

Impact of Small Group Counseling and Family Support on Increasing Complete Basic Immunization (CBI) Coverage at Siak Health Center

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Abstract

Complete Basic Immunization (CBI) is a crucial public health goal at the Siak Health Center. In recent years, the coverage has decreased from 48% in 2022 to 45.9% in 2023, necessitating effective interventions. This study assesses the impact of small group counseling and family support on increasing CBI coverage. The methodology involves direct small-group sessions and ongoing family visits in informal settings. Counseling materials were supported with visual aids to improve knowledge among mothers about the importance of immunization. Results indicate a positive response from participants, highlighting increased understanding and motivation. This study underscores the need for continuous counseling and monitoring to ensure higher immunization rates.

Keywords: *Small Group Counseling, Family Support, Complete Basic Immunization, Community Intervention*

INTRODUCTION

Immunization remains one of the most cost-effective health interventions, with the potential to save 2-3 million lives annually by preventing diseases such as measles, diphtheria, and tetanus (World Health Organization, 2021). Despite its critical importance, gaps in immunization coverage persist worldwide, leaving millions of children unprotected. In 2021 alone, approximately 25 million children globally did not receive complete basic immunization (CBI), the highest number recorded since 2009 (WHO, 2022). These gaps are especially pronounced in low- and middle-income countries, including Indonesia, where immunization coverage has been impacted by logistical challenges, misinformation, and public hesitancy.

Indonesia, as one of the largest archipelagic nations, faces unique public health challenges in ensuring comprehensive immunization. The Indonesian Ministry of Health reported that from 2017 to 2021, over 1.5 million Indonesian children did not receive full immunization (Kemenkes, 2021). This situation has been exacerbated by the COVID-19 pandemic, which disrupted regular health services, including routine immunization programs. Studies conducted during and after the pandemic have shown that misinformation about vaccines, both for COVID-19 and routine immunizations, significantly contributed to the decline in immunization rates (Yoselina et al., 2023).

In the context of Riau Province, particularly in Siak district, the Complete Basic Immunization (CBI) coverage has been alarmingly low. Data from the Siak Health Center indicate a decline from 48% in 2022 to 45.9% in 2023, far below the national target of 80%. A key factor influencing this decline is the lack of awareness among mothers about the importance and benefits of immunization, compounded by cultural misconceptions. A survey conducted at the Siak Health Center revealed that many mothers believed immunization could make their children sick or vulnerable to other diseases. This belief is not unique to Siak but reflects broader national trends where vaccine hesitancy is linked to misinformation and low health literacy (Zulfikar & Muslimah, 2021).

The relationship between maternal knowledge and immunization coverage has been well-documented in public health literature. According to Zulfikar & Muslimah (2021), mothers with low health literacy are 20 times more likely to miss vaccination schedules compared to those with adequate knowledge. Furthermore, research by Wibowo et al. (2020) confirms that mothers who receive accurate and timely health information are more likely

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to ensure their children are fully immunized. This highlights the critical role of health education in improving immunization coverage, especially in rural and underserved communities.

To address these challenges, this study employs a two-pronged approach: small group counseling and family support through home visits. Small group counseling has been shown to be an effective method of health promotion, particularly in settings where one-on-one education is not feasible (Simanjuntak & Nurnisa, 2019). This approach allows for tailored communication and interactive discussions, which are more likely to resonate with mothers who may have doubts or concerns about vaccination. Meanwhile, family involvement in health interventions is increasingly recognized as a crucial factor in improving health outcomes. Studies have demonstrated that when families are engaged in the health education process, adherence to health recommendations, including immunization, significantly increases (Astuti et al., 2023). The involvement of family members, particularly fathers and extended family, can provide additional support and encouragement for mothers to complete their children's immunization schedules (Pademme & Mansoben, 2020).

Given these insights, this study aims to examine the effectiveness of combining small group counseling with continuous family support to increase immunization coverage at the Siak Health Center. The primary objectives are to enhance maternal knowledge about CBI, debunk prevalent myths, and leverage family support to ensure the completion of immunization schedules. By implementing these interventions, we seek to provide a scalable model that can be adapted for similar public health challenges across other regions in Indonesia.

METHODOLOGY

This community intervention employed a quasi-experimental design with pre- and post-intervention assessments to evaluate the effectiveness of small group counseling and family support in increasing Complete Basic Immunization (CBI) coverage. The study was conducted in two phases:

Study Setting and Population

The study was carried out at the Siak Health Center in Riau Province, Indonesia, between January and August 2023. The participants were mothers with infants aged 0-12 months who had incomplete immunization records. A total of 60 mothers were selected, with 30 participating in small group counseling and 30 receiving family support through home visits. Participants were selected using purposive sampling, ensuring they met the inclusion criteria of being residents of the Siak district and having infants due for immunization.

Intervention Design

The intervention was divided into two components:

Small Group Counseling

Mothers attended a series of sessions in groups of 3-6 at the local Posyandu (integrated health post). Each session was facilitated by a healthcare professional and utilized flip charts and interactive discussions. The sessions aimed to provide information about the benefits of CBI, debunk common myths, and clarify the immunization schedule. Counseling materials were tailored to the educational levels of the participants.

Family Support and Home Visits

For mothers who did not attend Posyandu, family-centered home visits were conducted. These informal visits involved other family members, such as fathers and grandparents, to address their concerns about immunization. This approach aimed to engage the family unit in supporting the mother's decision to complete her child's immunization. Visual aids and simple, easy-to-understand messages were used during the visits.

Data Collection

Data was collected using a structured questionnaire administered pre- and post-intervention. The questionnaire assessed maternal knowledge of immunization, attitudes toward vaccines, and immunization practices. Immunization records from the health center were reviewed to track changes in CBI coverage among

participants. Qualitative data was also gathered through focus group discussions and interviews with healthcare workers to assess the intervention's acceptability.

Data Analysis

Quantitative data was analyzed using paired t-tests to compare pre- and post-intervention knowledge scores. Immunization completion rates were calculated as percentages, and the effectiveness of the interventions was measured by the increase in CBI coverage. Qualitative data was analyzed using thematic analysis to identify key themes related to the barriers and facilitators of immunization.

RESULTS AND DISCUSSION

Demographic Profile of Participants

Of the 60 mothers who participated in the study, the majority were between 20-35 years old, with educational levels ranging from elementary to high school. Most mothers were housewives, and their families relied on small-scale farming or informal jobs for income. About 70% of the mothers reported limited knowledge of CBI before the intervention.

Impact of Small Group Counseling

The small group counseling sessions significantly improved mothers' knowledge about CBI, with pre-test scores averaging 45%, compared to post-test scores of 85%. This marked improvement aligns with studies that emphasize the effectiveness of group-based health education in improving maternal knowledge (Simanjuntak & Nurnisa, 2019). Mothers reported a better understanding of immunization schedules and fewer concerns about vaccine safety.

Effectiveness of Family Support and Home Visits

Home visits showed a notable increase in family engagement, with fathers and grandparents actively participating in discussions about immunization. Post-intervention, immunization completion rates among families who received home visits increased by 35%. This result highlights the importance of involving family members in health interventions, consistent with findings from Pademme & Mansoben (2020), who demonstrated that family support is crucial in ensuring compliance with immunization schedules.

Immunization Coverage Improvement

Overall, the combined intervention strategies led to an increase in CBI coverage from 45.9% to 65% within the intervention period. This significant rise demonstrates that personalized and continuous support, such as small group counseling and family visits, can effectively overcome barriers to immunization. Similar interventions in low-resource settings have achieved comparable results, confirming that tailored health education plays a critical role in addressing public health challenges (Astuti et al., 2023).

CONCLUSION

This study demonstrates that small group counseling and family support are effective strategies for improving immunization coverage in low-resource settings. The personalized nature of the interventions allowed for more meaningful engagement with mothers and their families, addressing both knowledge gaps and cultural barriers. The significant increase in Complete Basic Immunization (CBI) coverage at the Siak Health Center underscores the importance of ongoing, community-centered interventions. Future programs should focus on sustaining these efforts through regular monitoring and family-centered education to ensure long-term improvements in immunization rates.

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