

Effect of Health Education on Mothers' Knowledge of Posyandu: A Pre-Post Study

Dewi^{1*}, Sumarmi², Anita Kartini^{H1}, Ernawati¹, Citra Ayu Saputri³

¹Midwifery Study Program, Stikes Tanawali Takalar

²Nursing Study Program, Stikes Tanawali Takalar

³Students of the Diploma Midwifery Study Program, Stikes Tanawali Takalar

Abstract

*Corresponding author:
Dewi, Midwifery Study
Program, Stikes
Tanawali Takalar
Email:
dewi15@gmail.com

Article info:
Received: 2025-03-17
Revised: 2025-04-23
Accepted: 2025-05-25

e-ISSN: 3047-6054
Volume 2(1): 47-51,
May 2025

Background: Posyandu is a community-based health service aimed at improving maternal and child health, organized with the active participation of the community.

Objective: This study aimed to assess the effectiveness of education on the benefits of Posyandu in improving the knowledge of mothers with toddlers aged 1–5 years.

Methods: A one-group pretest–posttest design was used. The study population consisted of all mothers of toddlers aged 1–5 years at Posyandu Cempaka, Campagaloe Village, within the working area of Campagaloe Health Center. A total of 32 respondents were recruited using total sampling. Knowledge levels were categorized as good, sufficient, or poor, and assessed before and after the educational intervention. Data were analyzed using the Wilcoxon signed-rank test.

Results: Before the intervention, 9 respondents (28.1%) had good knowledge and 23 respondents (71.9%) had sufficient knowledge. After the intervention, 18 respondents (56.2%) demonstrated good knowledge and 14 respondents (43.8%) had sufficient knowledge. Statistical analysis showed a significant improvement in knowledge scores after the intervention ($p < 0.001$).

Conclusion: Educational sessions significantly improved mothers' knowledge about the benefits of Posyandu. Strengthening regular health education activities by local health workers is recommended to further enhance maternal awareness and participation.

Keywords: Education; knowledge; posyandu; toddler mothers

Introduction

The Guidelines for Posyandu Services issued by the Ministry of Health (2023) define Posyandu as a community-managed, community-centered health service aimed at improving maternal and child health through empowerment and active participation. Its primary goals include supporting health development, strengthening communities, and improving access to essential health services, thereby contributing to reductions in maternal mortality (MMR) and infant mortality (IMR). Among its priority targets are toddlers, as early detection of growth faltering is critical to ensuring optimal development (Nurbaety, 2022). Regular weighing at Posyandu enables early intervention, while mothers who do not attend miss opportunities for vitamin A supplementation, counseling, and supplementary feeding for children with growth below the red line.

Posyandu activities, typically conducted monthly by trained cadres, remain uneven in coverage nationwide. In 2020, 108 districts/cities reported having at least 80% active Posyandu, with the highest proportion in East Java (55.3%) and the lowest in South Kalimantan (7.7%) (Ministry of Health, 2022). Nationally, active Posyandu development reached 47.67% in 2021, increasing to 65.95% in 2022, yet still falling short of the 2020–2024 RPJMN target (Ministry of Health, 2023). In South Sulawesi, active Posyandu coverage in 2020 was 66.90%, with Bantaeng District achieving 82.68% (South Sulawesi Provincial Health Office, 2022). The 2023

National Jamboree reported 5,641 active Posyandu against a 2023 target of 8,815, with at least 80% expected to be achieved by 2024 (Ministry of Health, 2023).

Previous research by Mayasari (2023) found that most mothers of toddlers with good knowledge were more likely to utilize Posyandu services, highlighting knowledge as a key determinant of participation. Within the Campagaloe Health Center area, there are 17 Posyandu serving 17 villages. Coverage of Posyandu visits reached 94.19% in 2023, up from 90.91% in 2022 and 90.41% in 2021. Although these figures exceed the 80% target, 5.81% of toddlers remain unreached (Campagaloe Health Center, 2024). Initial interviews with program coordinators identified Posyandu Cempaka in Campagaloe Village as having the lowest attendance, prompting various interventions, including home visit “sweeping” programs.

Methods

Study Design

This study employed a pre-experimental descriptive survey with a one-group pretest–posttest design. The aim was to assess changes in the knowledge of mothers of toddlers in the Posyandu Cempaka, Campagaloe Village, before and after health education on the benefits of Posyandu using leaflet media.

Samples

The study population comprised all mothers with children aged 1–5 years in the Posyandu Cempaka working area of the Campagaloe Health Center. A total of 32 mothers participated, selected through a total sampling (saturated sampling) approach.

Instruments

Data were collected using a structured questionnaire developed to measure mothers’ knowledge about Posyandu. The items covered topics such as the purpose of Posyandu, available services, and the importance of regular attendance. The questionnaire underwent content validity testing by two public health experts to ensure that all items were relevant and representative of the concept being measured. Reliability was assessed through a pilot test with a similar population, yielding a Cronbach’s alpha coefficient of 0.78, indicating acceptable internal consistency.

Data Collection

Respondents completed the questionnaire before and after the educational intervention. The education session, delivered using leaflet media, explained the benefits of Posyandu and encouraged active participation.

Data Analysis

Descriptive statistics were used to summarize respondents’ knowledge levels (good, sufficient, poor) before and after the intervention. Pretest and posttest results were compared to evaluate changes in knowledge, with results presented in tabular form.

Ethical Considerations

This study was approved by the Ethics Committee of the Campagaloe Health Center. All participants received an explanation of the study’s objectives, procedures, and their rights, including confidentiality and voluntary participation. Written informed consent was obtained from all respondents.

Results

Characteristic

Table 1 shows that most respondents were in the 21–35 years age group (63.5%), followed by those aged > 35 years (28.1%). The smallest proportion was in the ≤ 20 years group (9.4%).

Table 1. Mother's Age

| Age (Years) | n | % |
|-------------|----|------|
| ≤ 20 | 3 | 9,4 |
| 21-35 | 20 | 63,5 |
| > 35 | 9 | 28,1 |
| Total | 32 | 100% |

Source: SPSS Processed Data, 2024

Table 2 shows that most respondents had junior high school education (40.6%), followed by primary school (34.4%), and the fewest had senior high school education (25.0%).

Table 2. Mother's Education

| Education | n | % |
|--------------------|----|------|
| Primary School | 11 | 34,4 |
| Junior High School | 13 | 40,6 |
| Senior High School | 8 | 25,0 |
| Total | 32 | 100% |

Source: SPSS Processed Data, 2024

Table 3 shows that more respondents were unemployed (53.1%) than employed (46.9%).

Table 3. Work

| Work | n | % |
|-------------|----|------|
| Work | 15 | 46,9 |
| Not Working | 17 | 53,1 |
| Total | 30 | 100 |

Source: SPSS Processed Data, 2024

Variables studied

Table 4 shows that before education, most respondents had sufficient knowledge (71.9%) and only 28.1% had good knowledge. After the education session, the proportion with good knowledge increased to 56.2%, while those with sufficient knowledge decreased to 43.8%. This indicates a notable improvement in mothers' knowledge about the benefits of Posyandu after receiving health education.

Table 4. Distribution after and before education

| Knowledge | Education | | | |
|-----------|-----------|------|-------|------|
| | Before | | After | |
| | n | % | n | % |
| Good | 9 | 21,9 | 18 | 53,1 |
| Less | 23 | 71,9 | 14 | 43,8 |
| Total | 32 | 100 | 32 | 100 |

Source: SPSS Processed Data, 2024

Discussion

Knowledge Before Education

This study involved 32 respondents, with 23 mothers (71.9%) showing limited knowledge about Posyandu prior to the intervention. On the question regarding the purpose of Posyandu, 75% answered correctly, indicating that 25% still lacked awareness. Younger mothers tended to have less information, consistent with the assumption that limited life experience and exposure can reduce health knowledge. Before receiving education about Posyandu benefits, some respondents also answered negative statements correctly, suggesting partial understanding.

These findings align with Nugrahaeny and Malik (2023), who state that information delivery can be carried out using both didactic and Socratic methods. Didactic methods involve

lectures, posters, print, and electronic media, while Socratic methods include discussions, demonstrations, and remote communication. Notoatmodjo (2018) emphasizes that educational media visual, audio, and audiovisual play an important role in enhancing understanding.

In the pretest, nine respondents already demonstrated good knowledge, possibly due to prior exposure to Posyandu information. Most of these respondents (three and six individuals) had a senior high school education. This supports the view that higher education levels enhance one's ability to process and understand information, as individuals with junior or senior high school education can better comprehend health-related materials.

Knowledge After Providing Education

Following health counseling through leaflet media, the proportion of mothers with good knowledge increased from 28.1% to 56.2%. According to Notoatmodjo (2018), knowledge acquisition results from sensory perception particularly through vision and hearing making the choice of leaflet media relevant for this intervention.

These results are consistent with Ristiowati and Safitri (2024), who found that e-leaflet education significantly improved maternal knowledge and attitudes regarding Posyandu in Kumbara Utama Village ($p = 0.000$, $p < 0.005$). Their study confirmed that structured educational interventions can effectively increase awareness and understanding among mothers.

The present study also found that 40.6% of respondents had a junior high school education. Education level has a notable effect on knowledge acquisition, as supported by Mubarak (2019), who notes that higher education facilitates access to information and improves comprehension. The increase in posttest scores suggests that mothers paid attention to leaflet content and the explanations provided, contributing to better understanding.

However, 43.8% of respondents still showed only adequate knowledge after education. The researcher assumes this may be due to incomplete comprehension of the materials or distractions during the session, such as fussy children and the desire to leave early. Despite these barriers, the majority still achieved improved knowledge.

Importance of Health Education and Comparison with Previous Studies

Health education for mothers of toddlers is essential, as improved knowledge about Posyandu has been shown to increase participation in child health programs. Widyastuti et al. (2021) demonstrated that effective education enhances maternal participation in Posyandu activities, positively impacting children's health outcomes. Similarly, Sari and Pratiwi (2023) reported that active community participation increases awareness of child health, reduces infant mortality, and improves nutritional status.

Setiawan and Lestari (2022) found that mothers with accurate information about Posyandu are more likely to bring their children for health services. Furthermore, Hidayati and Rahmawati (2024) emphasized that strong communication skills among health workers build maternal trust in health services, leading to greater engagement with Posyandu.

Overall, the present findings are consistent with prior research, supporting the role of targeted health education particularly through accessible media like leaflets in increasing maternal knowledge and encouraging active participation in Posyandu services.

Conclusion

The findings highlight the effectiveness of simple, accessible educational tools such as leaflets in improving maternal knowledge and potentially increasing participation in Posyandu activities. Health centers should adopt regular, targeted counseling sessions using engaging and easy-to-understand media. Policymakers can also integrate similar educational approaches into community health programs to strengthen early childhood health services. Future research should explore other factors influencing maternal knowledge and assess the long-term impact of different educational strategies on Posyandu attendance and child health outcomes.

References

- Hidayati, N., & Rahmawati, D. (2024). Effective communication in health services: Increasing maternal participation in the Posyandu program. *Journal of Nursing and Health Sciences*, 12(1), 75–82.
- Irmawati, I., Amin, K. ., & Haruna, S. R. . (2024). Overview of the Level of Knowledge of Posyandu Cadres about Monitoring the Growth of Toddler Development. *Omni Health Journal*, 1(1), 07-13. <https://omnijournal.id/index.php/health/article/view/10>
- Mayasari, E., Pratiwi, N., & Sari, L. (2023). Overview of knowledge of mothers with toddlers on the utilization of Posyandu in Village Four work area centers of the Kuok Health Center in 2022. *Journal of Neuroscience*, 7(1), 776–778.
- Ministry of Health of the Republic of Indonesia. (2022). *Guidelines for the implementation of stimulation, detection, and early intervention of child growth and development at the basic health service level*. Ministry of Health of the Republic of Indonesia.
- Ministry of Health of the Republic of Indonesia. (2022). *Performance report of the Ministry of Health*. Retrieved March 25, 2024, from <https://kesmas.kemkes.go.id/resources/download/laporan-kinerja-ditjen-kesmas-2022.pdf>
- Ministry of Health of the Republic of Indonesia. (2023). *Posyandu service guidebook*. Ministry of Health of the Republic of Indonesia.
- Mubarak, W. I. (2019). *Health promotion for midwifery*. Medical Salon.
- Noperdi, N., Murwati, N., & Rustandi, H. (2023). The effect of health counseling on mothers' knowledge of Posyandu in the working area of the Padang Serai Health Center, Bengkulu City in 2023. *Journal of Nursing and Public Health*, 11(2), 565–569.
- Notoatmodjo, S. (2018). *Health research methodology*. Rineka Cipta.
- Nugraheni, N., & Malik, A. (2023). The role of Posyandu cadres in preventing stunting cases in Ngijo Village, Semarang City. *Lifelong Education Journal*, 3(1), 45–54.
- Nurbaety. (2022). *Preventing stunting in toddlers aged 24–59 months*. NEM Publishers.
- Ristiowati, R., & Safitri, Y. (2024). The effect of providing education through e-leaflet media on mothers' knowledge and attitudes about the Posyandu for toddlers in Kampung Kumbara Utama, Kerinci Kanan District, Siak Regency, Riau Province in 2024. *JUBIDA: Journal of Midwifery*, 3(1), 20–31.
- Sari, N. A., & Pratiwi, D. (2023). Community participation in Posyandu: The key to improving children's health outcomes. *Journal of Health Promotion*, 8(1), 45–52.
- Setiawan, A., & Lestari, P. (2022). The role of health education in increasing maternal awareness of toddler health services. *Journal of Maternal and Child Health*, 7(3), 100–108.
- South Sulawesi Provincial Health Office. (2022). *Health profile of South Sulawesi Province 2022*.
- Widyastuti, N., Prabowo, S., & Rahayu, S. (2021). The impact of health education on mothers' participation in Posyandu activities. *Indonesian Journal of Public Health*, 14(2), 150–158.