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The Effect of Emotional Demonstration on Maternal Knowledge and Attitudes Regarding Infant and Young Child Feeding in Samarinda, Indonesia

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ABSTRACT

Nutritional problems among children under five, particularly stunting, remain a major public health challenge in East Kalimantan, especially in Samarinda. Findings from a preliminary study indicated that one contributing factor is the low level of maternal knowledge and attitudes regarding Infant and Young Child Feeding (IYCF). This study aimed to analyze the effect of IYCF education using the Emotional Demonstration (Emo-Demo) method on the knowledge and attitudes of mothers with children under five in the service area of Mangkupalas Primary Health Center. This study employed a quasi-experimental design with a pretest–posttest control group approach. A total of 34 mothers of children under five were recruited and divided equally into a control group (Booklet PINTAR, n = 17) and an intervention group (Emo-Demo, n = 17). Data on knowledge and attitudes were collected using structured questionnaires. Despite the observed improvements, it is important to note that significant sociodemographic disparities existed at baseline between the two groups, particularly regarding maternal education and household income. Data analysis was conducted using the Wilcoxon test to assess within-group changes and the Mann–Whitney test for between-group comparisons. The results showed a significant improvement in both knowledge and attitudes in the two groups; however, greater changes were observed in the intervention group. Education using the Emo-Demo method significantly increased maternal knowledge (p = 0.000) and attitudes (p = 0.001). Overall, the Emo-Demo method appeared more effective than printed media, although these findings must be interpreted with caution due to the baseline inequalities.

Key Messages:

- IYCF education using the Emotional Demonstration method is more effective in improving both knowledge and attitudes of mothers with children under five compared to the Booklet PINTAR.
- Emotional and interactive approaches promote not only understanding but also behavioral motivation, while booklets remain useful as practical reminders following the intervention.

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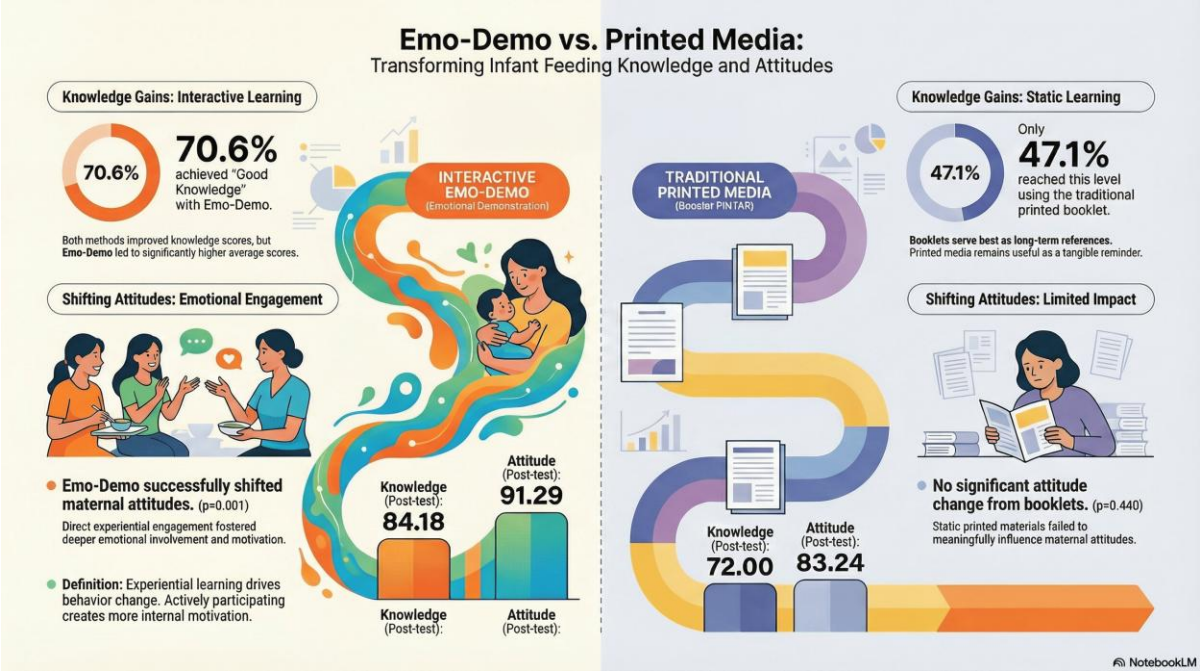
GRAPHICAL ABSTRACT



INTRODUCTION

Malnutrition among children under five years of age remains a complex global public health problem (1). Malnutrition manifests in several forms, including stunting, wasting, and overweight (2). Stunting reflects impaired linear growth resulting from chronic undernutrition and recurrent infections, whereas wasting is an indicator of acute undernutrition (3). Both conditions contribute substantially to increased morbidity and mortality, reduced productivity, and the loss of future human capital.

Globally, the burden of malnutrition among young children remains considerable. In 2024, stunting was estimated to affect 23.2% or approximately 150.2 million children under five years of age. Acute malnutrition in the form of wasting threatened about 42.8 million children (6.6%), while overweight—often overlooked—was estimated to affect 35.5 million children under five (5.5%) worldwide (4). These figures indicate that the triple burden of malnutrition—stunting, wasting, and overweight—continues to pose a serious challenge to child health development globally.

In Indonesia, the prevalence of stunting remains high despite a downward trend in recent years. Data from the Indonesian Nutrition Status Survey (SSGI) show a decline in stunting prevalence among children under five from 27.7% in 2019 to 24.4% in 2021, followed by a further reduction to 21.6% in 2022 (5) (6). The most recent Indonesian Health Survey (SKI) in 2023 reported a national stunting prevalence of 21.5%. At the provincial level, East Kalimantan recorded a prevalence of 23.9%, while Samarinda City reported a relatively high prevalence of 24.4% (7). As the provincial capital, Samarinda continues to face similar challenges, including in the service area of Mangkupalas Primary Health Center, where a preliminary assessment revealed that 90.41% of mothers did not practice appropriate Infant and Young Child Feeding (IYCF).

Stunting in childhood is associated with both short- and long-term consequences. These include increased susceptibility to illness and mortality, impaired cognitive development and learning capacity, elevated risks of infections and non-communicable diseases in adulthood, as well as reduced productivity and economic potential (8) (9) (10). Reducing childhood stunting is the first of six targets outlined in the Global Nutrition Targets 2025 and is a key indicator of Sustainable Development Goal (SDG) 2, Zero Hunger (8). Therefore, interventions during the first 1,000 days of life are critical to breaking the intergenerational cycle of malnutrition.

Findings from a preliminary study conducted in the service area of Mangkupalas Primary Health Center identified several determinants of nutritional problems in 2024, including lack of national health

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insurance (22.3%), limited access to clean water (6.85%), a history of chronic energy deficiency during pregnancy (11.87%), absence of sanitary latrines (5.02%), incomplete basic immunization (28.77%), household exposure to cigarette smoke (73.52%), history of helminth infection (8.22%), and inappropriate feeding practices related to feeding frequency, portion size, age appropriateness, and dietary diversity among 90.41% of mothers. A rapid survey involving ten mothers of children under five showed that 50% had poor knowledge, 40% had moderate knowledge, and only 10% demonstrated good knowledge (Primary Data, Mangkupalas Primary Health Center, 2024/2025).

One of the programs currently being implemented is Infant and Young Child Feeding (IYCF). Appropriate IYCF practices have been shown to support optimal child growth by reducing the risk of diarrhea, respiratory infections, and poor nutritional status (11). In addition, IYCF contributes to improved cognitive development in children and lowers the risk of diabetes mellitus, overweight, and obesity among mothers (12). Therefore, promoting appropriate IYCF through evidence-based interventions is essential to strengthen maternal knowledge, beliefs, and self-confidence in child-feeding practices (13). Interventions conducted at both community and health-facility levels—through direct support, education for mothers and families on correct IYCF practices, and training of health workers—have been shown to enhance the sustainability of IYCF implementation.

Previous studies have demonstrated that nutrition education can improve knowledge and attitudes related to child-feeding practices (14). However, conventional approaches such as lectures or printed booklets are often perceived as less engaging and may fail to produce lasting impressions (15). The Emotional Demonstration (Emo-Demo) method has emerged as an innovative, emotion-based, and participatory approach designed to internalize nutrition messages through direct experience and enjoyable interaction. Evidence from several low- and middle-income settings indicates that this method is more effective in promoting behavioral change compared with traditional nutrition education strategies (16).

Considering the persistent burden of stunting in Samarinda, East Kalimantan, the strong influence of local determinants—particularly inappropriate IYCF practices—and survey findings indicating low maternal knowledge, this study was designed to examine the effect of IYCF education using the Emotional Demonstration method on mothers' knowledge and attitudes, compared with printed media (Booklet *PINTAR*), in the service area of Mangkupalas Primary Health Center. This study aims to provide localized evidence on the effectiveness of emotion-based and demonstration-oriented educational approaches as practical strategies to strengthen IYCF practices within primary health care services.

METHODS

Study Design and Setting

This study employed a quasi-experimental design using a pretest–posttest control group approach. The research was conducted from 26 June to 7 July 2025 in the service area of Mangkupalas Primary Health Center, Samarinda, Indonesia. The intervention group received Infant and Young Child Feeding (IYCF) education using the Emotional Demonstration (Emo-Demo) method entitled "My Complementary Feeding and Meal Schedule", while the control group received nutrition education using the Booklet *PINTAR* (Innovative Nutrition Education for Responsive Child Growth).

Participants and Sample Size

The study population consisted of all mothers with children aged 6–23 months residing in the Mangkupalas Primary Health Center catchment area. The sample size was initially guided by the Federer formula $(n-1)(t-1) \geq 15$, which indicated a minimum of 16 participants per group. While this formula provided a baseline, the resulting sample size of n=17 per group is relatively small for a community-based trial, which may affect the statistical power and generalizability of the results.

Intervention

The intervention group participated in two IYCF education sessions using the Emo-Demo method, while the control group participated in two IYCF education sessions delivered through the Booklet *PINTAR*. All educational sessions were conducted face-to-face in small groups and were facilitated by the researcher and trained enumerators.

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Outcome Measurement

The primary outcomes of this study were mothers' knowledge and attitudes regarding Infant and Young Child Feeding (IYCF). Data were collected using a structured questionnaire administered before the intervention (pretest) and after the intervention (posttest). Knowledge was assessed based on the proportion of correct responses and categorized as good (≥76%), moderate (60–75%), or poor (<60%). Attitudes were measured using a Likert scale and classified as positive (76–100%), moderate (56–75%), or negative (<55%).

Data Collection

Data collection was conducted in several stages. The researcher first explained the study objectives and obtained written informed consent from all participants. Respondents then completed the pretest questionnaire, followed by the educational intervention according to their assigned group, and subsequently completed the posttest questionnaire. Secondary data on the number of children under five were obtained from the e-PPGBM system (electronic Community-Based Nutrition Recording and Reporting).

Instrument Validity and Reliability

Validity and reliability testing of the questionnaire was conducted among 30 respondents in Mangkupalas Subdistrict. Construct validity was assessed using Pearson correlation, with items considered valid when the calculated correlation coefficient exceeded the critical value (r-table = 0.361; $p < 0.05$). A total of 12 items were found to be valid in the knowledge questionnaire and 13 items in the attitude questionnaire. Reliability was evaluated using Cronbach's alpha, yielding values of 0.659 for knowledge and 0.667 for attitudes, indicating acceptable internal consistency.

Data Analisis

Data were analyzed using SPSS version 26. Univariate analysis was performed to describe respondent characteristics and the distributions of variables. Bivariate analysis employed the Wilcoxon test to examine within-group changes and the Mann–Whitney test to compare outcomes between groups. Statistical significance was set at $p < 0.05$.

RESULTS

The respondent characteristics presented in Table 1 indicate that most mothers were within the productive age range of 20–35 years, with a higher proportion in the intervention group (88.2%) than in the control group (70.6%). In terms of parity, the intervention group predominantly had ≤2 children (52.9%), whereas the majority of mothers in the control group had more than two children (58.8%). Marked differences were observed in educational attainment and household income. Both paternal and maternal education levels in the intervention group were largely concentrated at secondary and tertiary levels, while the control group was dominated by respondents with primary education. In addition, most households in the control group had low income (88.2%), whereas the intervention group was primarily composed of families with high income levels (64.7%).

Regarding maternal age at marriage, most mothers in the intervention group married at ≥20 years (58.8%), whereas early marriage (<20 years) was more common in the control group (52.9%). A similar pattern was observed for maternal age at first childbirth, where the majority of mothers in the intervention group delivered their first child between 20 and 35 years of age (76.5%), compared with 64.7% in the control group. Maternal age at last childbirth also tended to be more optimal in the intervention group, with 82.4% giving birth at 20–35 years, compared with only 52.9% in the control group.

Table 1 Characteristics of Respondent

Characteristics	Control		Intervention	
	n	%	n	%
Maternal age (years)				
20-35	12	70.6	15	88.2
>35	5	29.4	2	11.8
Number of Children				
≤2	7	41.2	9	52.9
>2	10	58.8	8	47.1

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Characteristics	Control		Intervention	
	n	%	n	%
Father's Education				
Primary school	8	47.1	2	11.8
Junior high school	3	17.6	1	5.9
Senior high school	6	35.3	12	70.6
Higher education	0	0	2	11.8
Mother's Education				
No formal education	0	0.0	1	5.9
Primary school	5	29.4	0	0.0
Junior high school	6	35.3	6	35.3
Senior high school	6	35.3	7	41.2
Higher education	0	0.0	3	17.6
Household Income				
Low	15	88.2	6	35.3
Moderate	1	5.9	0	0.0
High	1	5.9	11	64.7
Maternal Age at First Childbirth (years)				
<20	9	52.9	7	41.2
≥20	8	47.1	10	58.8
Maternal Age at First Childbirth (years)				
<20	6	35.3	4	23.5
20-35	11	64.7	13	76.5
Maternal Age at Last Childbirth (years)				
20-35	9	52.9	14	82.4
>35	8	47.1	3	17.6
Total	**17**	**100.0**	**17**	**100.0**

Table 2 demonstrates a marked improvement in knowledge levels in the intervention group compared with the control group. Prior to the intervention, most respondents in the intervention group were classified as having moderate (52.9%) or poor (47.1%) knowledge. Following the intervention, the proportion of respondents with good knowledge increased substantially to 70.6%. In contrast, although a modest improvement was observed in the control group, a considerable proportion of respondents (41.2%) remained in the poor knowledge category after the intervention. These findings indicate that the intervention meaningfully improved respondents' knowledge.

Parental attitudes showed a comparable pattern. Before the intervention, the majority of respondents in both groups already demonstrated good attitudes (76.5% in the control group and 88.2% in the intervention group). After the intervention, the proportion of respondents with good attitudes increased in both groups, with a more pronounced improvement in the intervention group (94.1%) than in the control group (82.4%). This suggests that the intervention not only enhanced knowledge but also strengthened positive parental attitudes toward supporting appropriate nutritional practices for young children.

Table 2. Distribution of Parental Knowledge and Attitudes in the Control and Intervention Groups Before and After the Intervention

Variable	Control				Intervention			
	Pre		Post		Pre		Post	
	n	%	n	%	n	%	n	%
Knowledge								
Good	1	5.9	8	47.1	0	0	12	70.6
Moderate	6	35.3	2	11.8	9	52.9	5	29.4
Poor	10	58.8	7	41.2	8	47.1	0	0.0
Attitude								
Good	13	76.5	14	82.4	15	88.2	16	94.1
Moderate	3	17.6	2	11.8	2	11.8	1	5.9
Poor	1	5.9	1	5.9	0	0.0	0	0.0
Total	**17**	**100**	**17**	**100**	**17**	**100**	**17**	**100**

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Table 3 shows an increase in mean knowledge scores in both groups following the educational intervention. In the control group, the mean knowledge score rose from 57.35 ± 16.097 at pre-test to 72.00 ± 16.496 at post-test. In contrast, the intervention group, which received education using the Emotional Demonstration method, exhibited a greater improvement, with mean scores increasing from 62.71 ± 10.294 to 84.18 ± 8.819. These results indicate that while both educational approaches were effective in improving maternal knowledge, the Emotional Demonstration method yielded superior outcomes.

A similar pattern was observed for attitudes. In the control group, the mean attitude score increased modestly from 79.53 ± 15.997 at pre-test to 83.24 ± 13.576 at post-test. Meanwhile, the intervention group demonstrated a more pronounced improvement, with mean attitude scores rising from 82.06 ± 8.948 to 91.29 ± 7.597 after receiving education through the Emotional Demonstration approach. These findings suggest that emotionally oriented educational strategies are more effective than the PINTAR booklet in fostering positive attitudinal changes among mothers of young children.

Table 3. Mean Knowledge and Attitude Scores in the Control and Intervention Groups Before and After IYCF Education

Group	Control					Intervention				
	n	Min Score	Max Score	Mean	SD	n	Min Score	Max Score	Mean	SD
Knowledge										
Pre-test	17	33	83	57.35	16.097	17	42	75	62,71	10.294
Post-test	17	50	92	72.00	16.496	17	75	100	84.18	8.819
Attitude										
Pre-test	17	46	92	79.53	15.997	17	62	100	82.06	8.948
Post-test	17	46	100	83.24	13.576	17	69	100	91.29	7.597

The Wilcoxon signed-rank test results presented in Table 4 indicate a statistically significant effect of nutrition education on maternal knowledge scores in both the control and intervention groups. In the control group, knowledge scores increased significantly after the intervention ($p = 0.001$). A stronger improvement was observed in the intervention group, where knowledge scores showed a highly significant increase following education using the Emotional Demonstration method ($p = 0.000$). These findings suggest that both the *PINTAR* booklet and the Emotional Demonstration approach were effective in enhancing mothers' knowledge of infant and young child feeding (IYCF); however, the Emotional Demonstration method produced a greater effect.

In contrast, different patterns were observed for the attitude variable. In the control group, no statistically significant change in attitude was detected after the intervention ($p = 0.440$), indicating that education delivered through the *PINTAR* booklet alone was insufficient to meaningfully influence maternal attitudes. Conversely, the intervention group demonstrated a significant improvement in attitude scores following education using the Emotional Demonstration method ($p = 0.001$). This result underscores the greater effectiveness of emotionally based educational approaches in promoting positive attitudinal change among mothers of young children compared with conventional booklet-based education.

Table 4. Effect of IYCF Education on Maternal Knowledge and Attitudes in the Control and Intervention Groups

Group	Variable	Compparison	Negative Ranks	Positive Ranks	Ties	p
Control	Knowledge	Post – Pre	1	15	1	0.001*
Intervention	Knowleddge	Post – Pre	0	16	1	0.000*
Control	Attitude	Post – Pre	2	6	9	0.440
Intervention	Attitude	Post – Pre	0	15	2	0.001*

The Mann–Whitney U test results presented in Table 5 indicate a difference in the mean rank of maternal knowledge scores between the group receiving IYCF education through the *PINTAR* booklet (mean rank = 14.56) and the Emotional Demonstration method (mean rank = 20.44). However, this

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difference did not reach statistical significance (p = 0.076), suggesting that both educational approaches were comparably effective in improving mothers' knowledge of infant and young child feeding.

In contrast, a statistically significant difference was observed for the attitude variable. The mean rank of attitude scores was lower in the *PINTAR* booklet group (14.12) than in the Emotional Demonstration group (20.88), with a p-value of 0.035. This finding indicates that the Emotional Demonstration method was more effective than booklet-based education in strengthening positive maternal attitudes toward appropriate infant and young child feeding practices.

Table 5. Differences in Maternal Knowledge and Attitudes Based on IYCF Educational Media

Variable	Educational Media	Mean Rank	*p*
Knowledge	*PINTAR* Booklet	14.56	0.076
	Emotional Demonstration	20.44	
Attitude	*PINTAR* Booklet	14.12	0.035*
	Emotional Demonstration	20.88	

DISCUSSION

Effect and Effectiveness of IYCF Education on Maternal Knowledge

The findings of this study demonstrate that both IYCF educational media—the *PINTAR* booklet and the Emotional Demonstration (Emo Demo) method—significantly improved maternal knowledge among mothers of young children, with p-values of 0.001 and 0.000, respectively. These results are consistent with evidence from Ethiopia showing that nutrition education interventions delivered through community and health-facility platforms can enhance key feeding practices, including early initiation of breastfeeding and dietary diversity of complementary foods (17). In the control group, the mean knowledge score increased from 57.35 at pre-test to 72.00 at post-test. A greater improvement was observed in the intervention group, where the mean score rose from 62.71 at baseline to 84.18 following the intervention.

The Emotional Demonstration approach resulted in a greater increase in mean rank knowledge scores than the *PINTAR* booklet. This finding aligns with a study conducted in Bogor by Kirana Ayu Palupi (18), which reported that Emotional Demonstration significantly enhanced maternal knowledge regarding infant and young child feeding schedules, although it did not yield a measurable effect on attitudes. Educational attainment has also been recognized as an important determinant of knowledge acquisition (19). In the present study, parents in the intervention group generally had higher levels of formal education than those in the control group. Higher educational background may facilitate the integration of new information with prior knowledge and caregiving experience, particularly in relation to child feeding practices.

Previous studies have shown that mothers with lower educational levels are still able to gradually absorb new information when appropriate educational strategies are applied (20). Although most mothers in this study had completed senior high school, the observed improvement in knowledge scores suggests that mothers remain receptive to new information and can progressively develop a better understanding of appropriate infant and young child feeding practices.

Another relevant observation concerns the demographic profile of the respondents, in which the majority were within the 20–35-year age range. This productive age group provides both biological and psychological support for more effective reception and processing of new information, as observed in the field. Women in this age range generally demonstrate strong cognitive capacity, greater openness to innovation, and stronger motivation to improve their knowledge, particularly regarding infant and young child feeding practices.

Emotional Demonstration (Emo Demo) is a communication-based approach designed to promote behavioral change among mothers and/or caregivers regarding infant and young child feeding practices. Developed by the Global Alliance for Improved Nutrition (GAIN), this approach aims to strengthen IYCF behavior change through interactive methods, while reducing reliance on one-way information delivery or conventional counseling alone (21). During Emo Demo activities, participants do not merely receive key messages about IYCF, but also observe demonstrations supported by visual aids and engage in hands-on learning. The messages delivered through Emo Demo are intentionally simplified to enhance

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comprehension, thereby encouraging mothers and caregivers to translate the information into practice (21).

The findings of this study indicate that Emo Demo is more effective at improving knowledge because it integrates emotional engagement with interactive learning, thereby addressing both the affective and cognitive domains of participants. The strength of the Emo Demo approach lies in its participatory nature, the use of games and visual demonstrations, and the delivery of emotionally resonant and memorable messages. Similar advantages have been reported in the GAIN Baduta programs implemented in Indonesia and Mozambique (22). In contrast, the *PINTAR* booklet offers distinct advantages as an educational medium that can be taken home, read repeatedly, and used as a long-term reference by mothers and their families, as observed in field practice. This characteristic supports better information retention after training sessions end, as written materials can be revisited whenever needed. Nevertheless, the *PINTAR* booklet remains effective and provides practical added value as a tangible reminder that supports the continuity of learning beyond the training period.

Effect and Effectiveness of IYCF Education on Maternal Attitudes

The findings of this study indicate that the Emotional Demonstration (Emo-Demo) method was more effective in influencing maternal attitudes toward infant and young child feeding than the *PINTAR* booklet, as reflected by p-values of 0.001 and 0.440, respectively. In the control group, which received education solely through the booklet, the improvement in attitudes was not statistically significant. In contrast, mothers in the intervention group who received Emo-Demo–based education demonstrated a significant positive change in attitudes following the intervention. These results suggest that attitude formation is shaped not only by cognitive factors such as knowledge, but also by affective components and direct experiential engagement.

The observed attitudinal changes in the Emo-Demo group can be interpreted through David A. Kolb's Experiential Learning Model, which posits that individuals are more likely to internalize messages when they are actively involved in meaningful experiences that elicit emotional engagement. Within the Emo-Demo approach, mothers did not merely listen to or read information; they actively participated through demonstrations and simulations. This process fostered empathy, emotional involvement, and intrinsic motivation, thereby facilitating deeper and more sustained changes in attitudes toward child feeding practices (23).

Furthermore, the Health Belief Model explains that attitude formation is strongly influenced by perceived benefits, perceived barriers, and motivational cues, all of which can be enhanced through direct experience and emotional involvement (24). The findings of this study are consistent with international evidence demonstrating that entertainment-education and emo-demo–based approaches play a substantial role in raising awareness, strengthening message internalization, and promoting attitudinal change, particularly in nutrition interventions conducted in low- and middle-income countries (25). By engaging emotional responses, mothers not only comprehend health messages cognitively but are also more inclined to translate them into concrete feeding practices.

Several studies support the findings of the present research. A community-based study in Ethiopia conducted by Teshome et al. (2020) demonstrated that large-scale nutrition education focusing on legume- and cereal-based complementary feeding significantly improved mothers' knowledge, attitudes, and practices (KAP). The study emphasized that intensive training of health workers was a critical determinant of intervention success, as health personnel play a direct role in delivering accurate nutrition messages and providing ongoing support to mothers in daily feeding practices (26). Similarly, a recent study in Indonesia by Intiyati et al. (2024) reported that emotionally based educational approaches were more effective in fostering positive maternal attitudes toward infant and young child feeding practices than printed educational media (27).

Conversely, although booklet-based education has been shown to improve knowledge, its impact on attitude change remains limited. This limitation may be attributed to the static nature of printed materials, which primarily convey information through text and images without eliciting emotional engagement. According to Siqueira et al. (2022), drawing on the Theory of Planned Behavior, attitude change is strongly influenced by beliefs and internal motivation developed through social and emotional

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experiences. In this context, printed media such as booklets are better positioned as supportive reminder tools rather than as primary instruments for shaping attitudes (28)

The findings of this study carry important implications. Attitude change represents a critical transitional stage preceding behavioral change. Positive maternal attitudes toward infant and young child feeding are likely to enhance adherence to appropriate feeding practices, thereby contributing to stunting prevention and improved child nutritional status. From a practical perspective, these results underscore the need to integrate emotionally engaging and participatory approaches into nutrition education programs at community health posts (*Posyandu*) and primary health centers (*Puskesmas*). Such integration would ensure that interventions extend beyond knowledge acquisition and effectively promote attitudinal and behavioral change in maternal feeding practices.

The novelty of this study lies in the application of the Emotional Demonstration (Emo-Demo) method in infant and young child feeding (IYCF) education, directly compared with the Booklet *PINTAR* as an educational medium within the service area of the Mangkupalas Primary Health Center. Most previous studies have focused primarily on knowledge improvement, whereas this study also examined attitude change as a critical indicator of successful nutrition education. Moreover, the integration of an emotional approach into nutrition education remains relatively limited in the Indonesian context, making this study a meaningful contribution from both scientific and practical perspectives.

This study has several strengths. First, the educational intervention was delivered through face-to-face sessions in small groups, which enhanced interaction between facilitators and participants. Second, the Emo-Demo method represents an innovative approach by explicitly engaging emotional components, which are rarely emphasized in community-based nutrition education. Third, the predominance of respondents within the productive age range (20–35 years) increases the relevance of the findings to the primary target population of national nutrition programs.

Study Limitations

This study has several limitations that should be acknowledged. First, the small sample size (n=17 per group) may limit the robustness of the statistical conclusions. Second, the non-randomized group allocation led to significant socioeconomic and educational disparities between the control and intervention groups. Since higher education and income are known predictors of better health literacy, these factors act as major confounders. Therefore, the superior results observed in the intervention group may be partly due to these baseline advantages rather than solely to the Emo-Demo method.

CONCLUSION

Infant and young child feeding (IYCF) education delivered through the Emotional Demonstration (Emo-Demo) method was shown to be more effective in improving mothers' knowledge and attitudes regarding young children than printed media such as the Booklet *PINTAR*. While printed materials contributed to knowledge gains, meaningful changes in attitudes were more evident when education involved interactive approaches that engaged emotions and direct experience. These findings highlight that educational strategies integrating both cognitive and affective components can produce more comprehensive effects on maternal health behavior.

As a follow-up, the Emo-Demo method has strong potential to be integrated into national programs such as the National Movement for the Acceleration of Nutrition Improvement and the National Stunting Reduction Strategy, particularly among high-risk populations. To support broader implementation, targeted training for posyandu cadres and health workers is essential to ensure effective application in the field. In addition, further innovation may be achieved by combining printed materials with the Emo-Demo approach, allowing mothers to benefit from both reusable written resources and emotionally engaging, hands-on learning experiences. Looking forward, the use of digital technologies—such as Emo-Demo–based applications or video content—may offer an effective solution to expand the reach of nutrition education, particularly in urban settings or areas with adequate internet access.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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