

Enhancing Mothers' Involvement in Child Health Service: A Macro-Level Intervention in RT 03/ RW 05, Pabelan

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Abstract

This study addresses the low participation of mothers in accompanying their children to Posyandu (integrated health service posts) in RT 03/RW 05, Pabelan Village. Observations and interviews revealed that many mothers are unable or unwilling to attend due to work, household fatigue, or assumptions that childcare duties can be delegated to others. These behaviors impact the quality of child health services, including missed emotional support, reduced direct parental involvement, and decreased access to vital health information. Using Bronfenbrenner's ecological systems theory as a framework, the researchers conducted a macro-level intervention in the form of structured health counseling sessions targeting mothers of young children. Data collection methods included semi-structured interviews, non-participant observation, and community advocacy. The intervention focused on increasing awareness of the importance of maternal presence at Posyandu through community-based education, leaflets, and collaboration with local leaders and cadres. The results showed increased maternal knowledge, improved attitudes toward Posyandu, and strengthened peer support among mothers. The study concludes that community-oriented health education can effectively enhance maternal involvement, which is essential for ensuring optimal child development and access to early health services.

Keywords: community empowerment; maternal participation; participatory action research; posyandu

Introduction

Child health service delivery in Indonesia relies heavily on community-based platforms such as Posyandu (Pos Pelayanan Terpadu), which serve as the frontline for growth monitoring, immunization, counseling, and early childhood development programs. While Posyandu has achieved widespread coverage at the national scale, actual maternal participation i.e., mothers accompanying their under-five children to Posyandu sessions remains below desired levels in many regions, undermining its intended impact.

For instance, in North Aceh (Aceh Utara), household surveys documented that only 34%–45% of mothers consistently attended Posyandu, well short of the national coverage goal of 80–100% (Titaley et al., 2016). Logistic regression analysis in that study demonstrated that household income, maternal satisfaction with service quality, attitudes toward Posyandu benefits, and intention to attend were significant predictors of participation. Interestingly, lower-income households were more likely to attend than higher-income ones, suggesting that reliance on free community services substitutes for paid alternatives among disadvantaged groups. Satisfaction and intention emerged as strong correlates: mothers who believed in the value of Posyandu, and intended to attend monthly, did so more reliably (Titaley et al., 2016).

Beyond socio economic and attitudinal factors, the quality of service delivery particularly the effectiveness of growth monitoring and nutritional counseling by cadres has been identified as a critical barrier. Many Posyandu cadres receive minimal or irregular training, limiting their ability to communicate effectively and offer meaningful guidance to mothers during sessions (Titaley et al., 2016). As observed, the act of weighing and recording child growth data without accompanying counseling reduces the perceived value of Posyandu visits, thereby weakening maternal participation in subsequent months.

Complementary studies in various Indonesian regions have confirmed that health education interventions can significantly improve maternal involvement. A quasi experimental study in Pekanbaru found that a maternal and child health handbook campaign increased maternal knowledge from 23.3% in the control group to 70% in the intervention group, with participants reporting high perceived usefulness of the campaign (Agrina, Suyanto, & Arneliwati, 2016). Similarly, in Blitar, structured educational sessions promoted a statistically significant increase in mothers' attendance at Posyandu (when tested via Wilcoxon signed-rank test, $p = 0.05$). However, knowledge gains alone often fail to translate into consistent attendance unless accompanied by broader contextual support. A multilevel analysis of pregnant women in West Kalimantan showed that healthy prenatal behavior was significantly associated not only with maternal education and household income, but also with community and family support, local leadership encouragement, and proximity to

Posyandu (Murdikawati et al., 2018). These contextual supports suggest that the Posyandu ecosystem extends beyond individual choice to include systemic and community-level influences.

Supporting this perspective, longitudinal data from the Indonesia Family Life Survey reveal that maternal involvement in community organizations predicts better child health outcomes especially for children from socioeconomically disadvantaged families (Grootaert et al., 2015; Nugroho et al., 2015; As cited in Gertler et al., 2015). Mothers with access to social capital via community engagement can access resources, information, and psychosocial support otherwise unavailable (Gertler et al., 2015). This underscores the role of community participation in mediating maternal engagement with child health services.

In rural community health management programs across Indonesia, community case management (CCM) has also been implemented to extend infant care access in areas lacking adequate facility-based services. Interviews with mothers who received CCM in East Kalimantan reported increased knowledge of infant danger signs, improved care-seeking behaviors, and more confidence in managing illnesses at home (Hill et al., 2016). Mothers appreciated the perceived increase in access and relevance of care, although some reported cultural mismatches suggesting the need for culturally sensitive adaptations (Hill et al., 2016).

Furthermore, peer-based parenting models have shown promising results. A 2023 quasi-experimental study on parenting peer education (PPE) among young mothers in Central Java found significant improvements in mothers' self efficacy, caregiving behavior, and correspondingly positive outcomes for children's cognitive, motor, and language development (Rokhanawati et al., 2023). These findings highlight the potential of peer education and shared learning to boost maternal engagement and child development outcomes.

Despite the wealth of interventions focusing on education or peer support, interventions at the macro-level targeting the wider social-structural environment of Posyandu have been relatively neglected in the literature. Specifically, there is little evidence on programs that simultaneously involve mothers, cadres, local leaders, and community advocacy to sustain Posyandu attendance and maternal involvement. Studies that do exist often assess components in isolation e.g., training cadres without engaging mothers in community forums, or distributing educational materials without involving village leadership. As a result, sustained behavior change remains elusive.

In Pabelan (RT 03/RW 05), preliminary observations indicate that low maternal attendance arises from a combination of factors: mothers are busy with work or household chores, assume childcare responsibilities can be delegated, underestimate the importance of physical presence at Posyandu, or perceive the service as low value if no counseling is offered. These local patterns resonate with findings elsewhere, but require contextualized intervention models that address both individual and community-level drivers.

In summary, the emerging issues facing maternal participation in Posyandu include: Low attendance rates despite a functioning service infrastructure, Service quality deficits, particularly in counseling and cadre competence, Knowledge alone insufficient attendance is shaped by social, economic, and logistical factors, Evidence gap in integrated, macro-level community interventions involving multi-stakeholder engagement, Need for localized implementation research, tailored to village-specific contexts like Pabelan. This study aims to fill these gaps by evaluating a macro-level, ecologically informed intervention in Pabelan (RT 03/RW 05), combining health education, cadre training, leadership advocacy, and peer support strategies.

Maternal involvement in early childhood health services, particularly Posyandu (Integrated Service Posts), is vital for ensuring child growth and development outcomes in Indonesia. Despite extensive Posyandu coverage, consistent participation by mothers remains suboptimal in many regions, a trend that has prompted a variety of studies to investigate the underlying factors and potential solutions. Existing literature has identified a combination of individual, interpersonal, and structural determinants influencing maternal attendance.

Research by Titaley et al. (2016), conducted in Aceh Utara, revealed that only 34%–45% of mothers consistently brought their children to Posyandu. The study identified that household income, satisfaction with services, maternal attitudes, and the intention to attend were significant predictors of participation. Interestingly, mothers from lower-income households tended to rely more heavily on Posyandu than wealthier mothers, who often sought services from private clinics. However, the perceived quality of service emerged as a critical motivator across socio-economic strata. This study pointed out that many mothers viewed the growth monitoring activity as insufficient without accompanying counseling, which was often lacking due to undertrained cadres. Cadres, who are community health volunteers, play an essential role in the delivery of Posyandu services, but their limited training and lack of support significantly hinder their ability to offer meaningful health counseling (Titaley et al., 2016).

Further studies have explored the impact of cadre capacity and health education on maternal attendance. For instance, Eijkman et al. (2015) assessed a participatory training program for Posyandu cadres in West Java and found that such training improved knowledge, confidence, and counseling skills. The intervention included role-play exercises and the use of counseling cards, which enhanced cadres' communication effectiveness. As a result, mothers reported improved trust in cadre-provided services. Similarly, a pre-experimental study in Blitar demonstrated that structured health education programs for mothers significantly increased Posyandu attendance, as measured by pre- and post-intervention comparisons using the Wilcoxon test ($p = 0.05$) (Kusumawati, 2019).

In Pekanbaru, Agrina, Suyanto, and Arneliwati (2016) implemented a campaign using the Maternal and Child Health Handbook. This campaign effectively increased mothers' knowledge about child health services, with knowledge levels

rising from 23.3% to 70% in the intervention group. Moreover, 96.7% of participants rated the campaign as highly beneficial. These findings confirm that improving maternal knowledge through structured education can yield positive behavioral outcomes.

Despite such encouraging results, other studies suggest that knowledge alone may not guarantee behavioral change. Murdikawati et al. (2018), through a multilevel analysis in West Kalimantan, found that maternal prenatal health behavior was influenced not only by individual factors such as education and income but also by broader contextual variables including family support, encouragement from community leaders, and geographic proximity to Posyandu. Their findings underscore the need to address multiple layers of influence simultaneously. In Aceh, Hariyanti and Hartono (2023) showed that only 46.6% of mothers regularly attended Posyandu sessions, and family support and perception of service quality were statistically significant predictors of motivation. This aligns with findings by Trisnawati et al. (2024), who noted that in Tanjungpinang, mothers' participation was more closely associated with perceived service quality and family support than demographic variables such as age or parity.

In addition to the role of cadres and family, the institutional environment and leadership support are increasingly recognized as influential. Suparto et al. (2016) analyzed implementation barriers in several Posyandu settings and identified challenges such as weak cadre commitment, poor cross-sectoral coordination, low public awareness, and inadequate infrastructure. They recommended comprehensive strategies that include cadre training, continuous education for mothers, and greater involvement of community leaders.

Urban and rural Posyandu settings pose different challenges. Sultan (2022) documented that while cadres in urban Yogyakarta displayed strong intrinsic motivation, they often lacked familial support and formal recognition, which limited their outreach capacity. In rural settings such as Katingan Hulu, even with full government support, attendance rates for toddlers remained around 50%, suggesting that infrastructure and trust-building mechanisms must complement top-down policy efforts (Rahmita & Suhartini, 2020). Recent studies have also highlighted the promise of community-based models and peer support interventions. The Care Group model, although developed outside Indonesia, has been shown to increase maternal behavior change by utilizing peer mothers to disseminate health messages and encourage healthy practices (Perry et al., 2015). This model emphasizes horizontal relationships among mothers, which often lead to more relatable and sustainable behavior change. In Indonesia, Rokhanawati et al. (2023) implemented a parenting peer education model among young mothers and reported improvements in maternal self-efficacy, caregiving behavior, and child development indicators including cognitive and motor skills.

Another innovative initiative, Posyandu Jalanan in Yogyakarta, demonstrated how services adapted to marginalized groups such as street-based mothers could reduce barriers related to stigma and physical access. This model emphasized flexibility in service delivery locations, cultural sensitivity, and participatory evaluation methods, and it succeeded in building trust among participants while improving maternal health knowledge (Astari, Syaifuddin, & Bennett, 2024).

Despite the breadth of interventions documented in the literature, significant research gaps remain. First, there is a lack of integrated interventions that draw on ecological systems theory to simultaneously address multiple levels of influence individual knowledge, family and peer support, cadre capacity, and leadership engagement. Most interventions target only one or two of these dimensions, which limits their effectiveness and sustainability. Second, localized implementation studies that consider specific community contexts, such as Pabelan (RT 03/RW 05), are scarce. Many existing studies adopt generalized designs that may not fully capture the cultural and logistical nuances of specific villages.

Moreover, there is a notable absence of long-term studies evaluating whether behavior change is sustained after the conclusion of short-term interventions. Many interventions show initial gains in attendance or knowledge but fail to track outcomes beyond a few months. Additionally, the role of peer support in maternal engagement, while promising, has not been widely integrated into Posyandu frameworks, and there is little empirical data on how such models function in rural Indonesian settings.

Finally, while maternal satisfaction with Posyandu services is frequently cited as a determinant of attendance, the mechanisms through which satisfaction develops such as improved cadre interaction, community recognition, or tangible health outcomes have not been sufficiently studied.

In light of these gaps, the present study seeks to evaluate a macro-level intervention in RT 03/RW 05 Pabelan that incorporates educational outreach, cadre training, local leader engagement, and peer support. Grounded in Bronfenbrenner's ecological systems theory, this study aims to produce contextually relevant and theoretically informed evidence on how multi-level, community-embedded strategies can sustainably enhance maternal involvement in child health services.

The core purpose of this study is to design, implement, and evaluate a macro level, ecologically informed intervention aimed at enhancing mothers' active participation in Posyandu services in RT 03/RW 05, Pabelan. Drawing on Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979), the intervention targets multiple levels of influence simultaneously: mothers' knowledge and attitudes (microsystem), peer networks and family support (mesosystem), cadre capacity and local leadership engagement (exosystem), and broader community norms and institutional support (macrosystem). While prior Posyandu initiatives in Indonesia have typically focused on improving individual components such as cadre training or maternal education this study is distinctive in its effort to integrate those components within a single, comprehensive framework.

By structuring the program across several layers of influence, the intervention seeks to produce a sustained change in behavior, rather than merely short term increases in attendance. Posyandu cadre training incorporates interactive, practice-based methods such as role play counseling and use of visual aids that enhance cadres' communication effectiveness, echoing findings by Eijkman et al. (2015) in West Java, who reported improved cadre knowledge and community trust following participatory training. The program also includes structured counseling sessions for mothers, delivered via community forums, peer group discussions, and printed educational materials. This multi-format educational strategy is modeled on campaigns like the Maternal and Child Health Handbook intervention in Pekanbaru, which significantly boosted maternal knowledge (Agrina, Suyanto, & Arneliwati, 2016). However, unlike isolated educational campaigns, our approach complements maternal learning with follow-up reinforcement through peer groups and cadre outreach.

A distinguishing feature of the 'purpose' intervention is the active involvement of local leaders and community stakeholders. Community leaders, religious authorities PKK cadres, and local health committees are engaged in planning and advocacy, with the intent of embedding the Posyandu program more fully within village governance structures and social norms. This multi-stakeholder engagement is grounded in evidence that community-level support significantly influences maternal attendance; for example, Murdikawati et al. (2018) found that leadership encouragement and family support were associated with prenatal care behaviors in West Kalimantan. Similarly, Suparto et al. (2016) highlighted that coordination among community leaders, health providers, and local government is essential for the success of Posyandu implementation. In Pabelan, preliminary observations show that while mothers depend on social capital and peer communication, the role of village leaders in promoting Posyandu remains underutilized. Therefore the present intervention builds on local governance frameworks to bolster participation and resource allocation.

From a theoretical standpoint, this study's contribution lies in operationalizing Bronfenbrenner's ecological systems theory in a Posyandu context, filling a critical gap in the literature. Most prior studies such as those by Titaley et al. (2016), Hariyanti & Hartono (2023), and Trisnawati et al. (2024) have identified factors influencing maternal attendance but have not designed interventions that explicitly address all ecological layers in an integrated manner. By contrast, our intervention is intentionally layered: enhancing individual knowledge, strengthening interpersonal networks, reinforcing organizational structure, and leveraging community leadership and policy support.

The benefits expected from this design are multi-dimensional. First, mothers who participate in the intervention are likely to demonstrate improved knowledge and more positive attitudes toward Posyandu, which in turn should increase attendance frequency. As demonstrated in prior research, increased maternal knowledge tends to correlate with behavior change though often only when supported by community systems (Agrina et al., 2016; Kusumawati, 2019). Second, cadre capacity-building efforts are expected to produce more effective and satisfying service delivery. When cadres receive regular, participatory training, they tend to deliver more meaningful counseling sessions that mothers perceive as valuable thus enhancing service satisfaction and trust. This is critical because satisfaction has consistently emerged as a stronger predictor of attendance than mere intention or knowledge (Titaley et al., 2016).

Third, by involving peer support groups and local leadership dynamics, the intervention aims to create a reinforcing environment where attendance becomes socially normative. Peer-based models, such as those employed in parenting peer education studies (Rokhanawati et al., 2023) and Care Group approaches (Perry et al., 2015), have shown that mothers are more likely to adopt positive health behaviors when encouraged by trusted peers. These models not only enhance individual behavior but also help sustain changes via shared commitment and mutual accountability. In Pabelan, mobilizing maternal peer groups enables mothers to discuss Posyandu experiences, share learning, and support each other—especially those who may face logistical or motivational barriers.

Fourth, by involving leaders and institutions such as the village health committee, PKK, and community figures the intervention aligns Posyandu goals with local priorities and resource flows. This alignment can ensure continuity beyond the project's formal timeline, as local structures integrate Posyandu into routine community planning. Studies such as the one in Katingan Hulu, Central Kalimantan, observed that villages with stronger leadership support and cadre performance achieved higher child attendance rates, even when infrastructural conditions were modest (Muhammad & Yopiannor, 2022). This integrated, context-specific engagement enhances sustainability and scalability.

Finally, the benefits reach beyond Posyandu attendance. When mothers are more engaged and cadres are more effective, early detection of growth faltering or developmental delay becomes more timely, enabling referral and follow-up services. The intervention's layered structure promotes improved early childhood monitoring, potentially contributing to reductions in malnutrition, stunting, and missed immunizations. Moreover, as maternal self-efficacy grows through leadership engagement and peer reinforcement, the broader psychosocial well being of mothers and communities may improve.

In summary, the purpose of this study is to evaluate whether a macro-level, multi-tiered intervention combining health education, cadre training, peer support, and stakeholder advocacy can significantly increase maternal attendance and satisfaction with Posyandu in Pabelan. Its contribution lies in operationalizing an ecological framework to implement and assess a comprehensive community health intervention in a rural Indonesian village. The benefits are multi-fold: improved maternal knowledge and attitudes; more effective cadre service delivery; stronger peer networks reinforcing health behaviors; embedded leadership support enhancing sustainability; and ultimately, better child health outcomes through more consistent monitoring and referrals.

By generating empirically grounded evidence on the effectiveness of this integrated model, the study intends to inform public health policy and grassroots programming. If successful, the intervention model may be adapted in similar community settings across Indonesia, offering a replicable pathway toward revitalizing Posyandu utilization and reinforcing maternal involvement in child health services.

This study was conducted to address the low level of maternal participation in Posyandu services in RT 03/RW 05, Pabelan. Despite the availability of integrated health services for children under five, many mothers are absent during monthly sessions, leading to missed opportunities for direct engagement, counseling, and early detection of health or developmental issues. Based on the findings from initial field observations and interviews with community members, including cadres and mothers, the study aims to explore how a macro-level intervention designed using Bronfenbrenner's ecological systems theory can enhance mothers' involvement in child health services.

The overarching objective of this study is to design, implement, and evaluate an ecologically grounded intervention model that increases maternal participation in Posyandu activities by activating multiple spheres of influence: individual maternal knowledge and attitude, family and peer support, cadre capacity, community leader involvement, and access to information. Specifically, the study has the following objectives:

- To identify the barriers and motivating factors influencing mothers' decision to attend or skip Posyandu services in RT 03/RW 05, Pabelan.

- To assess the effectiveness of structured health education in improving mothers' knowledge and attitudes regarding their role in child health monitoring.

- To evaluate whether cadre capacity-building (especially in counseling) contributes to enhanced satisfaction and trust in Posyandu services.

- To determine the influence of community leader support and social networks on sustained maternal attendance.

- To develop a locally adaptable, multi-layered intervention framework that integrates the roles of mothers, cadres, peer groups, and village leaders in revitalizing Posyandu participation.

Based on these objectives, the study seeks to answer the following research questions:

1. What are the primary factors that contribute to low maternal attendance at Posyandu services in RT 03/RW 05?

2. How does structured maternal health education affect mothers' knowledge and attitudes toward Posyandu?

3. Does the enhancement of cadre counseling capacity improve maternal satisfaction and participation?

4. What role does community leader engagement and peer group support play in promoting sustained maternal attendance at Posyandu?

5. How effective is a macro-level, ecologically designed intervention in increasing overall maternal involvement in child health services?

By addressing barriers across these systems from personal knowledge deficits to weak institutional encouragement the study seeks to build a sustainable model of maternal involvement. Ultimately, it aims to contribute not only to the revitalization of Posyandu in Pabelan but also to the broader discourse on maternal engagement in community-based child health services in Indonesia.

Method

This study utilized a qualitative approach based on the Community-Based Participatory Action Research (CBPAR) model. CBPAR was chosen as it emphasizes collaboration between the researcher and community members throughout the research process, from identifying issues to implementing and evaluating interventions. This participatory design ensured that the intervention was contextually grounded, culturally relevant, and empowered the community to take an active role in improving maternal participation in child health services at the Integrated Health Post (Posyandu). The research design combined semi-structured interviews, non-participant observation, and community engagement to guide the intervention cycle (Aryani et al., 2022).

Design

The study utilized a mixed-methods, community-centered design. Quantitative data were gathered through attendance records, structured surveys, and service observations, while qualitative data were collected through interviews and field notes. The intervention was implemented over a six-month period and included four main components: cadre training, maternal education sessions, peer support groups, and community advocacy meetings.

Participants

Prior to conducting the study, ethical clearance was obtained from the Faculty of Psychology, Universitas Muhammadiyah Surakarta. The procedures began with an initial assessment through semi-structured interviews with the RT head, Posyandu cadres, midwife, and several mothers to identify contributing factors, impacts, and community expectations. Simultaneously, non-participant observations were carried out at the Posyandu to gain insight into environmental conditions and behavioral patterns. Based on the assessment, a three-part intervention was designed: (1)

advocacy to the RT head, (2) counseling for mothers, and (3) empowerment of the RT and cadres. All activities were implemented in the community setting with informed involvement and participation of stakeholders (Ivankova, 2017).

Procedures

The study began with community meetings to identify problems and explore potential solutions collaboratively. Cadres were then trained through participatory workshops, and mothers attended structured education sessions focusing on child health, nutrition, and the importance of attending Posyandu. Peer support groups were established to strengthen mother-to-mother encouragement and accountability. Regular advocacy meetings with local leaders ensured support and sustainability of the program.

Data Collection

Quantitative data such as maternal attendance rates and survey responses on knowledge and attitudes were analyzed manually using descriptive statistics (percentages and averages) to assess pre- and post-intervention changes.

Qualitative data, including interviews and field observations, were analyzed using thematic analysis as outlined by Braun and Clarke (2006). Codes and themes were developed inductively to capture participant experiences, community perceptions, and social dynamics that influenced behavioral change. The CBPAR framework provided the lens through which both individual and systemic factors were interpreted, especially in relation to empowerment and participatory transformation.

Data Analysis

Thematic analysis was employed to interpret the data collected from interviews and observations. The researcher transcribed and coded the interviews manually, grouping recurring ideas and patterns into themes. These themes were then compared and interpreted to draw conclusions regarding the factors influencing parental participation, the perceived impacts, and the effectiveness of the intervention. Triangulation was applied by comparing data across different sources (RT head, cadres, mothers, observations) to ensure validity. The results were used to design follow-up plans and reflect on the intervention's strengths and limitations (Aryani et al., 2022).

Results

Community Identity Data

The demographic profile of the RT 03/RW 05 community in Pabelan, located within Kartasura Subdistrict, Sukoharjo Regency, Central Java Province, provides a snapshot of a vibrant and active neighborhood. The area comprises 129 family households. In terms of employment, 5% of the residents are civil servants, 50% are private employees or religious educators (ustadz/ustadzah), 30% are engaged in trade or entrepreneurship, and 15% work in other sectors. The educational background of the residents ranges from high school diplomas to bachelor's and master's degrees. Religiously, the community is predominantly Muslim (98%), with a small Catholic minority (2%).

The residents maintain a rich and consistent set of routine agendas that reflect strong community involvement. These include regular management meetings held monthly, quarterly community meetings, and annual events such as Halal Bihalal/Syawalan and the Virakatan Malam (Night Vigil) on August 17th, which features various competitions and a neighborhood carnival. Other annual traditions include healing sessions for residents and special activities for PKK mothers. Additionally, there are monthly PKK meetings and ongoing citizen data collection through the Dasawisma program. The community also supports health and empowerment initiatives such as the Toddler Posyandu (Cempaka 2), land maintenance by the KWT (Women Farmers Group), and various competitions to commemorate Mother's Day and Kartini Day.

Assessment Design

The assessment was designed using a combination of interview and observation methods to obtain comprehensive and in-depth data regarding the issue of parental participation in accompanying toddlers to integrated health posts (Posyandu). The purpose of the assessment was to explore the contributing factors, perceived impacts, existing efforts, and community expectations related to the low level of parental involvement. Semi-structured interviews were conducted with key stakeholders including the Head of RT (Bu RT), Posyandu cadres, the Posyandu midwife, and community representatives. Each interview aimed to capture the perspectives of these individuals on the lack of parental participation, the efforts they have made to address the issue, the complaints or impacts observed among residents, and their hopes for future improvements.

For example, the Head of RT was interviewed to gain insights into her views, actions, and expectations in mobilizing parents to accompany their children. Similarly, Posyandu cadres and midwives were consulted to understand their experiences and responses toward the same issue. Community representatives were also included to provide a broader societal perspective on the challenges and potential solutions. In addition to interviews, non-participant observation was carried out at the Posyandu using cameras and stationery to record real-time community behavior and environmental conditions. This method allowed for the observation of how residents interact with the Posyandu services and each other during activities, providing contextual support to the qualitative data obtained through interviews.

Implementation of Assessment

The assessment was implemented in several stages, using various methods and sources to ensure comprehensive data collection that would assist the facilitator in problem formulation and intervention planning. The first stage took place on May 19, 2025, from 18.00 to 19.00 at the residence of the RT head, where semi-structured interviews were conducted with both Mrs. and Mr. RT. The aim was to explore the problems related to parental participation in accompanying toddlers to the integrated health post (Posyandu). The interviews also sought to understand the RT head's perspectives, the actions and policies taken in response to the issue, the observed impacts within the community, and the expectations for resolving the problem. On May 21, 2025, further semi-structured interviews were conducted from 11.00 to 12.00 at the Cempaka 2 Posyandu with cadres and the midwife. This session aimed to capture their insights, concerns, and experiences related to the low participation of parents, as well as the impacts they observe and their hopes for improvement. On the same day, from 09.00 to 10.00, interviews were also held with mothers of toddlers who use the Posyandu services to understand their reasons for not consistently accompanying their children. Additionally, from 09.00 to 11.00, non-participant observation was carried out at the Cempaka 2 Posyandu. This method was used to gain a firsthand understanding of the environment and service conditions, including observing the presence of children who attended without parental accompaniment. Through this multi-source, multi-method approach, the assessment provided a holistic view of the issue and laid the groundwork for designing appropriate interventions.

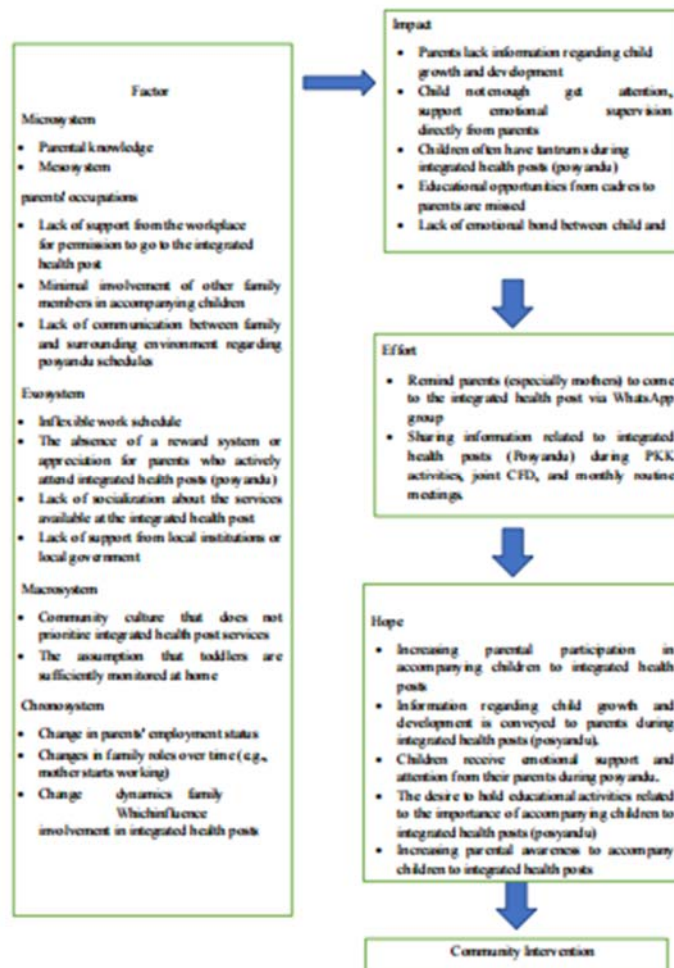


Figure 1. Results

Assessment Results

The results of the assessment, obtained through a combination of interviews and observations, provide a detailed understanding of the factors contributing to the lack of parental participation in accompanying toddlers to integrated health posts (Posyandu). Based on the interviews with community stakeholders, several key factors were identified. Many parents are preoccupied with work and daily responsibilities, making it difficult to find time to accompany their children. Some parents feel secure leaving their children in the care of daycare or kindergarten teachers, believing their presence is no longer necessary. Additionally, physical and emotional fatigue from household duties contributes to a lack of motivation. The ease of accessing health information online has also led some parents to assume that attending Posyandu is not essential. The impact of this lack of participation is multifaceted. Parents miss out on receiving vital information about their child's development, and children are often deprived of emotional support and supervision during Posyandu activities. This absence sometimes results in disruptive behavior, such as tantrums, which affects the overall environment of the Posyandu. Moreover, the educational opportunities provided by cadres—intended to improve parenting practices and child health awareness—are not fully utilized. These impacts point to a wider issue of low parental awareness and engagement in early childhood development initiatives.

Efforts have been made by the RT and Posyandu cadres to address these challenges. The community leaders actively remind parents, particularly mothers, to attend Posyandu sessions via WhatsApp groups and regularly disseminate information through PKK meetings, joint Car Free Day (CFD) activities, and monthly gatherings. These communication strategies aim to increase awareness and participation. However, the interviews also revealed that more consistent and structured interventions may be needed to change long-term behavior. The assessment also highlighted community hopes for future improvement. There is a strong desire to see increased parental participation so that children can benefit from direct support during Posyandu visits. Stakeholders hope that important information about child growth and health can be better delivered and understood by parents. Furthermore, there is interest in initiating educational activities focused on the importance of parental presence, aiming to build shared understanding and commitment among families to support optimal child development. In addition to interview findings, the observation results provided valuable contextual insight. The Posyandu environment was observed to be quite active, largely due to the presence of children from kindergartens and the Watatita daycare. The location itself is accessible and easy to reach, but lacks engaging or interactive activities for children while they wait for services.

Quantitative Results

Data on mothers who accompanied their children to the integrated health post (posyandu) in May and June 2025 are as follows:

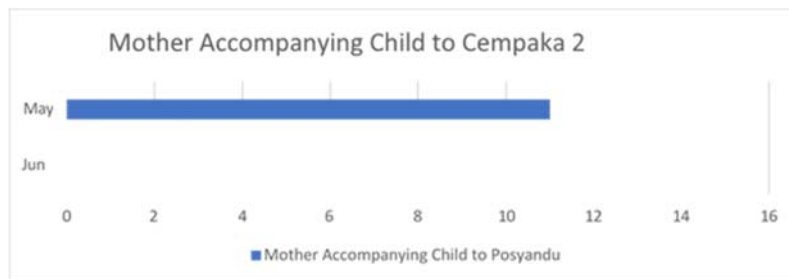


Figure 2. Data on mothers who accompanied their children to Posyandu Cempaka 2 in May and June 2025

The data above shows that in May 2025, total 20 participants involved, but 11 mothers attended the integrated health post (Posyandu) to accompany their children. In June 2025, this number increased to 14, resulting in an increase in maternal attendance in June 2025 after the intervention. This demonstrates an increase in maternal participation in accompanying children to the Posyandu after the intervention. This increase aligns with findings from Hermawan and Rusdi (2023) that ongoing health education can increase parental motivation and participation, particularly mothers, in Posyandu activities.

Intervention Design

1. SWOT Analysis

Table 1. *SWOT Analysis*

Strengths	Weakness
<ol style="list-style-type: none"> 1. Residents are active in every activity carried out 2. Routine activities are carried out both weekly and monthly. 3. The location of the integrated health post is close to residential areas. 4. There is a desire in the community to obtain education regarding parental participation in accompanying children to integrated health posts (posyandu) which needs to be implemented. 5. The existence of the PKK organizational structure and cadres integrated health post: Facilitate the dissemination of extension information 6. RT is ready to facilitate every activity what the community does 	<ol style="list-style-type: none"> 1. Lack of awareness or understanding among mothers of the importance of integrated health posts (posyandu). 2. Lack of interesting communication methods 3. There has been no education regarding the importance of mothers' participation in accompanying their children to the integrated health post (posyandu).

Opportunities	Threats
<ol style="list-style-type: none"> 1. Potential collaboration with KKN students, community health centers, or women's organizations by holding educational activities related to parental participation in accompanying children to integrated health posts (posyandu). 2. Utilizing social media, WhatsApp groups, YouTube and TikTok as educational tools, such as creating content. 3. Increasing the role of community leaders/RT/RW in invite and give examples. 4. There are government programs that support improving maternal and child health. 	<ol style="list-style-type: none"> 1. Mother's dependence on husband or family in decision making. 2. Economic factors make mothers reluctant to leave housework or side jobs. 3. Some parents feel that information about their child's health can be found out through social media.

Action Plan

The action plan to increase parental participation in accompanying toddlers to the integrated health post (Posyandu) in RT 03/RW 05 was structured into three key methods: advocacy, counseling, and empowerment. These methods were implemented in a series of targeted activities involving community stakeholders, particularly mothers of toddlers, the RT head, and Posyandu cadres. The first method was advocacy, aimed at the Head of RT 03/RW 05. This involved presenting the problems identified through assessment—namely the low parental (especially maternal) participation in Posyandu—and proposing an intervention plan. The facilitator informed the RT head about the negative impacts of low participation and emphasized the role of community leadership in supporting and facilitating increased parental engagement. By securing the RT head’s approval and collaboration, this step ensured that the intervention would be supported at the neighborhood level and potentially integrated into future community initiatives. The second method involved counseling sessions for mothers who have toddlers in the neighborhood. The counseling aimed to increase understanding and awareness regarding the importance of actively accompanying children to Posyandu. During the session, mothers were provided with materials about the benefits of Posyandu, including health monitoring, immunization, and nutritional advice. The facilitator also addressed the risks of low parental engagement, such as reduced emotional support for children and missed educational opportunities. To ensure accessibility and retention of information, leaflets summarizing the key points were distributed to

all participants. A children's play corner was set up to allow mothers to focus on the session while their children were entertained in a safe, engaging environment. The session concluded with a light exercise activity to foster a sense of community and enthusiasm. The final method was empowerment, focusing on strengthening the role of the RT head and Posyandu cadres in sustaining the intervention. The facilitator provided booklets containing key messages about the importance of parental involvement, intended to be shared during routine community activities. This stage was also used to reflect on the impact of previous activities and discuss strategies for continued dissemination of knowledge. Both the RT head and cadres responded positively, recognizing the intervention's value and expressing commitment to spreading the information further—through WhatsApp groups and regular meetings. Overall, this action plan utilized a collaborative and community-based approach, combining education, engagement, and leadership empowerment to address the issue of low parental participation in Posyandu activities. The integration of practical support, like printed materials and child-friendly spaces, further contributed to the plan's effectiveness and sustainability.

Discussion

The intervention, which included counseling to increase mothers' participation in accompanying their children to the integrated health service post (Posyandu), demonstrated an increase. This can be seen in the qualitative data based on responses from the participating mothers. At the end of the activity, we, as facilitators, conducted simple interviews with the mothers to gather their opinions regarding the intervention. This was evident in a question posed by one mother regarding how to encourage her child to be accompanied directly by her at the Posyandu. Previously, the child preferred to attend the Posyandu with friends. Kindergarten friends who were not accompanied by their parents, but by a female teacher. This question reflects a shift in the mindset of mothers who previously allowed their children to attend integrated health posts (Posyandu) without supervision, now understanding the importance of direct involvement as a form of emotional support and monitoring of their children's development.

This shift in mindset demonstrates the effectiveness of the outreach activities provided. Providing outreach to mothers has been shown to increase their involvement and motivation to attend Posyandu (Integrated Health Post). This is supported by the findings of Lubis et al. (2025), who stated that conducting outreach programs regularly can significantly increase the participation of mothers of toddlers. Providing outreach to mothers has been proven to be highly effective in increasing their knowledge, motivation, and involvement in accompanying toddlers to Posyandu. For example, research by Ulfa and Monica (2021) showed that after mothers received health education, their attendance at Posyandu increased significantly ($p = 0.05$). Meanwhile, research conducted by Nazri et al. (2016) found that maternal satisfaction with Posyandu services, which can be improved through quality outreach and education, significantly influenced the frequency of their visits.

Several mothers interviewed revealed that they previously lacked a clear understanding of the importance of integrated health posts (Posyandu) because they felt they had sufficient information about child health online. However, after attending the counseling session, they realized the importance of direct interaction with cadres and health workers, as well as the benefits of emotional involvement while accompanying their children at the Posyandu. This experience aligns with the findings of Rahmadani and Sutrisna (2022), who showed that health counseling about Posyandu significantly improved the knowledge of mothers of toddlers, with the average knowledge score increasing from 5.30 to 12.87 after the intervention ($p < 0.05$). Another study by Hasibuan (2022) at Posyandu Teratai I in Padangsidempuan City also supported these findings, showing that counseling significantly improved mothers' understanding of stunting ($p = 0.00$). These findings indicate that mothers who were previously less active and relied solely on online information began to show changes in attitude after receiving direct education. Personal interaction in counseling sessions proved more effective because it allowed for questions and answers and discussions, resulting in a more comprehensive understanding of mothers. Thus, outreach not only has an impact on increasing knowledge, but also strengthens the bond between Posyandu cadres and the community in an emotional and participatory manner.

Furthermore, qualitative findings from integrated health post (Posyandu) cadres revealed that while some mothers had previously attended the Posyandu solely to fulfill their obligations, after receiving counseling, light discussions about child development began to emerge. This aligns with research by Lubis et al. (2025), which found that education significantly increased parental participation, leading to deeper involvement, not only physically but also mentally and emotionally. Based on the results of the outreach intervention, it can be concluded that this activity has proven effective in increasing mothers' participation, knowledge, and motivation in accompanying their children to the integrated health post (Posyandu). This is reflected in the shift in mindset of mothers, who previously tended to be passive or only present out of obligation, to become more emotionally and actively involved in discussions related to child development.

Evaluation of Activities

The implementation of the intervention activities to increase parental—particularly maternal—participation in accompanying toddlers to the integrated health post (Posyandu) in RT 03/RW 05 yielded both positive outcomes and areas for improvement. One of the main strengths of the activity was its success in encouraging mothers to be more involved in their children's health monitoring by attending Posyandu sessions. The facilitator provided informative leaflets to mothers, which served as a practical and accessible reference about the importance of parental involvement. Additionally, booklets were distributed to the RT head to help reinforce the counseling messages during regular community meetings. A further strength was the facilitator's ongoing communication with both the RT head and Posyandu cadres, ensuring follow-up on

behavioral changes and sustaining the momentum of the intervention. However, several limitations were also observed during the evaluation. The counseling session, which lasted approximately 25 minutes, was insufficient to comprehensively convey the significance of parental participation in Posyandu activities. This time constraint, combined with limited audience engagement, affected the effectiveness of message delivery. The pre-test and post-test instruments used were not well-aligned with the specific intervention goals, resulting in data that could not be effectively utilized for evaluation purposes. Additionally, not all participants showed enthusiasm during the presentation, which suggested that the material could have been delivered in a more engaging and interactive format. Weather conditions, particularly rain on the day of the event, also limited the number of attendees. Finally, the presence of more experienced extension workers or health educators could have enhanced the quality and impact of the counseling session.

Corrective Action Plan

To address these shortcomings, several follow-up strategies have been proposed. First, a more personalized approach will be adopted by conducting home visits to families who were identified as not accompanying their children to Posyandu. These visits, in collaboration with Posyandu cadres, will aim to identify specific challenges and provide targeted support or solutions. Second, to increase engagement and broaden the reach of the educational content, digital platforms such as YouTube and TikTok will be utilized. Content will be co-created with cadres and participating mothers to disseminate knowledge about the importance of parental involvement in Posyandu in a more creative and relatable way, thereby fostering greater awareness and community participation.

Based on the results of the intervention in the form of counseling to increase maternal participation in accompanying children to the integrated health post (Posyandu) which was carried out in RT 03/RW 05 Pabelan Village, it can be concluded that the intervention has successfully had a positive impact on increasing maternal participation in accompanying children to the Posyandu. The intervention began with advocacy to the RT head, which aimed to convey the problem of low parental participation and gain support for the solution design in the form of counseling. The counseling activity for mothers went well, marked by participant involvement in the question and answer session and increased understanding of the importance of the active role of parents in the Posyandu. These results are supported by quantitative data, which shows an increase in the number of mothers attending the Posyandu from 11 people in May to 14 people in June 2025 after the counseling was carried out. In addition, empowerment activities for the RT head and Posyandu cadres also received a positive response and support to disseminate information to the community through the RT's internal media. Thus, the series of interventions implemented proved effective in building awareness and encouraging the active involvement of mothers in accompanying their children to the integrated health post (posyandu), as well as creating good collaboration between the community and local stakeholders.

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