the respondents reveal several important trends. In terms of age, the majority of participants in the intervention group were under 30 years old, indicating that most respondents were relatively young mothers, while the control group had a slightly higher proportion of older participants. Educational background shows that both groups were dominated by mothers with secondary-level education, particularly high school graduates, which suggests a moderate level of educational attainment among the participants. Meanwhile, in terms of occupation, most respondents in both groups were housewives, although a smaller proportion worked as private employees, entrepreneurs, or civil servants. These findings illustrate that the typical profile of participants in this study was a young, first-time mother with a secondary education background and limited formal employment. Such characteristics are significant because they may influence both the receptiveness to educational interventions and the application of the knowledge and skills gained in daily childcare practices.

Table 2.
Frequency Distribution of Knowledge Variables

Variables	Group			
	Audio Visual and demonstrations		Leaflet	
	Pre-test	Post-test	Pre-test	Post-test
Good	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Enough	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Not enough	24 (100.0%)	24 (100.0%)	24 (100.0%)	24 (100.0%)

The table above shows that all respondents in both the intervention group (audiovisual and demonstration) and the control group (leaflet) had the same level of knowledge during the pre-test and post-test. All respondents (100%) were in the poor knowledge category, while none were in the adequate or good category. This indicates that prior to the education, primiparous mothers' knowledge regarding exclusive breastfeeding was still low in both groups. After the intervention, whether with audiovisual and demonstration media or leaflets, there was no change in the respondents' knowledge category. In other words, there was no categorical increase from "Poor" to "Enough" or "Good" knowledge. This may indicate that the educational intervention provided was unable to encourage changes in the knowledge category during the study period, or that the increase was still within the "Poor" score range. Therefore, further analysis using average knowledge score data is needed to determine whether there are significant differences even though they are not

reflected in the categories.

Table 3.
Frequency Distribution of Attitude Variables

Variables	Group			
	Audio Visual and Demonstration		Leaflet	
	Pre-test	Post-test	Pre-test	Post-test
Attitude 1				
Positive	6 (25.0%)	24 (100.0%)	0 (0.0%)	0 (0.0%)
Negative	18 (75.0%)	0 (0.0%)	24 (100.0%)	24 (100.0%)
Attitude 2				
Positive	21 (87.5%)	24 (100.0%)	0 (0.0%)	0 (0.0%)
Negative	3 (12.5%)	0 (0.0%)	24 (100.0%)	24 (100.0%)
Attitude 3				
Positive	0 (24.0%)	24 (100.0%)	0 (0.0%)	0 (0.0%)
Negative	0 (0.0%)	0 (0.0%)	24 (100.0%)	24 (100.0%)

Based on the analysis, a significant change in attitude occurred in the intervention group (education using audio-visual media and demonstrations), where all respondents shifted from negative to positive attitudes across all assessed aspects. In contrast, the control group (education using leaflets) showed no change, with all respondents consistently demonstrating negative attitudes both before and after the intervention. These findings indicate that exclusive breastfeeding education delivered through audio-visual media and demonstrations is far more effective in fostering positive attitudes among primiparous mothers compared to education using leaflets.

Table 4.
Frequency Distribution of Psychomotor Variables

Variables	Group			
	Audio Visual and Demonstration		Leaflet	
	Pre-test	Post-test	Pre-test	Post-test
Psychomotor 1				
Good	0 (0.0%)	19(79.2%)	0 (0.0%)	0 (0.0%)
Not enough	24 (100.0%)	5 (20.8%)	24 (100.0%)	24 (100.0%)
Psychomotor 2				
Good	21 (87.5%)	24 (100.0%)	0 (0.0%)	14 (58.3%)
Not enough	3 (12.5%)	0 (0.0%)	24 (100.0%)	10 (41.7%)
Psychomotor 3				
Good	18 (75.0%)	24 (100.0%)	24 (100.0%)	24 (100.0%)
Not enough	6 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Based on the analysis, exclusive breastfeeding education using audio-visual media and demonstrations proved to be more effective in improving the psychomotor abilities of primiparous mothers. The intervention group showed a significant improvement, with the majority of respondents moving into the good category across almost all aspects after the intervention. In contrast, the control group, which received education through leaflets, showed only a slight improvement in Psychomotor 2, while no meaningful changes were observed in Psychomotor 1 and 3.

Based on the Shapiro-Wilk normality test, not all variables showed a normal distribution in either the video or leaflet groups. The distribution of knowledge data was more stable in the video group compared to the leaflet group, while the distribution of attitude and psychomotor variables tended to vary across both groups. Overall, since most of the data were not normally distributed, further analysis was carried out using non-parametric statistical tests.

Table 5.

Results of the Normality Test of Knowledge, Attitude, and Psychomotor Before and After Educational Media Intervention

Variables	Educational Media	Statistics	Shapiro-Wilk		Information
			Df	Sig.	
Knowledge Gap 1	Video	0.894	24	0.016	Not Normally Distributed
	Leaflet	0.925	24	0.076	Normally Distributed
Knowledge Gap 2	Video	0.762	24	0.000	Not Normally Distributed
	Leaflet	0.899	24	0.021	Not Normally Distributed
Knowledge Gap 3	Video	0.777	24	0.000	Not Normally Distributed
	Leaflet	0.756	24	0.000	Not Normally Distributed
Attitude Difference 1	Video	0.970	24	0.672	Normally Distributed
	Leaflet	0.908	24	0.031	Not Normally Distributed
Difference in Attitude 2	Video	0.901	24	0.022	Normally Distributed
	Leaflet	0.920	24	0.059	Not Normally Distributed
Attitude Difference 3	Video	0.901	24	0.022	Not Normally Distributed
	Leaflet	0.846	24	0.002	Not Normally Distributed
Psychomotor Difference 1	Video	0.976	24	0.807	Normally Distributed
	Leaflet	0.953	24	0.312	Normally Distributed
Psychomotor Difference 2	Video	0.895	24	0.017	Not Normally Distributed
	Leaflet	0.901	24	0.022	Not Normally Distributed
Psychomotor Difference 3	Video	0.895	24	0.017	Not Normally Distributed
	Leaflet	0.915	24	0.045	Not Normally Distributed

Table 6.

Effectiveness of Education Before and After in Audio Visual and Demonstration Groups

Variables	Before (Mean $\pm$ SD)	After (Mean $\pm$ SD)	Z (Wilcoxon)	p-Value
Knowledge 1	-	-	-2.186	0.029
Knowledge 2	-	-	-2.186	0.029
Knowledge 3	-	-	-1.949	0.051
Attitude 1	13.92 $\pm$ 7.10	5.92 $\pm$ 3.89	-3.951	0.0001
Attitude 3	13.92 $\pm$ 7.10	5.92 $\pm$ 3.89	-3.951	0.0001
Psychomotor1 vs 2	18.04 $\pm$ 6.48	7.04 $\pm$ 3.64	-4.133	0.0001
Psychomotor 1 vs 3	18.04 $\pm$ 6.48	7.04 $\pm$ 3.64	-4.133	0.0001

Based on the table above shows the results of the Wilcoxon test on the differences in knowledge, attitude, and psychomotor scores of primiparous mothers before and after being given education with audio-visual media and demonstrations. In the knowledge variable, there was a significant change in Knowledge 1 and Knowledge 2 with a p value of 0.029 (<0.05) each, which means there was an increase in knowledge after being given education. However, in Knowledge 3 the p value was 0.051 (>0.05) which indicated there was no significant difference between before and after the intervention. In the attitude variable, both Attitude 1 and Attitude 3 showed very significant results, with a p value = 0.0001. The average attitude score before the intervention was 13.92 ± 7.10 and after the intervention decreased to 5.92 ± 3.89 , which indicated an improvement in the direction of attitudes from negative to more positive according to the questionnaire scoring. In the psychomotor variable, the analysis results showed a significant difference in Psychomotor 1 vs 2 and Psychomotor 1 vs 3, with a p value = 0.0001. The average psychomotor score before the intervention was 18.04 ± 6.48 and decreased after the intervention to 7.04 ± 3.64 , indicating an increase in mothers' psychomotor skills in breastfeeding after receiving education. Overall, this table shows that exclusive breastfeeding education through audio-visual media and demonstrations effectively improved knowledge (partially), attitudes, and psychomotor skills of primiparous mothers, with statistically significant changes in almost all tested variables.

Table 7.

Effectiveness of Education Before and After in Leaflet Group

Variables	Before (Mean $\pm$ SD)	After (Mean $\pm$ SD)	Z (Wilcoxon)	p-value
Knowledge 1	-	-	-3,935	0.000
Knowledge 2	-	-	-3,935	0.000
Knowledge 3	-	-	-4.120	0.000
Attitude 1 vs 2	3.17 $\pm$ 1.69	5.17 $\pm$ 2.12	-2,744	0.006
Attitude 1 vs 3	3.17 $\pm$ 1.69	1.58 $\pm$ 1.64	-2,831	0.005
Psychomotor 1 vs 2	18.83 $\pm$ 4.68	2.96 $\pm$ 1.71	-4.133	0.0001
Psychomotor 1 vs 3	18.83 $\pm$ 4.68	2.46 $\pm$ 1.50	-4.133	0.0001

Based on the results of the Wilcoxon test, education using leaflets was proven effective in improving the knowledge, attitudes, and psychomotor skills of primiparous mothers, as indicated by significant changes across all variables. However, although improvements were observed, the effectiveness of leaflets was relatively lower compared to audio-visual media and demonstrations. Thus, it can be concluded that leaflets are effective but less optimal as a single educational medium.

Table 8.

Differences in Knowledge between Video and Leaflet Groups

Variables	Educational Media	Mean $\pm$ SD	p-value
Knowledge Gap 1	Video	1.88 $\pm$ 1.19	0.000
	Leaflet	5.04 $\pm$ 1.49	
Knowledge Gap 2	Video	1.17 $\pm$ 0.87	0.103
	Leaflet	2.00 $\pm$ 1.67	
Knowledge Gap 3	Video	1.25 $\pm$ 0.99	0.606
	Leaflet	1.21 $\pm$ 1.53	

The comparison results show that education using leaflets was superior to video (audio-visual + demonstration) in improving knowledge in the first aspect, with a significant difference. However, in the second and third aspects, both educational media were equally effective without significant differences. Thus, leaflets were more effective in the initial improvement of knowledge, while in other aspects both media demonstrated comparable effectiveness.

Table 9.

Differences in Attitudes between the Audio Visual and Demonstration and Leaflet Groups

Variables	Educational Media	Mean $\pm$ SD	p-value
Attitude Difference 1	Video	13.92 $\pm$ 7.10	0.000
	Leaflet	3.17 $\pm$ 1.69	
Difference in Attitude 2	Video	5.92 $\pm$ 3.89	0.959
	Leaflet	5.17 $\pm$ 2.12	
Attitude Difference 3	Video	5.92 $\pm$ 3.89	0.000
	Leaflet	1.58 $\pm$ 1.64	

The comparison results show that education using video media (audio-visual + demonstration) was more effective than leaflets in improving the attitudes of primiparous mothers, particularly in attitude aspects 1 and 3, with significant differences. Meanwhile, in attitude aspect 2, both media were equally effective without significant differences. Thus, video media proved to be superior in fostering positive attitudes, although in certain aspects its effectiveness was comparable to leaflets.

Table 10.

Psychomotor Differences between Video and Leaflet Groups

Variables	Educational Media	Mean $\pm$ SD	p-value
Difference Psychomotor 2	Video	7.04 $\pm$ 3.64	0.000
	Leaflet	2.96 $\pm$ 1.71	
Difference Psychomotor 3	Video	7.04 $\pm$ 3.64	0.000
	Leaflet	2.46 $\pm$ 1.50	

The table above shows a comparison of changes in the psychomotor abilities of primiparous mothers after being given education with two different media, namely video (audio visual +

demonstration) and leaflets. In psychomotor difference 2, the average change in scores in the video group was 7.04 ± 3.64 , while in the leaflet group it was only 2.96 ± 1.71 . The results of the statistical test showed a p value = 0.000 (<0.05), which means there was a significant difference between the two groups. Thus, education through video was proven to be more effective in improving respondents' psychomotor skills than leaflets. In psychomotor difference 3, the same results were also found. The average change in scores in the video group was 7.04 ± 3.64 , while in the leaflet group it was only 2.46 ± 1.50 . The statistical test again showed a p value = 0.000 (<0.05), which confirmed a significant difference, where video media was superior to leaflets in improving the psychomotor skills of primiparous mothers. Overall, these findings show that audio-visual media and demonstrations are much more effective than leaflets in improving the psychomotor aspects of primiparous mothers, especially in practical breastfeeding skills.

DISCUSSION

The results of the study showed that exclusive breastfeeding education through audiovisual media and demonstrations, as well as leaflets, were equally effective in improving the knowledge, attitudes, and psychomotor skills of primiparous mothers, although their effectiveness varied across variables. Regarding knowledge, leaflet education resulted in a relatively higher increase in one indicator compared to video media. Conversely, regarding attitudes and psychomotor skills, audiovisual and demonstration education proved significantly superior. This suggests that the choice of educational media significantly influences the success of the health learning process, according to the characteristics of the material and the needs of the target audience. The significant increase in knowledge in both the leaflet and video groups supports the theory that health education plays a crucial role in improving mothers' understanding of exclusive breastfeeding (Septina et al., 2023). Leaflets provide information in written and graphic form that can be read repeatedly, making it easier for mothers to understand the content. This aligns with previous research that found simple print media to be effective in increasing the knowledge of pregnant and breastfeeding mothers (Unnisa et al., 2023), especially in communities with secondary education levels (Nuraini et al., 2024).

However, in this study, leaflet education was unable to significantly change attitudes in all aspects, while video and demonstration media produced better results. This is likely due to differences in media characteristics. Video is more interactive and visually engaging, while demonstrations allow respondents to directly witness correct breastfeeding practices. According to social learning theory, learning through observation (observational learning) is more effective in shaping attitudes and behavior because it involves the processes of attention, retention, reproduction, and motivation (Suantini et al., 2024). In terms of psychomotor skills, audiovisual media and demonstrations performed significantly better than leaflets. This is because practical skills like breastfeeding require hands-on experience and concrete examples, making demonstrations more appropriate. Leaflet-based education provides only theoretical information without practical experience, making it less effective in improving psychomotor skills. These results are consistent with previous research that found demonstrations to be more effective in improving maternal infant care skills than text-based education (Mandalin et al., 2024; Mistari & Rahim, 2023; Page & Megawati, 2025; Sukoco et al., 2024).

Based on the characteristics of the respondents, the majority were under 30 years old and had a high school education. Young age is often associated with limited experience in caregiving, so they require educational media that is easy to understand and applicable. This supports why audio-visual media and demonstrations are more effective on attitudes and psychomotor skills, as respondents can directly observe and imitate correct practices. Meanwhile, in groups with higher education, leaflets may remain effective due to their better literacy skills. This study's findings emphasize the importance of selecting educational media that suits the target characteristics. To improve basic knowledge, leaflets can still be an alternative because they are inexpensive, easy to distribute, and

can be reread by mothers. However, to change attitudes and improve psychomotor skills, the use of audio-visual media combined with demonstrations is more recommended. Therefore, health workers, especially midwives, can combine the two media according to field needs.

Although the results of this study indicate differences in effectiveness between media, there are several limitations. First, this study used a limited sample ($n=48$), so generalization of the results still requires caution. Second, post-intervention measurements were conducted over a relatively short period of time, so the long-term effects on breastfeeding behavior are unknown. Third, external factors such as family and environmental support were not controlled, even though these also influence the success of exclusive breastfeeding. Practically, this study implies that health promotion programs, particularly those supporting exclusive breastfeeding, should prioritize educational media based on audiovisuals and demonstrations to improve maternal attitudes and skills, while leaflets remain used as supporting media. The combination of various educational media is expected to strengthen understanding, foster positive attitudes, and improve the skills of primiparous mothers in breastfeeding practices, thereby achieving the goal of exclusive breastfeeding during the first six months.

CONCLUSION

This study demonstrates that exclusive breastfeeding education through leaflets, audiovisual media, and demonstrations are equally effective in improving the knowledge, attitudes, and psychomotor skills of primiparous mothers, although their effectiveness varies in each domain. Leaflets are superior in reinforcing cognitive knowledge because they can be read repeatedly and used as independent references. Conversely, audiovisual media and demonstrations have proven more effective in fostering positive attitudes and improving practical breastfeeding skills because they provide a more interactive, engaging, and applicable learning experience in accordance with observational learning principles. The practical implication of these findings is the need for health workers, particularly midwives, to combine both educational media according to learning objectives. Leaflets can be provided early on to reinforce basic information, while educational sessions with audiovisual media and demonstrations are provided intrapartum or early postpartum to practice breastfeeding skills directly. This multimodal educational strategy is expected to balance cognitive, affective, and psychomotor aspects, thereby supporting the success of the exclusive breastfeeding program and helping the government reduce breastfeeding failure rates. Further research is recommended using a randomized controlled trial design with a larger sample size and a longer follow-up period (≥ 6 months) to assess retention of breastfeeding knowledge, attitudes, and skills, while also evaluating clinical outcomes such as successful exclusive breastfeeding.

REFERENCES

- Afriani, R. (2018). Hubungan Dukungan Sosial dan Sikap Ibu terhadap Keberhasilan Pemberian ASI Eksklusif Di Wilayah Puskesmas Benao Kabupaten Barito Utara Kalimantan Tengah. Universitas Airlangga.
- Anggraini, W., Aisyah, S., & Afrika, E. (2023). Faktor-Faktor yang Berhubungan dengan Kejadian Infeksi Saluran Pernapasan Akut (ISPA) pada Balita di Puskesmas Kemalaraja Kabupaten Ogan Komering Ulu Tahun 2023. *Jurnal Kesehatan Saintika Meditory*, 6(2), 205–212. <https://doi.org/http://dx.doi.org/10.30633/jsm.v6i2.2043>
- Armala, D., Palupi, R., & Putri, R. H. (2024). Pengaruh Edukasi Kesehatan Media Booklet Terhadap Tingkat Pengetahuan Pada Wanita Premenopause di Desa Gunung Sugih Lampung Tengah. *Health Research Journal of Indonesia*, 2(5), 277–284. <https://wpcpublisher.com/jurnal/index.php/HRJI/article/view/343>
- Azizah, W., & Rosyidah, H. (2023). Faktor-Faktor yang Mempengaruhi Pemberian Susu Formula pada Usia 0-6 Bulan: Scoping Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(6), 1039–1046. <https://doi.org/https://doi.org/10.56338/mppki.v6i6.3379>

- Deswita, M. K. (2023). *Breastfeeding Self-Efficacy Ibu Terkait Pemberian ASI Eksklusif Pada Bayi*. Penerbit Adab.
- Dewi, B., Dewi, Z., & Hariati, N. W. (2023). Pengaruh Edukasi Gizi Dengan Media Animasi Terhadap Pengetahuan dan Sikap Ibu Tentang Stunting. *Jurnal Riset Pangan Dan Gizi*, 5(1), 14–25. <https://doi.org/https://doi.org/10.31964/jr-panzi.v5i1.178>
- Fabanyo, R. A., & Abdullah, V. I. (2024). *Konsep dan Prinsip Promosi Kesehatan: Pengaplikasian dalam Praktik Kebidanan*. Penerbit NEM.
- Fajria, L., Khairina, I., & Annisa, Z. (2023). *Breastfeeding Self-Efficacy & Permasalahan Asi Eksklusif*. Penerbit Adab.
- Fristiyanti, R. A., Sadeli, S. F., & Fazriyah, N. (2025). Upaya Mengatasi Konstipasi Bayi 6-12 Bulan Melalui Peningkatan Pengetahuan dan Keterampilan Pijat di Posyandu Kota Bogor. *Jurnal Mandala Pengabdian Masyarakat*, 6(1), 186–196. <http://jurnal-pharmaconmw.com/jmpm/index.php/jmpm/article/view/571>
- Hanifa, F., Putri, M. T., Pangestu, G. K., & Hidayani, H. (2024). Faktor-Faktor yang Mempengaruhi Pemberian ASI Eksklusif: Literature Review. *Jurnal Penelitian Inovatif*, 4(3), 1025–1032. <https://doi.org/https://doi.org/10.54082/jupin.448>
- Hardjito, K. (2023). Optimalisasi Media Leaflet Dalam Meningkatkan Pengetahuan dan Sikap Ibu Tentang Asi Eksklusif. *HEALTHY: Jurnal Inovasi Riset Ilmu Kesehatan*, 2(4), 33–40. <https://doi.org/https://doi.org/10.51878/healthy.v2i1.2311>
- Husnah, H., Sakdiah, S., & Andayani, H. (2024). Dampak Inisiasi Menyusui Dini Terhadap Penurunan Angka Kematian Bayi. *Jurnal Kedokteran Nanggroe Medika*, 7(1), 34–42. <https://doi.org/https://doi.org/10.35324/jknamed.v7i1.280>
- Huwae, L. M. C., Klau, K. C., Zebua, P. M. K., Johansz, I. C., Tuhuleruw, K. S., Tahalele, E. N. C. M., Leuwol, J. A., Pamesti, G. R., Huwae, L. B. S., & Bension, J. B. (2025). Edukasi Pentingnya Pemberian ASI Eksklusif pada Masyarakat Desa Allang Asaude. *Jurnal Pengabdian Masyarakat Waradin*, 5(2), 43–49. <https://doi.org/https://doi.org/10.56910/wrd.v5i2.621>
- Isnaniyah, S., Munawaroh, M., & Novita, A. (2023). Hubungan Pengetahuan, Sikap Ibu Serta Dukungan Keluarga Terhadap Keberhasilan Pemberian Asi Eksklusif Di Pmb Sri Isnaniyah Kelurahan Srengseng Sawah Jakarta Selatan Tahun 2022. *SENTRI: Jurnal Riset Ilmiah*, 2(2), 309–323. <https://doi.org/https://doi.org/10.55681/sentri.v2i2.507>
- Jafrizal, P. K., Aspatia, U., & Nur, M. L. (2024). Determinasi Perlekatan dan Posisi Ibu Menyusui dalam Memberikan ASI terhadap Keberhasilan Pemberian ASI Eksklusif di Wilayah Kerja Puskesmas Oesapa. *SEHATMAS: Jurnal Ilmiah Kesehatan Masyarakat*, 3(2), 307–315. <https://doi.org/https://doi.org/10.55123/sehatmas.v3i2.3421>
- Junaedah, J., Hilda, H., & Nurachma, E. (2020). Hubungan Pengetahuan Ibu Dengan Pemberian Air Susu Ibu Eksklusif di Wilayah Kerja Puskesmas Muara Badak.
- Kamaruddin, I., Firmansah, D., Amane, A. P. O., & Samad, M. A. (2023). *Metodologi Penelitian Kuantitatif. Pertama*. Edited by Diana Purnama Sari. Padang: Global Eksekutif Teknologi.
- Kholid, A. (2023). *Promosi Kesehatan: Dengan Pendekatan Teori Perilaku, Media, dan Aplikasinya untuk Mahasiswa dan Praktisi Kesehatan-Rajawali Pers*. PT. RajaGrafindo Persada.
- Kirwelakubun, P., Husain, H., Suriani, S., & Gasma, A. (2024). Pengetahuan Ibu Tentang Pemberian ASI Eksklusif Di Wilayah Kerja Puskesmas Ngilngof. *Media Kebidanan*, 3(2), 57–62. <https://doi.org/https://doi.org/10.32382/mkeb.v3i2.1251>
- Lestari, L., Heryani, H., & Ariani, D. (2024). Edukasi Anemia pada Remaja Putri Melalui E-Leaflet Berbasis WhatsApp Messenger. *Archive: Jurnal Pengabdian Kepada Masyarakat*, 3(2), 349–359. <https://doi.org/https://doi.org/10.55506/arch.v3i2.114>
- Mahmudah, H., Maarif, M. Z., Novianti, T. D., Renowening, Y., & Ridha, A. (2023). Pemberian ASI Eksklusif Sebagai Upaya Pencegahan Stunting Pada Usia Balita: Studi Literatur. *Jurnal Promotif Preventif*, 6(4), 600–607. <https://doi.org/https://doi.org/10.47650/jpp.v6i4.919>
- Mandalin, B., Fatimah, Y. U., Widiawati, I., & Suparman, S. (2024). Perbedaan Efektivitas Edukasi dengan Metode Demonstrasi dan Video Pijat Bayi terhadap Pengetahuan dan Keterampilan

- Ibu. *Jurnal Kesehatan Komunitas (Journal of Community Health)*, 10(3), 626–635. <https://doi.org/https://doi.org/10.25311/keskom.Vol10.Iss3.1850>
- Maptukhah, A., & Anita, N. (2023). Efektivitas Edukasi Melalui Media Leaflet terhadap Peningkatan Pengetahuan Remaja Putri Tentang Risiko Pernikahan Dini. *Jurnal Ilmiah Universitas Batanghari Jambi*, 23(1), 637–642. <https://doi.org/http://dx.doi.org/10.33087/jiubj.v23i1.3283>
- Masriti, M., Mamlukah, M., Susianto, S., & Wahyuniar, L. (2025). Faktor yang berhubungan dengan pemberian ASI eksklusif oleh ibu pekerja. *Journal of Nursing Practice and Education*, 5(2), 239–244. <https://doi.org/https://doi.org/10.34305/jnpe.v5i2.1671>
- Mistari, N., & Rahim, R. (2023). Pemanfaatan Media Sosial sebagai Media Penyajian Konten Edukasi Stunting untuk Ibu Hamil. *Remik: Riset Dan E-Jurnal Manajemen Informatika Komputer*, 7(3), 1276–1290. <https://doi.org/10.33395/remik.v7i3.12521>
- Mulyani, S. (2024). Efektifitas Pendidikan Kesehatan Melalui Group Whasapp Reminder Berkala Dengan Metode Ceramah Terhadap Pemberian Asi Eksklusif Pada Ibu Pasca Seksio Sesarea. *Bookchapter Maternitas*.
- Musdalifa, M., & Olvaningsih, O. (2023). Pengetahuan Ibu Hamil Tentang Pemberian Asi Eksklusif Pada Bayi Berumur 0-6 Bulan. *Journal Fenomena Kesehatan*, 6(2), 40–45. <https://ojs.ikbkjp.ac.id/JFK/article/view/176>
- Mustikasari, M., Nency, A., & Jayatmi, I. (2025). Pengaruh Pijat Oksitosin dan Pemberian Sayur Jantung Pisang terhadap Produksi ASI Pada Ibu Nifas. *Jurnal Masyarakat Sehat Indonesia*, 4(2), 77–86. <https://doi.org/https://doi.org/10.70304/jmsi.v4i02.97>
- Nisa, K., Utami, K. D., Mustaming, M., & Pramono, J. S. (2024). Pengaruh Edukasi Gizi dengan Media Booklet terhadap Pola Makan dan Kejadian Dispepsia di Sma Budi Bakti Samarinda. *Indonesian Food and Nutrition Research Journal*, 1(1), 1–7. <https://ejournal.poltekkes-kaltim.ac.id/index.php/Nutrition/article/view/88>
- Nuraini, R., Dewi, Y. I., & Lestari, W. (2024). Efektivitas Media Edukasi VAS (Video Antisipasi Stunting) terhadap Pengetahuan Ibu Hamil dalam Pencegahan Stunting. *Innovative: Journal Of Social Science Research*, 4(4), 4295–4307. <https://j-innovative.org/index.php/Innovative/article/view/12717>
- Page, M. T., & Megawati, I. (2025). Optimalisasi Pengetahuan Ibu Tentang Stunting Melalui Edukasi Kesehatan Berbasis Booklet. *Citra Delima Scientific Journal of Citra Internasional Institute*, 8(2), 117–124. <https://doi.org/https://doi.org/10.33862/citradelima.v8i2.489>
- Pratama, R. M. K., Handayani, A. M., Andriani, L., Yunus, A., & Novika, R. G. H. (2024). Edukasi Emotional Demonstration pada Ibu Menyusui. Penerbit NEM.
- Pratama, R. N. (2023). Pengaruh Penggunaan Media Edukasi Audio Visual Terhadap Peningkatan Pengetahuan Ibu Hamil Tentang Gizi Dalam Kehamilan. *Masker Medika*, 11(2), 251–257. <https://doi.org/https://doi.org/10.52523/maskermedika.v11i2.547>
- Prihatini, F. J., Achyar, K., & Kusuma, I. R. (2023). Faktor–faktor yang mempengaruhi ketidakberhasilan ASI eksklusif pada ibu menyusui. *Jurnal Riset Kesehatan Masyarakat*, 3(4), 184–191. <https://doi.org/https://doi.org/10.14710/jrkm.2023.18811>
- Purba, E. M., Ginting, L., Purba, S., & Nainggolan, A. W. (2024). Pelatihan Kader Terpadu Untuk Meningkatkan Keterampilan Dan Pengetahuan Tentang Asi Eksklusif Di Desa Sembahe Baru Kabupaten Deli Serdang. *Jurnal Pengabdian Masyarakat Sapangambe Manoktok Hitei*, 4(2), 347–354. <https://doi.org/https://doi.org/10.36985/80gzw866>
- Purnasari, N. (2021). *Metodologi Penelitian*. Guepedia.
- Putra, D., Andriani, R., & Armyanti, I. (2023). Pengukuran Tingkat Pengetahuan Tentang Makanan Pendamping Asi Sebelum Dan Setelah Edukasi Kesehatan Dengan Media Booklet. *Majalah Kesehatan*, 10(3), 177–186. <https://doi.org/https://doi.org/10.21776/majalahkesehatan.2023.010.03.5>
- Rachman, A., Yochanan, E., Samanlangi, A. I., & Purnomo, H. (2024). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Saba Jaya Publisher.

- Rivanica, R., Handayani, S., Hipson, M., Riyanti, N., Solama, W., Devita, R., & Arisandy, W. (2023). Edukasi Penyuluhan Tentang Pentingnya Air Susu Ibu (ASI) Eksklusif untuk Pemenuhan Nutrisi. *Jurnal Pengabdian Kepada Masyarakat (ABDIKEMAS)*, 5(1), 30–34. <https://doi.org/https://doi.org/10.36086/j.abdikemas.v5i1.1603>
- Saepudin, E., Damayani, N. A., & Rusmana, A. (2025). Pendidikan Literasi Kesehatan Lingkungan Bagi Anak Usia Dini. *Innovative: Journal Of Social Science Research*, 5(3), 4770–4785. <https://j-innovative.org/index.php/Innovative/article/view/18975>
- Sahir, S. H. (2021). *Metodologi Penelitian*. Penerbit KBM Indonesia.
- Satriani, S., & Zamli, Z. (2025). Optimalisasi Pemberian ASI Eksklusif dan Penguatan Kelas Balita Melalui Kampanye Edukasi di Kecamatan Pasimasunggu Timur, Kepulauan Selayar. *Jurnal Pengabdian Masyarakat Bangsa*, 3(5), 2480–2484. <https://doi.org/https://doi.org/10.59837/jpmba.v3i5.2773>
- Septina, R., Susilowati, L., & Adrianingsih, T. (2023). Pengetahuan Ibu Tentang Pentingnya ASI Eksklusif Dalam Mencegah Stunting. *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)*, 4(3), 723–730. <https://doi.org/https://doi.org/10.37339/jurpikat.v4i3.1572>
- Sirait, Y. E., Efendy, I., & Maryanti, E. (2024). Faktor-Faktor Yang Memengaruhi Pemberian ASI Eksklusif Dalam PHBS Pada Tatanan Rumah Tangga Di Kelurahan Pelawi Kecamatan Babalan Kabupaten Langkat. *Termometer: Jurnal Ilmiah Ilmu Kesehatan Dan Kedokteran*, 2(2), 73–87. <https://doi.org/https://doi.org/10.55606/termometer.v2i2.3641>
- Suantini, N. N., Suarni, N. K., & Margunayasa, I. G. (2024). Implementasi teori kognitif sosial Bandura melalui media video animasi cerita rakyat Bali untuk meningkatkan pendidikan moral siswa kelas V sekolah dasar. *Jurnal Ilmiah Profesi Pendidikan*, 9(1), 716–727. <https://doi.org/10.29303/jipp.v9i1.1950>
- Subhaktiyasa, P. G. (2024). Menentukan Populasi dan Sampel: Pendekatan Metodologi Penelitian Kuantitatif dan Kualitatif. *Jurnal Ilmiah Profesi Pendidikan*, 9(4), 2721–2731. <https://doi.org/10.29303/jipp.v9i4.2657>
- Sudargo, T., & Kusmayanti, N. A. (2023). *Pemberian ASI Eksklusif Sebagai Makanan Sempurna Untuk Bayi*. Ugm Press.
- Sugiyono, P. D. (2011). *Metodologi Penelitian Kuantitatif, Kualitatif, R&D*. Bandung: Alfabeta.
- Sukoco, B., Kartika, E., & Yugistyowati, A. (2024). Dampak Penggunaan Media Berbasis Android terhadap Self-efficacy Ibu dalam Merawat Neonatus. *ASJN (Aisyiyah Surakarta Journal of Nursing)*, 5(1), 48–58. <https://doi.org/https://doi.org/10.30787/asjn.v5i1.1526>
- Sunarsih, S., Gunawan, M. R., Hartini, S., Sholihat, N., Arsyad, G., Murwati, M., Sastrini, Y. E., Umam, M. K., Nurliyani, N., & Herdiani, I. (2023). *Promosi Dan Penyuluhan Kesehatan*. Penerbit Tahta Media.
- Suyanto, M. (2024). Hubungan Pemberian ASI Eksklusif Dengan Diare Pada Balita Di Puskesmas Kesugihan I. *NERSMID: Jurnal Keperawatan Dan Kebidanan*, 7(2), 157–167. <https://doi.org/https://doi.org/10.55173/nersmid.v7i2.182>
- Syuhada, W. O. N., Jamuddin, J., & Adfin, A. N. (2024). Gambaran Tingkat Pengetahuan Ibu tentang Pemberian ASI Eksklusif pada Bayi 0-6 Bulan. *Jurnal Riset Multidisiplin Agrisosco*, 2(2), 53–61. <https://doi.org/https://doi.org/10.61316/jrma.v2i2.82>
- Unnisa, D. I., Ratnawati, R., Anshory, J., & Mardiana, N. (2023). Edukasi Stunting Melalui Audiovisual Dan Leaflet Meningkatkan Pengetahuan Dan Sikap Ibu Hamil. *Jurnal Riset Gizi*, 11(2), 80–85. <https://doi.org/https://doi.org/10.31983/jrg.v11i2.10382>
- Widyaningrum, E. A., & Wahyuni, D. (2023). Pengaruh edukasi dengan metode ceramah, bernyanyi, dan permainan terhadap peningkatan pengetahuan masyarakat tentang dagusibu obat. *Jurnal Abdi Masyarakat Indonesia*, 3(1), 255–262. <https://doi.org/https://doi.org/10.54082/jamsi.630>
- Yulyana, N., Wahyuni, E., Safitri, W., & Sholihat, S. (2023). Peningkatan Pengetahuan melalui Pendidikan Kesehatan terhadap Keterampilan Pemeriksaan Payudara Sendiri pada Wanita Usia Subur. Penerbit NEM.