

Child Immunization Education through Community Service Program in Umong Seuribee Village, Aceh Besar District

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Abstract

Parental knowledge is a crucial factor influencing compliance with child immunization. The Field Learning Practice (PBL) conducted in Umong Seuribee Village, Aceh Besar District, aimed to identify problems and provide interventions through an educational approach. Out of a total of 47 children under five in the village, 40 had received immunizations, although some were incomplete, while 7 had not received any immunization records at all. Door-to-door visits were carried out for 20 children who rarely attended the posyandu (integrated health post) and had not completed their immunizations, providing counseling, checking maternal and child health books (KIA), and encouraging catch-up immunization. The findings revealed issues such as inadequate record-keeping in KIA books and low involvement of husbands in supporting immunization. However, the interventions succeeded in increasing posyandu attendance from 29 children in July to 34 children in August and fostered greater willingness among the community to complete delayed immunizations. These results indicate that improving parental knowledge is closely related to immunization compliance, highlighting the need for continuous efforts through counseling, strengthening health cadres, adjusting posyandu schedules, and optimizing catch-up immunization services.

Keywords: Immunization 1; Parental Knowledge 2; Posyandu 3; Health Education 4; Community Service 5

Introduction

Immunization is one of the most effective public health interventions to reduce morbidity, disability, and mortality caused by vaccine-preventable diseases (WHO, 2020). Complete basic immunization has become a national program in Indonesia and is mandatory for every child starting from infancy. Vaccination has been proven to significantly lower the incidence of dangerous infectious diseases such as polio, measles, hepatitis B, diphtheria, pertussis, and tetanus (Ministry of Health RI, 2022). However, despite being a priority program, immunization coverage in several regions still faces various challenges.

One of the key factors influencing the success of immunization programs is parental knowledge. Previous studies have shown that low maternal knowledge is closely associated with poor compliance in completing children's basic immunization (Rahmawati & Putri, 2020). In addition, family attitudes, cultural beliefs, and spousal support also play an important role in determining mothers' involvement in bringing their children to the posyandu (integrated health post). In many cases, children are not immunized due to concerns about side effects, reliance on myths, or limited transportation access to health facilities.

A similar condition was observed in Umong Seuribee Village, Aceh Besar District. Based on preliminary observations, some children under five were found to have never received any immunization, while others had only partially completed their schedules. Common obstacles included parental fear of fever after vaccination, limited understanding of the importance of complete immunization, and poor record-keeping in maternal and child health (KIA) books. Social factors, such as lack of support from husbands or families, also influenced mothers' low participation in immunization programs.

The Field Learning Practice (PBL) conducted by students of the Faculty of Health Sciences, Teuku Umar University, was implemented as a form of community service to address these issues. This activity not only aimed to identify barriers faced by parents but also to provide direct educational interventions through health counseling, door-to-door visits, and training of posyandu cadres. Through this approach, it was expected that community understanding of the importance of complete basic immunization would improve, while also encouraging parents to routinely bring their children to the posyandu.

In this program, students acted as facilitators, bridging healthcare providers, posyandu cadres, and the community to strengthen immunization initiatives. The main focus of this service was to raise parental awareness, improve immunization record-keeping, and promote active community participation in completing children's basic immunization. Thus, the PBL activities were expected to make a tangible contribution to achieving national immunization coverage targets and to strengthening child health at the village level.

Methods

The Field Learning Practice (PBL) was carried out from July to August 2025 in Umong Seuribee Village, Lhoong Subdistrict, Aceh Besar District. Supporting media used in the community service activities included leaflets, posters, banners, videos, and presentation materials prepared with PowerPoint. The implementation of the program applied a descriptive qualitative research design with a participatory approach. Data were collected through the following activities:

1. Field Observation

Conducted by visiting households door to door to record children's immunization status and identify barriers faced by parents.

2. Short Interviews

Carried out with mothers of under-five children, posyandu cadres, and community leaders to gather information on their knowledge and attitudes toward immunization.

3. Health Education

Delivered at the posyandu with topics covering the importance of immunization, child growth monitoring, and balanced nutrition practices.

4. Cadre Training

Provided for posyandu cadres to strengthen their ability to use persuasive approaches when engaging with families

5. Posyandu Attendance Recording

Documented the number of under-five children attending the posyandu before and after the intervention.

Results

Field Learning Practice (PBL) in Gampong Umong Seuribee recorded a total of 47 toddlers. Of this number, 40 toddlers were found to have received immunizations, although some were incomplete, while 7 toddlers had not been recorded as receiving any immunization at all. The student team then conducted door-to-door visits to 20 toddlers who rarely attended the integrated health post (posyandu) and most of whom had not yet received complete immunizations. The activities carried out included educating parents on the importance of immunization, checking the Maternal and Child Health (MCH) handbook, and encouraging them to bring their children to the posyandu.

The examination results indicated that there were still challenges in recording immunizations in the MCH handbook, as most of the books were left blank without records. To obtain more accurate data, the team requested additional information from the village midwife.

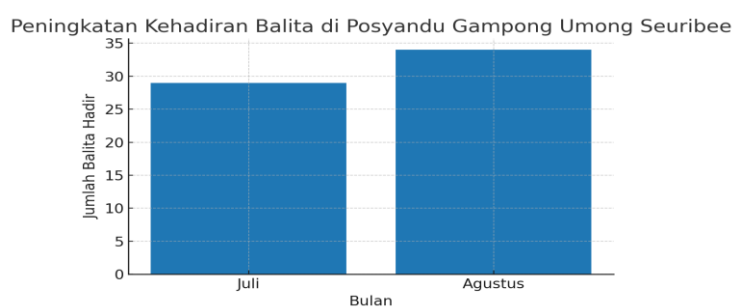
a. Posyandu Attendance

One of the key indicators of the success of the PBL activities can be seen from the increase in the number of children under five attending the posyandu. In July, 29 children were recorded as attending, while in August the number increased to 34. This reflects an improvement in community participation following the implementation of door-to-door visits, health education sessions, and cadre training.

Table 2. Attendance of Under-Five Children at the Posyandu in Umong Seuribee Village

No	Month	Number of Children Attending
1	Juli	29
2	Agustus	34

The following shows the percentage of under-five children who attended:



This increase in attendance is consistent with findings from other studies, which report that counseling and health education have a positive effect on mothers' behavior in bringing their children to the posyandu (Sari et al., 2021). In addition, interview results indicated a change in parental attitudes, where most parents who were previously reluctant to take their children to the posyandu became more motivated to complete their immunizations.

b. Catch-up Immunization

Although no official records were available regarding the number of children who had received catch-up immunizations, interviews with mothers of under-five children indicated an interest and willingness to participate in immunization during the next posyandu session. However, during the August posyandu activities, the health center only provided vitamin A supplementation without immunization services, which prevented the recording of catch-up immunizations.

c. Problems in KIA Record-Keeping

An important issue identified was the incomplete record-keeping in the Maternal and Child Health (KIA) books. Many KIA books were left blank without immunization records, even though the children had already received the services. This creates the potential for data errors and makes it difficult for healthcare workers to monitor immunization status.

Discussion

The results of the activities showed that education through door-to-door approaches and counseling at the posyandu contributed positively to the increase in attendance of under-five children. The rise from 29 children in July to 34 children in August indicated a change in parental behavior toward being more active in following immunization programs. These findings are in line with Sari et al. (2021), who reported that health counseling can increase mothers' participation in bringing their children to the posyandu.

Parental knowledge proved to be a decisive factor in immunization compliance. Some parents initially refused immunization due to limited information and persistent myths regarding side effects. However, after receiving direct explanations through home visits, parents became more open and willing to take their children to the posyandu. This is consistent with Rahmawati & Putri (2020), who found a significant relationship between maternal knowledge and compliance with basic immunization.

In addition to knowledge, social support also played a role. Several mothers did not attend the posyandu because they did not receive permission from their husbands. This condition highlights the importance of involving men (fathers) in child health education. On the other hand, the role of posyandu cadres was also proven to be highly significant. Through cadre training in the PBL activities, their motivation to encourage community participation increased, thereby strengthening immunization coverage in the village.

Another issue identified was the weak record-keeping of immunization in the Maternal and Child Health (KIA) books. The absence of clear immunization records could cause confusion for both healthcare providers and parents. Therefore, a better recording system is needed through improved coordination between cadres, village midwives, and the health center.

Overall, these community service activities demonstrated that continuous education, cadre involvement, and family support can enhance parental awareness and compliance in completing children's basic immunization.

Conclusion

Based on the results of the Field Learning Practice (PBL) in Umong Seuribee Village, it can be concluded that parental knowledge is closely related to compliance in completing children's immunization. Of the 47 under-five children recorded, 40 had received immunization although some were incomplete, while 7 had not been recorded as receiving any immunization at all. The door-to-door activities conducted for 20 children proved effective in increasing parents' understanding of the importance of immunization. This intervention also had an impact on increasing attendance at the posyandu, from 29 children in July to 34 in August, as well as raising community awareness to complete missed immunizations.

Acknowledgment

In the implementation of the program, various stakeholders played important roles according to their capacities. UNICEF contributed by providing informational media such as leaflets and posters to support the dissemination of education. The District Health Office played a role in providing technical support and monitoring the progress of activities. Community cadres served as the front line in the field by providing data on the number of children while also accompanying program activities during door-to-door visits. Meanwhile, the Village Head supported the smooth operation by providing transportation facilities, such as motorized tricycles or rickshaws, which helped ensure that the activities could run more effectively.

Author Contribution and Competing Interest

All authors contributed actively to this research and the preparation of the article. Fitriani was responsible for activity design and field supervision. Uzair Syabanna Z and Cut Putroe Phang Maha Rani were involved in data collection and the implementation of counseling activities. Rina Nurmala and Aflidawati contributed to data analysis and drafting the manuscript. Aldilla Novriana and Dea Indah Fania assisted in literature review, table preparation, and final editing of the manuscript. The authors declare that there are no conflicts of interest related to this research or the preparation of this article.

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