

IMMUNIZATION COUNSELING OVERVIEW AND INVOLVEMENT OF HEALTH WORKERS OR CADRES IN PROVIDING IMMUNIZATION

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ABSTRACT

This study aims to determine the description of immunization counseling and the involvement of health workers or cadres in providing immunization to toddlers. This study uses a quantitative descriptive design with a simple random sampling technique of 103 respondents. The results showed that 82.5% of mothers had received immunization counseling, while 17.5% had not. The involvement of health workers or cadres in providing immunization was considered good by 82.5% of respondents and sufficient by 17.5%. In conclusion, that immunization counseling and the role of health workers or cadres have a significant influence on providing immunization to toddlers. The majority of mothers received counseling and assessed the services of health workers as good, which can encourage participation in the immunization program.

Keywords: Toddlers, Immunization, Cadres, Counseling, Health Workers

INTRODUCTION

As one of the primary preventive measures, immunization plays a very important role in maintaining the health and safety of toddlers from the threat of infectious diseases. WHO (2024) noted that immunization can prevent around 2-3 million deaths each year. However, in some areas, immunization coverage is still relatively low. This is due to various factors, such as minimal counseling, lack of public awareness, and the involvement of health workers and cadres that is not optimal. Immunization counseling has a very important role in increasing public awareness, especially mothers, regarding the importance of vaccination. Syilvia et al., (2025) showed that counseling using audio-visual media has proven to be more effective in increasing mothers' knowledge about basic immunization compared to the lecture method. Counseling with audio-visual media can be used as a more interactive and informative alternative in health education programs to increase basic immunization coverage in infants. In other words, counseling is a strategic step in changing people's perceptions and behavior towards immunization.

In Indonesia, complete basic immunization coverage in 2022 reached 84.5%. This figure is still below the national target of 93% (Rokom, 2023). This low coverage is closely related to the lack of public understanding of the importance of immunization and the constraints on access to health services, especially in remote areas and areas with limited infrastructure (Aminuddin, 2025). Health workers and Posyandu cadres are the spearheads in implementing immunization programs at the community level. Khaeriah's research (2024) shows that Posyandu Melati 6 cadres in Lengkong Kulon Village have been active in disseminating information about the importance of polio immunization and organizing health education activities. However, there are several challenges, including limited resources, lack of training, and communication barriers with the community. However, the proactive

involvement of Posyandu cadres and support from village officials, community leaders, village midwives, and the surrounding community, contributed to increasing immunization coverage. In conducting education, it is not only about conveying information, but also aims to influence community attitudes and behavior.

In the digital era, immunization counseling has also begun to utilize digital platforms such as social media. Kementerian Kesehatan Republik Indonesia (2022) reported that this Strategy emphasizes the use of a community-centered approach, multi-sector collaboration, and the power of digital media and local figures to strengthen parental trust and participation in the immunization program. With tiered and evaluative implementation, this strategy aims to achieve equitable and sustainable immunization coverage by 2025. This shows the great potential that the use of technology can be used appropriately in supporting the national immunization program.

However, counseling in remote areas still faces various challenges. According to Ahmad (2023) in the Kompasiana article, there is still an imbalance in the distribution of health facilities and workers in Indonesia which is still a serious problem in the national health service system. Urban areas generally have much better access to health services, both in terms of the availability of medical facilities and the number of adequate health workers. On the other hand, people in rural or remote areas still have difficulty accessing basic health services optimally. This inequality is caused by several main factors, including the high concentration of health workers in big cities, minimal incentives for health workers to work in remote areas, and imbalances in infrastructure development and health budget allocation between regions. As a result, access for people in rural areas to health services is very limited, which in turn exacerbates the gap in health quality between developed and underdeveloped areas. This inequality not only has an impact on decreasing participation rates in health programs, but also increases long-term health risks for people in underserved areas.

The involvement of Posyandu cadres is also not free from obstacles. Siregar's research (2022) analyzed the role of Posyandu cadres in supporting measles immunization status in the Batu Horpak Health Center work area. Cadres play a role in collecting data on immunization targets, socializing the importance. vaccination, and motivating parents to bring their children to the Posyandu/Puskesmas. The results show that active support from Posyandu cadres is correlated with better measles immunization coverage, although there are still challenges such as lack of public awareness and vaccine availability. Socio-cultural factors also determine the success of immunization counseling. In some communities, there are still beliefs or myths about the side effects of immunization that have not been fully resolved.

Wardaya et al., (2024) in his research in the Tembarak Health Center work area showed that negative community beliefs had a significant relationship with the rejection of basic immunization ($p < 0.001$), where half of the respondents refused immunization because of side effects, ingredient content, and religious beliefs. Health workers play an important role not only in administering vaccines, but also in providing empathetic assistance and education to parents. Effective and empathetic communication also helps health workers in addressing parental concerns, especially for those who are hesitant or delay immunization, so that good relationships are maintained and trust in medical recommendations increases (Trifunović et al., 2021). On the other hand, negative emotional reactions such as anxiety and anger in parents can reduce their level of trust and intention to carry out immunization, so it is important for health workers to respond quickly and empathetically to reduce these negative emotions (Zhou et al., 2021).

On the other hand, Posyandu cadres play an important role as a vital link between health workers and the community, especially in increasing access to and utilization of health services at the community level. They are tasked with providing education, counseling, and detecting the health needs of the community, especially pregnant women, toddlers, and the elderly, as well as being a source of information for health institutions that have difficulty reaching the community directly (Sundari et al., 2025).

Economic aspects also need to be considered in the counseling strategy. Low-income families tend to delay immunization of their children due to various obstacles, such as access to distant health facilities, transportation problems, inflexible clinic operating hours, and lack of reminders or adequate information about the immunization schedule. In addition, other factors such as low maternal education levels, family economic status, and belief in vaccine safety also play a role in delaying immunization (Zell-Baran et al., 2022).

Experience during the COVID-19 pandemic shows the importance of a strong counseling system. Hartner et al., (2024) research shows that countries with strong outreach systems tend to be better able to maintain immunization coverage despite disruptions to health services due to pandemics such as COVID-19. During the pandemic, many countries experienced a decline in immunization coverage, especially at the beginning of the crisis, due to mobility restrictions, concerns transmission, and the diversion of resources to handling COVID-19. However, factors such as support from health workers and community outreach programs have proven to be key to the resilience of immunization systems, helping to restore vaccination coverage more quickly and preventing groups of unimmunized children. This emphasizes that intensive and reliable communication is an important part of the resilience of immunization systems. Innovations in outreach methods about immunization have been shown to improve knowledge, attitudes, and immunization coverage in various community groups. Innovative methods such as remote telephone counseling have been effective in increasing immunization compliance during the pandemic, with coverage increasing from 65.2% to 88.2% in infants newly discharged from neonatal care (Murthy et al., 2022).

The use of a combination of lecture, discussion, leaflet, and poster methods has also been shown to improve mothers' understanding and attitudes towards basic immunization, where the addition of media such as leaflets provides more significant results than lectures alone (Purnamasari et al., 2020). Support from religious leaders has been shown to be very influential in increasing community participation in immunization in Indonesia, especially in Muslim communities that consider the halal aspect of vaccines. A study in Yogyakarta showed that religious leaders and community leaders are considered the main sources in decision-making regarding vaccine use, and they are ready to promote immunization if there is a halal label and trust in the government is maintained. The active involvement of religious leaders in vaccine socialization and education is very important to increase community acceptance, especially in the introduction of new vaccines such as rotavirus which were previously less well-known to the wider community (Padmawati et al., 2019).

This indicates the importance of a cross-sectoral collaborative approach in making the immunization program a success. Periodic evaluation of the implementation of immunization counseling is it is very important to identify barriers and opportunities for improvement. Routine evaluation and counseling by the Indonesian Ministry of Health has proven to play an important role in increasing immunization coverage in Indonesia. Effective counseling, such as that carried out at Posyandu, can increase mothers' knowledge about complete basic immunization, thereby encouraging more children to receive complete immunization according to national targets (Masulilli et al., 2023).

This study aims to describe the implementation of immunization counseling and the involvement of health workers or cadres in providing immunization. This study will also examine the extent to which counseling has an effect on increasing immunization coverage. By understanding the various factors that influence the effectiveness of counseling and the involvement of health workers and cadres, this study is expected to provide more targeted strategic recommendations to support efforts to increase the coverage of complete basic immunization, especially for toddlers as the most vulnerable group.

RESEARCH METHODS

This study used a quantitative descriptive design with a cross-sectional approach that aims to describe immunization counseling and the involvement of health workers or cadres in the process of providing immunization to toddlers.

The population in this study were all mothers who had toddlers. The sample used was 103 respondents who were selected using the simple random sampling technique, to ensure fair representation of the entire population and reduce the possibility of selection bias. The inclusion criteria in this study included mothers who had children aged 0 to 5 years and were willing to be respondents by signing an informed consent form.

This study examined two types of variables. The independent variables include the mother's experience in receiving immunization counseling (ever or not) and perceptions of the involvement of health workers or cadres (good or sufficient). Meanwhile, the dependent variable is the provision of immunization to toddlers, which reflects the real actions of mothers after receiving information or health service interventions.

RESULTS

Description of Immunization Counseling Factors with Immunization Provision

Table. 1
Frequency Distribution of Description
of Immunization Counseling on Immunization Provision

Immunization Counseling	F	%
Ever	85	82.5
Never	18	17.5
Total	103	100.0

Table 1 shows that mothers who have received immunization counseling are 85 respondents (82.5%) and mothers who have never received immunization counseling are 18 respondents (17.5%).

Description of the involvement of health workers or cadres in providing immunization

Table. 2
Frequency Distribution of the Description of the Involvement
of Health Workers / Cadres in Providing Immunization

Involvement of health workers	F	%
Enough	18	17.5
Good	85	82.5
Total	103	100.0

Table 2 shows that the health service of 18 respondents (17.5%) was sufficient and 85 respondents (82.5%) were good.

DISCUSSION

Description of Immunization Counseling Factors with Immunization

The results of the study showed that mothers had received immunization counseling as many as 85 respondents (82.5%) and mothers who had never received immunization counseling were 18 respondents (17.5%). From the results above, it can be seen that mothers in obtaining sources of information about immunization are very diverse.

The results of this study indicate that immunization counseling plays a crucial role in increasing maternal participation in the immunization program. The majority of respondents who received counseling tended to have higher knowledge and awareness of the importance of immunization, which ultimately encouraged them to complete their children's immunizations (Prihanti et al., 2023). Effective immunization counseling not only provides information, but is also able to influence community attitudes and behavior. In the context of immunization, good counseling can strengthen positive perceptions about vaccination and reduce doubts or rejections. This is in line with the research of Syilvia et al., (2025) which showed that the audio-visual counseling method was more effective in increasing maternal knowledge than the traditional lecture method.

In addition, this study also revealed that the main source of information about immunization came from health workers (51.5%). This shows that health workers and posyandu cadres play a key role in conveying accurate information and building public trust. Their active involvement in counseling, both face-to-face and digital media, has been shown to increase maternal understanding and participation in the immunization program (Kementerian Kesehatan Republik Indonesia, 2022).

However, there are still 17.5% of mothers who have never received immunization counseling. This challenge can be caused by several factors, such as unequal access to health services in remote areas or lack of even socialization (Ahmad, 2023). Therefore, innovations in counseling methods, such as the use of social media or distance counseling Murthy et al., (2022) need to be optimized to reach underserved groups. Overall, the findings of this study confirm that immunization counseling is an effective strategy to increase immunization coverage. Structured, sustainable outreach efforts involving various stakeholders, including health workers and integrated health post cadres, are very important to ensure optimal child health protection.

Description of the Involvement of Health Workers / Cadres in Providing Immunizations

The results of the study showed that the majority of mothers of toddlers who provided immunizations to toddlers, assessed that the service of health workers in providing immunizations was in the good category, namely 85 respondents (82.5%). The service of health workers in providing immunizations to toddlers is in accordance with what the mothers of toddlers expect, which will provide satisfaction to the mothers of toddlers in providing immunizations to toddlers. This level of satisfaction will encourage mothers of toddlers to carry out immunizations in the following stages.

The results of this study indicate that the role of health workers and cadres is very crucial in encouraging community participation in the immunization program. Their involvement is not only limited to providing vaccines, but also includes education, assistance, and effective communication with parents. Good service quality from health workers, such as friendly attitudes, clear communication skills, and responsiveness in providing information,

are the main factors influencing maternal satisfaction (Debela et al., 2022). A study by Lo et al., (2021) also supports this finding, showing that maternal satisfaction with immunization services increases when health workers are able to provide comprehensive and easy-to-understand information. In addition, home visits by health workers or posyandu cadres have been shown to be effective in increasing public trust in immunization, especially in areas with limited access (Murthy et al., 2022).

Posyandu cadres act as a vital link between health workers and the community, especially in disseminating information and motivating parents to take their children to health facilities (Sundari et al., 2025; Zell-Baran et al., 2023). Research by Khaeriah (2024) in Lengkong Kulon Village showed that the active involvement of cadres in immunization socialization was positively correlated with increased vaccination coverage. However, challenges such as lack of training and resources are still obstacles to optimizing the role of cadres (Ahmad, 2023). Empathetic communication from health workers also plays an important role in overcoming immunization doubts or refusals. According to Trifunović et al., (2021) a person-centered approach on parents' needs and responsive to their concerns can increase trust and intention to immunize.

This is in line with the findings of Zhou et al., (2021) who emphasized the importance of responding quickly and empathetically to negative emotions from parents to prevent delays in immunization. Overall, the involvement of high-quality health workers and cadres is key to the success of the immunization program. To maintain and increase immunization coverage, ongoing efforts are needed to strengthen the capacity of health workers and cadres, as well as increasing cross-sector collaboration.

CONCLUSION

The results of the study show that the immunization counseling factor plays an important role in increasing maternal participation in the toddler immunization program. As many as 82.5% of respondent mothers stated that they had received counseling about immunization, either through integrated health posts, health center officers, or other information media. The information provided through this counseling helps increase mothers' knowledge and awareness of the importance of immunization for children's health. In addition, the health worker factor also showed a positive contribution, where 82.5% of respondents considered that the services provided by health workers in the immunization process were quite good. The quality of service includes friendly attitude, communication skills, and the readiness of officers in providing information and immunization actions. This finding indicates that intensive counseling and good health worker services can build public trust and encourage active involvement in immunization programs.

SUGGESTION

It is hoped that other researchers can conduct research by considering confounding variables, other variables that can affect immunization and conducting observations over a longer period of time.

REFERENCE

- Ahmad, N. (2023). *Ketidakmerataan Fasilitas Kesehatan dan Tenaga Kesehatan di Indonesia*. Kompasiana.
<https://www.kompasiana.com/nabhan2104/64f055574addee637b69e5e2/ketidakmerataan-fasilitas-kesehatan-dan-tenaga-kesehatan-di-indonesia>

- Aminuddin, S. P. (2025). Pengaruh Sikap dan Dukungan Keluarga terhadap Kelengkapan Imunisasi Dasar Bayi di Papua: Tantangan dan Strategi Peningkatan. *ANWARUL: Jurnal Pendidikan dan Dakwah*, 5(1), 89-99. <https://doi.org/10.58578/anwarul.v5i1.4815>
- Debela, B., Negassa, B., Hareru, H. E., Sisay, D., & Soboksa, N. E. (2022). Maternal Satisfaction on Child Immunization Services of Rural Health Extension Workers in Dawie Harewa District, Northeast Ethiopia: A Community Based Cross-Sectional Study. *Environmental Challenges*, 7, 100455. <https://doi.org/10.1016/j.envc.2022.100455>
- Hartner, A. M., Li, X., & Gaythorpe, K. (2024). COVID-19 Related Disruption and Resilience in Immunisation Activities in LMICs: A Rapid Review. *BMJ open*, 14(8), e076607. <https://doi.org/10.1136/bmjopen-2023-076607>
- Kementerian Kesehatan Republik Indonesia. (2022). *Strategi Komunikasi Nasional Imunisasi 2022-2025*. Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat. Jakarta
- Khaeriah, A. S. (2024). Promosi Kesehatan Kader Posyandu Melati 6 dalam Pelaksanaan Pekan Imunisasi Nasional (PIN) di Desa Lengkong Kulon Pagedangan, Kabupaten Tangerang-Banten. *Pemberdayaan Masyarakat : Jurnal Aksi Sosial*, 1(3), 122–130. <https://doi.org/10.62383/aksisocial.v1i3.635>
- Lestari, A., Hidayati, S., Utary, D., & Anulus, A. (2023). Hubungan Intensitas Paparan Informasi Penyuluhan Imunisasi dengan Tingkat Pengetahuan Ibu dalam Pemberian Imunisasi Dasar Lengkap pada Balita di Dusun Mentigi Kabupaten Lombok Utara. *Nusantara Hasana Journal*. <https://doi.org/10.59003/nhj.v2i12.845>
- Lo, S., Mondal, T., Halder, D., & Saha, S. K. (2021). Quality of Routine Childhood Immunization and Mothers' Satisfaction Toward it in Gangajalghati Block of Bankura District of West Bengal, India. *Medical Journal of Dr. D.Y. Patil Vidyapeeth*, 14(3), 278-282. https://doi.org/10.4103/mjdrdypu.mjdrdypu_79_20
- Masulilli, F., Jurana, J., Irsanty, C., Pangaribuan, H., Emy, N. B., Supirno, S., Ayu, S., & Marlin, M. (2023). Penyuluhan tentang Imunisasi Dasar Lengkap pada Ibu Balita. *Jurnal Pengabdian Masyarakat Lentora*, 3(1), 9-15. <https://doi.org/10.33860/jpml.v3i1.3317>
- Murthy, S., Sawant, M., Doreswamy, S. S., Chandra Pothula, S., Yan, S. D., Singh Pathani, T., Thakur, D., Rajarama Sastry Vemuri, S., Upadhyaya, S., Alam, S., Alimelu, M., & Singh, H. (2022). Supporting Immunization Uptake during a Pandemic, Using Remote Phone Call Intervention among Babies Discharged from a Special Neonatal Care Unit (SNCU) in South India. *Vaccines*, 10(4), 507. <https://doi.org/10.3390/vaccines10040507>
- Padmawati, R. S., Heywood, A., Sitaresmi, M. N., Atthobari, J., MacIntyre, C. R., Soenarto, Y., & Seale, H. (2019). Religious and Community Leaders' Acceptance of Rotavirus Vaccine Introduction in Yogyakarta, Indonesia: A Qualitative Study. *BMC Public Health*, 19(1), 368. <https://doi.org/10.1186/s12889-019-6706-4>
- Prihanti, G. S., Hasna, A., Rusda, A. F., Prabandhari, F. D., Mayrina, H. W., Azzahrah, M., & Iskandar, M. T. (2023). The Impact of Promotion and Basic Immunization Counseling Program on Mother's Knowledge and Attitude. *Poltekita : Jurnal Ilmu Kesehatan*, 17(3), 838–847. <https://doi.org/10.33860/jik.v17i3.3349>
- Purnamasari, E., Lubis, N., & Ashar, T. (2020). The Effect of Counseling with Lecture and Leaflet Methods on Knowledge and Attitudes of Pregnant Women in Providing Basic Immunization. *Budapest International Research and Critics Institute*, 3(2), 956-964. <https://doi.org/10.33258/birci.v3i2.923>

- Rokom, R. (2023). *Cakupan Imunisasi Rutin Lengkap Kini Capai 94,9 Persen. Sehat Negeriku* <https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20230507/0142927/cakupan-imunisasi-rutin-lengkap-kini-capai-949-persen/>
- Siregar, E. (2022). *Faktor yang Berhubungan dengan Kejadian Ikterus Neonatorum pada Bayi Baru Lahir Usia 0 – 7 Hari di Wilayah Kerja Puskesmas Batu Horpak Kecamatan Tano Tombangan Angkola Kabupaten Tapanuli Selatan Tahun 2022*. Universitas Aufa Royhan. <http://localhost:8080/xmlui/handle/123456789/3068>
- Sundari, S. S., Mulyani, E. D. S., Mufizar, T., Rahmawati, A., Supriatman, A., Hartono, R., Hidayat, C. R., & Anwar, D. S. (2025). Empowerment of Posyandu Cadres in Tuguraja Village with Digitalization and Creative Health Innovations. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 8(1), 220-227. <https://doi.org/10.35568/abdimas.v8i1.5587>
- Sylvia, S., Ananti, Y., & Navelia, Z. I. (2025). Efektivitas Penyuluhan Media Audio Visual terhadap Tingkat Pengetahuan Ibu tentang Imunisasi Dasar di PMB Suratni. *Nursing Applied Journal*. 3(2). 98-115. <https://doi.org/10.57213/naj.v3i2.579>
- Trifunović, V., Bach Habersaat, K., Tepavčević, D. K., Jovanović, V., Kanazir, M., Lončarević, G., & Jackson, C. (2022). Understanding Vaccination Communication between Health Workers and Parents: A Tailoring Immunization Programmes (TIP) Qualitative Study in Serbia. *Human Vaccines & Immunotherapeutics*, 18(1), 1913962. <https://doi.org/10.1080/21645515.2021.1913962>
- Wardaya, E. C. E., Martini, M., Sutningsih, D., & Hestningsih, R. (2024). Pola Hubungan Kepercayaan dengan Penolakan Imunisasi Dasar di Wilayah Kerja Puskesmas Tembarak. *Jurnal Riset Kesehatan Masyarakat*, 4(1), 8-13. <https://doi.org/10.14710/jrkm.2024.22164>
- WHO. (2024). *Cakupan Imunisasi*. <https://www-who-int.translate.google/news-room/fact-sheets/detail/immunization-coverage?>
- Zell-Baran, L. M., Starling, A. P., Glueck, D. H., Bekelman, T. A., Norris, J. M., Adgate, J. L., Brown, J. M., & Dabelea, D. (2023). Vaccination Trends and Family-Level Characteristics Associated With Incomplete or Delayed Childhood Immunizations: The Healthy Start Study. *American Journal of Health Promotion : AJHP*, 37(4), 524–528. <https://doi.org/10.1177/08901171221136532>
- Zhou, X., Lin, L., Sun, R., Wang, X., Zhang, N., & Li, L. (2021). The Impact of Negative Emotional Reactions on Parental Vaccine Hesitancy after the 2018 Vaccine Event in China: A Cross-Sectional Survey. *Human Vaccines & Immunotherapeutics*, 17, 3042-3051. <https://doi.org/10.1080/21645515.2021.1907149>