

The Effect of Health Education Using the Emo-Demo Method on Parental Behavior in Meeting Children's Nutritional Needs

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Abstract:

The importance of adequate nutrition for children in supporting optimal growth and development and the role of health education in influencing parental behavior regarding this matter is well recognized. This study aims to evaluate the impact of health education using the Emo-Demo method on parental behavior in fulfilling children's nutritional needs at Posyandu Kenari, Lumajang Regency. The method used in this study is a pre-experimental design with a pre-test and post-test one-group design approach. The population and sample comprised 35 parent respondents who participated in the research. Data collection was conducted using a questionnaire, and the data were analyzed using the Wilcoxon test. The results showed that most respondents, 19 individuals (54.3%), exhibited poor behavior in fulfilling their children's nutritional needs before the intervention. After receiving health education using the Emo-Demo method, parental behavior improved significantly, with 25 individuals (71.4%) displaying good behavior. Statistical analysis using the Wilcoxon test showed a p-value of 0.000, indicating a significant effect of the health education intervention on changing parents' behavior. These findings highlight the importance of interactive and sustained health education approaches to support behavioral changes in a public health context. Therefore, structured health education programs using innovative methods like Emo-Demo can be more widely implemented to improve overall child health.

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INTRODUCTION

Meeting children's nutritional needs during their growth stages is essential for their physical and mental development. Stunting, caused by inadequate nutrition, remains a serious public health problem. It hinders physical and mental growth and has long-term effects on a child's health and future productivity. Stunting is often linked to parental neglect in providing balanced nutrition, which can stem from a lack of knowledge, economic constraints, and unhealthy eating habits (Asefa et al., 2023; Sharma et al., 2023).

A significant challenge in addressing stunting is the lack of parental understanding of children's nutritional needs. Despite various health education programs, many parents still do not fully comprehend the importance of providing balanced nutrition (Agyen et al., 2023; Meher & Zaluchu, 2025). A preliminary study at Posyandu Kenari in Lumajang highlighted that many mothers have limited nutritional knowledge, contributing to unbalanced diets for their children.

The gap in knowledge and confusion about how to apply nutritional principles shows that merely providing information is insufficient. Parents may be aware of essential nutrition but struggle to implement it effectively. This highlights the need for more effective educational strategies that combine information and practical guidance to help parents make better nutritional decisions for their children's growth and development (Goins et al., 2024; Sartain & Ezemenaka, 2024).

One promising solution is the Emo-Demo method, which combines emotional engagement with education. This approach aims to enhance parents' understanding of child nutrition by connecting information with emotional experiences, making the content more memorable and impactful. The emotional component of the method has been shown to motivate behavior change, helping parents understand the importance of providing balanced nutrition for their children (Nengsih & Sartika, 2024; Rengganis & Katmini, 2021).

By incorporating emotional elements, the Emo-Demo method can foster deeper engagement and encourage behavior change in parents, leading to better nutritional choices for their children. This innovative approach could bridge the knowledge gap, improve the application of nutrition knowledge, and contribute to better child health outcomes. In the long term, it may help reduce stunting and promote healthier eating habits, supporting children's overall growth and development (Anggasari & Mardiyanti, 2020; Andriana et al., 2022).

METHOD

This study employs a pre-experimental design with a one-group pretest-posttest design to assess the impact of health education using the Emo-Demo method on parental behavior in providing nutrition to children. The research will involve parents of toddlers aged 2-5 years visiting Posyandu Kenari in Karangsejati Hamlet, Dadapan Village, Gucialit Subdistrict, Lumajang Regency, with a sample size of 35 respondents selected through purposive sampling. The study will be conducted over three sessions in June and July 2024. A questionnaire will be used to collect data on parental behavior regarding child nutrition before and after the intervention. The study uses univariate and bivariate analysis, with data analyzed using SPSS 11 and statistical tests such as the t-paired or Wilcoxon tests. The research aims to determine if the Emo-Demo method significantly improves parental behavior in meeting their children's nutritional needs.

The research follows ethical guidelines, with informed consent obtained from all participants, ensuring they understand the study's purpose and their right to withdraw at any time. The confidentiality of all participants will be maintained throughout the study. The study has received ethical approval with the number 0239/UNHASA/AK/SP.S-1/II/2024, confirming compliance with ethical standards.

RESULT

Most respondents at Posyandu Kenari, Lumajang Regency, are 25–40 years old, with 23 individuals (65.7%). All respondents are female. In terms of education, most have completed high school (65.7%), followed by those with an academic degree (14.3%) and higher education (14.3%). Regarding employment, 62.9% are unemployed, while 37.1% are employed. In terms of children's age, the majority are 2 years old (60%), followed by those aged 3 years (20%), 4 years (11.4%), and 1 year (8.6%). For children's nutrition, 54.3% receive formula milk with solid food (MPASI), while 45.7% are fed breast milk with solid food (MPASI).

Table 1. Characteristics of Respondents (n=35)

Characteristics	Frequency	Percentage (%)
Age		
< 25 years	9	25.7
25 – 40 years	23	65.7
41 - 50 years	3	8.6
Gender		
Female	35	100
Education		
Junior High School	2	5.7
High School	23	65.7
Academy degree	5	14.3
Higher Education	5	14.3
Occupation		
Employed	13	37.1
Unemployed	22	62.9
Child's Age		
1 year	3	8.6
2 years	21	60
3 years	7	20
4 years	4	11.4
Child's Nutrition		
Breast Milk + Solid Food (MPASI)	16	45.7
Formula Milk + Solid Food (MPASI)	19	54.3

Table 2. Parental Behavior in Fulfilling Children's Nutritional Needs Before and After Health Education Using the Emo-Demo Method at Posyandu Kenari, Lumajang Regency

Pre-Intervention	Post-Intervention			Total
	Good	Adequate	Poor	
Good	4 (11.4%)	0	0	4 (11.4 %)
Adequate	11 (31.4%)	1 (2.9%)	0	12 (34.3%)
Poor	10 (28.6)	8 (22.9%)	1 (2.9%)	19 (54.3%)
Total	25 (71.4)	9 (25.7%)	1 (2.9%)	35 (100%)

p-value=0.000

Based on the table, it can be concluded that there was a significant improvement in parental behavior regarding children's nutritional needs after receiving health education using the Emo-Demo method. Before the intervention, most parents (71.4%) had poor behavior in fulfilling their children's nutrition, with only 11.4% showing good behavior. After the intervention, the percentage of parents with good behavior increased significantly, although some parents still showed adequate behavior (34.3%), and a smaller proportion demonstrated poor behavior (22.9%). The statistical analysis (P-value = 0.000) indicates that the intervention significantly improved parental behavior.

DISCUSSION

Parental Behavior in Meeting Children's Nutritional Needs Before Health Education Intervention Using the Emo-Demo Method at Posyandu Kenari, Lumajang Regency

The research on parental behavior in Meeting children's nutritional needs at Posyandu Kenari, Lumajang District, shows that most respondents exhibited poor behavior in meeting their children's nutritional needs. Out of the total 35 respondents, 19 parents (54.3%) were categorized as having poor behavior, 12 parents (34.3%) had adequate behavior, and only 4 parents (11.4%) demonstrated

good behavior in fulfilling their children's nutritional requirements. This data indicates that many parents still need improved understanding and practice regarding child nutrition in this area.

The importance of fulfilling children's nutritional needs during their growth stages is a primary focus in improving future generations' well-being. Children require adequate nutrition to support their physical and mental development. The persistent issue of malnutrition, particularly marked by the high incidence of stunting in children, indicates that insufficient nutrition remains a serious problem. Stunting, which refers to children's impaired physical and mental growth, can have long-term impacts on their health and productivity in the future. This condition is largely caused by inadequate nutrition, which can be linked to parental neglect in providing sufficient and balanced nutrition (Nurprastiwi et al., 2024; Afandi et al., 2023; Ayunani et al., 2023).

Parental negligence in providing proper nutrition to children is a critical aspect that is exacerbating the nutrition problem. Several factors, such as a lack of knowledge about healthy foods, economic limitations, and unhealthy eating habits, contribute to inadequate nutrition. Parents who are unaware of their children's optimal nutritional needs tend to provide inadequate food, which triggers stunting and other health issues. Therefore, it is crucial to address this negligence through approaches that provide information, raise awareness, and bring about behavioral changes (Supadmi et al., 2024; Rudolfo et al., 2022).

The researcher believes that most respondents at Posyandu Kenari, Lumajang District, 19 out of 35 people (54.3%), exhibited poor behavior in meeting their children's nutritional needs before receiving health education. This phenomenon indicates significant challenges in the proper nutrition practices within the community. One possible contributing factor is the lack of knowledge regarding appropriate nutrition for children, where parents may not fully understand the importance of providing a balanced and nutritious diet. Additionally, socio-economic factors play a key role, as limited access to nutritious food or financial constraints may affect the food choices given to children.

Local customs and eating habits may also influence parents' understanding of nutrition. Certain unhealthy habits might be passed down through generations without adaptation to modern nutritional information. This situation becomes a serious concern because inadequate nutrition in children can negatively impact their growth and development, including the potential decline in cognitive abilities and long-term physical health. Therefore, it is essential to implement effective and sustainable health education programs that provide information and empower parents with practical skills to overcome barriers to meeting their children's nutritional needs. Comprehensive health education is expected to enhance parental knowledge and awareness and encourage better behavioral changes in providing children's nutrition, contributing to the improvement of children's health and well-being in the region.

Parental Behavior in Meeting Children's Nutritional Needs After Health Education Intervention Using the Emo-Demo Method at Posyandu Kenari, Lumajang Regency

After receiving health education using the Emo-Demo method at Posyandu Kenari, Lumajang Regency, there was a significant improvement in parental behavior regarding children's nutritional needs. Of the 35 respondents, 25 parents (71.4%) demonstrated good behavior, a marked increase compared to the pre-intervention data. Nine parents (25.7%) showed adequate behavior, while only one parent (2.9%) remained in the poor behavior category. This result reflects the effectiveness of the Emo-Demo health education method in improving parental behavior regarding children's nutrition in the area.

Various health education programs have been implemented, but many have failed to achieve the desired level of effectiveness. For this reason, new methods, such as Emo-Demo, must be explored to address these challenges. The importance of children's nutrition in their growth and

development cannot be overlooked. Parental understanding of healthy eating patterns, food selection, and children's nutritional needs is key to creating an environment that supports optimal growth. The Emo-Demo health education method can serve as an innovative solution to convey this information, as it incorporates emotional aspects that can enhance memory retention and comprehension (Triana et al., 2022; Wardani et al., 2024)

The proposed solution is to involve parents in health education programs using the Emo-Demo method. Through this method, parents' understanding and awareness of children's nutrition is expected to increase. The selection of the Emo-Demo method is based not only on its educational aspects but also on its emotional elements, which can motivate behavior change. By providing strong emotional experiences, it is hoped that parents will be more motivated to implement positive changes in fulfilling their children's nutritional needs (Costa et al., 2023; Sofiatun & Deviantony, 2024).

The Effect of Health Education Using the Emo-Demo Method on Parental Behavior in Meeting Children's Nutritional Needs at Posyandu Kenari, Lumajang Regency

Based on the results in Table 3, a significant change in parental behavior regarding children's nutrition at Posyandu Kenari, Lumajang Regency, was observed after the health education intervention using the Emo-Demo method. Before the intervention, only four parents (11.4%) exhibited good behavior, but after the intervention, this number increased to 25 parents (71.4%). Previously, 12 parents (34.3%) exhibited adequate behavior, and after the intervention, 11 of them improved to the good behavior category, one remained in the adequate category, and none moved to the poor category. Of the 19 parents (54.3%) who initially had poor behavior, 10 improved to good after the intervention, eight became adequate, and only one remained in the poor category. The p-value of 0.000 indicates that this change is statistically significant, meaning that health education using the Emo-Demo method effectively improves parental behavior in fulfilling children's nutritional needs.

Health behavior changes are influenced by individuals' perceptions of health threats and the benefits of health actions taken. Health education at Posyandu increases parents' awareness of the importance of balanced nutrition for children's growth and development, thus enhancing their perception of the benefits of adopting good nutritional behaviors (Ramadhani et al., 2024; Britton et al., 2024).

Adopting new practices in society is influenced by effective communication and social support. In this context, the interaction and support from healthcare providers and Posyandu cadres encourage parents to adopt healthier eating patterns for their children. Before health education, parents might have lacked knowledge and information about the appropriate foods for their children, relying on old habits and inaccurate information. However, after receiving education, they became better able to understand the importance of nutritious foods, such as vegetables and fruits, and reduce the consumption of unhealthy processed foods (Andrade et al., 2024; Dzudzor & Gerber, 2023). Health education has a significant and positive impact, but consistent interventions and ongoing community support are needed to maintain these behavior changes sustainably. The success of this program demonstrates that structured and targeted community-based interventions can significantly improve public health behaviors and, therefore, should be widely implemented to achieve a more significant long-term impact on public health.

We believe the Emo-Demo intervention, which stands for "Emotional Demonstration," can effectively enhance awareness and nutritional practices among parents. The Emo-Demo method emphasizes an approach that is not only informative but also emotional, where participants are not only provided with nutrition information but also engaged in demonstrations that evoke empathy and emotional awareness. This technique allows parents to directly experience the positive impacts of

behavioral change on their children's health, motivating them to adopt better nutritional practices. With an interactive approach focused on emotional aspects, parents become more aware of their role in providing proper nutrition for their children. This reduces dependence on old habits and opens the door to integrating healthy eating practices into daily routines (Shofa et al., 2024; Palupi et al., 2024).

These changes demonstrate the positive impact of the Emo-Demo method, which not only increased the number of parents with good behaviors but also reduced the number with poor behaviors. This educational approach has successfully bridged the knowledge gap and provided the necessary tools for parents to make better decisions regarding their children's nutritional needs. Furthermore, this method allows participants to be more active in the learning process, creating an environment that supports the development of better new behaviors. This health education successfully drives substantial and significant behavioral changes within the community by involving active participation and social interaction in the learning process. This success emphasizes the importance of health education as an intervention and highlights the potential of the Emo-Demo method to be applied more widely in communities with similar needs.

CONCLUSION

The study shows that before health promotion, the students at Roudlotul Falah Islamic Boarding School exhibited poor health behaviors, such as smoking and improper handwashing. After the intervention, improvements were observed, with many students adopting healthier habits, like better eating and cleanliness practices. Although some still showed poor health behaviors, the promotion significantly impacted their health behaviors, enhancing knowledge, attitudes, and actions. The conclusion is that health promotion effectively improves students' health behaviors, prevents unhealthy practices, and promotes better hygiene and health habits. It is recommended that health promotion programs continue to be strengthened for sustained improvements.

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The health education intervention using the Emo-Demo method at Posyandu Kenari, Lumajang Regency, significantly improved parental behavior in meeting their children's nutritional needs. Before the intervention, most parents exhibited poor or inadequate behaviors regarding nutrition. However, after receiving education, there was a notable increase in parents demonstrating good nutritional practices, with a substantial decrease in those maintaining poor behavior. The success of this intervention highlights the effectiveness of the Emo-Demo method, which combines both informative and emotional elements to enhance parents' understanding and motivation to adopt healthier nutritional habits for their children. This approach bridged knowledge gaps and fostered active participation and social support, driving meaningful behavioral changes within the community. It underscores the importance of community-based health education in improving public health. This method has great potential for broader implementation in similar communities to achieve long-term health benefits.

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CONFLICT OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this research. All aspects of the study were conducted without any financial, personal, or professional influences that could have affected the objectivity and integrity of the research process and results.

REFERENCES

- Afandi, A. T., Kurniyawan, E. H., Cahyani, S. D., Fajriati, W. N., Oktaviana, A. D., Nur, K. R. M., & Kurniawan, D. E. (2023). The Effect of STH Worm Infection on the Nutritional Status of Farmers in the Agronursing Area: Literature Review. *Health and Technology Journal (HTechJ)*, 1(4), 427-436.
- Agyen, V. A., Annim, S. K., & Asmah, E. E. (2023). Neighbourhood mothers' education and its differential impact on stunting: Evidence from 30 Sub-Saharan African countries. *Social Science & Medicine*, 340, 116462. <https://doi.org/10.1016/j.socscimed.2023.116462>
- Andrade Batista, S., Stedefeldt, E., Batistela dos Santos, E., Yoshio Nakano, E., Cortez Ginani, V., & Braz Assunção Botelho, R. (2024). Understanding and evaluating risk perception, knowledge, and food safety self-reported practices of public-school students in Brazil. *Food Research International*, 196, 115027. <https://doi.org/10.1016/j.foodres.2024.115027>
- Andriana, A., Junita, E., Kristina, E., Herawaty, R., & Fahmi, Y. B. (2022). The Effect Of Emo-Demo Training On Knowledge And Skills Of Posyandu Cadres On'asi Only Enough'. *Jambura Journal of Health Sciences and Research*, 4, 8-14.
- Anggasari, Y., & Mardiyanti, I. (2020). The Effectiveness of Using Emodemo Methods on Knowledge of Pregnant Women's Nutritional Needs. *STRADA Jurnal Ilmiah Kesehatan*, 9(2), 1605-1610. <https://doi.org/10.30994/sjik.v9i2.506>
- Asefa, A., Girma, D., Kaso, A. W., Ferede, A., Agero, G., & Beyen, T. K. (2023). Prevalence of stunting and associated factors among under-five children in Robe Woreda, Arsi zone, Ethiopia. *International Journal of Africa Nursing Sciences*, 21, 100782. <https://doi.org/10.1016/j.ijans.2024.100782>
- Ayunani, Yessy Nur Endah Sary, Tutik Ekasari, & Nova Hikmawati. (2023). Effect of Supplementary Feeding on Weight Gain for Malnourished Toddlers Aged 6-59 Months. *Health and Technology Journal (HTechJ)*, 1(2), 133-138. <https://doi.org/10.53713/htechj.v1i2.19>
- Britton, B., Baker, A. L., Wolfenden, L., Wratten, C., Bauer, J., Beck, A. K., McCarter, K., Handley, T., & Carter, G. L. (2024). Five-Year Mortality Outcomes for Eating As Treatment (EAT), a Health Behavior Change Intervention to Improve Nutrition in Patients With Head and Neck Cancer: A Stepped-Wedge, Randomized Controlled Trial. *International Journal of Radiation Oncology*Biophysics*, 119(4), 1166-1170. <https://doi.org/10.1016/j.ijrobp.2024.01.205>
- Costa, S., Guambe, B., Boaventura, C., & Nordhagen, S. (2023). Leveraging Emotion for Behavior Change: Lessons from Implementation of the "Emo-Demo" Behavior Change Technique in Rural Mozambique. *Journal of Health Communication*, 28(sup2), 78-86.
- Dzudzor, M. I., & Gerber, N. (2023). Urban households' food safety knowledge and behaviour: Choice of food markets and cooking practices. *Journal of Agriculture and Food Research*, 14, 100728. <https://doi.org/10.1016/j.jafr.2023.100728>
- Goins, S. M., Thornton, S., Horne, E., Hoehn, B., Brush, E., Thamby, J., Hemesath, A., Cantrell, S., Greenwald, E., & Tracy, E. (2024). Educational Strategies in Pediatric Trauma Resuscitation Across Disciplines: A Scoping Review. *Journal of Surgical Research*, 298, 230-239. <https://doi.org/10.1016/j.jss.2024.03.015>

- Meher, C., & Zaluchu, F. (2025). Methods for stunting education in impoverished rural areas using illustrated modules in local languages. *MethodsX*, 14, 103086. <https://doi.org/10.1016/j.mex.2024.103086>
- Nengsih, W., & Sartika, T. (2024). The Influence Of Health Education Using Emo-Demo Videos On Knowledge Of Selecting Iron-Rich Foods Among Adolescent Girls In The Working Area Of Community Health Center. *Jurnal Endurance*, 9(2), 126-132. <https://doi.org/10.22216/jen.v9i2.2822>
- Nurprastiwi, A. G., Sasongko, N. A., Kurniawan, E. H., Nur, K. R. M., Afandi, A. T., & Kurniawan, D. E. (2024). The Impact of Farmer Families' Communication in Compliance Nutritional Needs among Toddlers. *Health and Technology Journal (HTechJ)*, 2(5), 543-554.
- Palupi, K. A., Irawan, A. M. A., Yusuf, A. M., Rahmawati, L. A., & Umami, Z. (2024). The Influence of Emo Demo on Mother's Knowledge and Attitudes in Providing Infant Feeding. *Journal of Health and Nutrition Research*, 3(2), 121-127.
- Ramadhani, D. N., Indrayani, T., & Tiara Carolin, B. (2024). The Influence of Video Media Health Education on Menstrual Hygiene Health Knowledge in Adolescent Girls . *Health and Technology Journal (HTechJ)*, 2(2), 134–138. <https://doi.org/10.53713/htechj.v2i2.160>
- Rengganis, A., & Katmini, K. (2021). Application of Theory of Planned Behavior on the Implementation of the Emo Demo Creation of Healthy PMT with Full Nutrition in Posyandu Gedang–Gedang Village Batuputih Sumenep. *Journal for Quality in Public Health*, 5(1), 19-26.
- Rudolfo, A., Ira Rahmawati, & Peni Perdani Julianingrum. (2022). The Description of Parents' Knowledge in Modifying Food Ingredients in Efforts to Prevent Stunting in Children in the Tugusari Agricultural Area. *Nursing and Health Sciences Journal (NHSJ)*, 2(4), 336-343. <https://doi.org/10.53713/nhs.v2i4.183>
- Sartain, A. F., & Ezemenaka, C. J. (2024). Educational strategies to promote college readiness in rural pre-nursing students. *Teaching and Learning in Nursing*. <https://doi.org/10.1016/j.teln.2024.07.026>
- Sharma, N., Shastri, S., & Shastri, S. (2023). Does urbanization level and types of urban settlements matter for child stunting prevalence in India? Empirical evidence based on nighttime lights data. *Cities*, 140, 104388. <https://doi.org/10.1016/j.cities.2023.104388>
- Shofa, M., Mujito, M., & Lundy, F. (2024). The effect of education using the emo-demo method on parents' knowledge and skills in preventing stunting. *Jurnal Cakrawala Promkes*, 6(2), 104-112.
- Sofiatun, & Deviantony, F. (2024). Shaping Healthy Beginnings: A Systematic Review on the Impact of Parenting Styles on Toddler Nutritional Status. *Nursing and Health Sciences Journal (NHSJ)*, 4(3), 348-355. <https://doi.org/10.53713/nhsj.v4i3.409>
- Supadmi, S., Laksono, A. D., Kusumawardani, H. D., Ashar, H., Nursafingi, A., Kusrini, I., & Musoddaq, M. A. (2024). Factor related to stunting of children under two years with working mothers in Indonesia. *Clinical Epidemiology and Global Health*, 26, 101538. <https://doi.org/10.1016/j.cegh.2024.101538>
- Triana, W., Razi, P., Veriza, E., & Sayuti, S. (2022). Learning Model Methods Emotional Demonstration (Emo Demo) in Prevention of Non-Communicable Diseases: Quasi-Experimental Study. *Nsc Nursing*, 4(4), 59-77.
- Wardani, V. D. M. K., Wahyuni, S., & Nuha, U. (2024). Development of a Module Based on the Emo-Demo Game to Increase the Community's Understanding of the Concept of Stunting. *Kesmas Indonesia*, 16(2), 86. <https://doi.org/10.20884/1.ki.2024.16.2.11054>