

Qualitative Study of Parents' Perception of Infant Immunization Based on the Health Belief Model (HBM) at the South City Health Center

Ulfaidah Usman^{1*}, Siti Rahma², Mihrawaty S. Antu³

^{1,2,3}Program Studi Sarjana Keperawatan, Fakultas Olahraga dan Kesehatan, Universitas Negeri Gorontalo, Indonesia

*Corresponding Author: E-mail: ulfaidahusman@gmail.com

Article Info

Article history:

Received 16 Dec, 2025

Revised 19 Jan, 2026

Accepted 04 Mar, 2026

Keywords:

Parental Perception; Infant Immunization; Health Belief Model

ABSTRACT

The low coverage of complete basic immunization is still a public health problem in the work area of the South City Health Center. One of the factors that contribute to this condition is the perception of parents towards immunization. Wrong or unformed perceptions can influence parents' decisions in immunizing their babies. This study aims to explore in depth the perception of parents towards infant immunization based on the Health Belief Model (HBM) component. This study uses a qualitative design with a phenomenological approach supported by the perspective of symbolic interactionism. The study was carried out in the working area of the South City Health Center by involving nine parents who had babies aged 0–18 months, who were selected by purposive sampling. Data collection was carried out through in-depth interviews, observations, and documentation. The data was analyzed thematically. The results showed that parents' perceptions varied on each component of HBM. Some parents view babies as vulnerable to disease if they are not immunized, while others feel that their babies are not at risk because they appear healthy. The perception of disease severity tends to be low because concerns about the side effects of immunization are more dominant than the perception of disease danger. Most parents understand the benefits of immunization, but there are still doubts in some participants. Psychological and social barriers, especially fear of side effects and family influence, are the most dominant factors in immunization decision-making. The conclusion of the study shows that the decision to immunize infants is influenced by the interaction of all components of HBM. Therefore, it is necessary to strengthen health education that emphasizes the benefits of immunization, reducing barriers, and increasing parental self-confidence

INTRODUCTION

Immunization is one of the most effective public health efforts in preventing infectious diseases in infants and children. However, complete basic immunization coverage in Indonesia still faces various challenges. Gorontalo Province, especially Gorontalo City, has shown a downward trend in immunization coverage in recent years. This condition also occurs in the work area of the South City Health Center, where the achievement of complete basic immunization has decreased significantly.

Incomplete immunization increases the risk of babies contracting diseases that can actually be prevented, as well as potentially causing infectious disease outbreaks. Various studies show that in addition to health access and service factors, parental perceptions play an important role in determining immunization decisions. The Health Belief Model (HBM) is one of the theoretical frameworks that can be used to understand health behaviors, including immunization behavior, through six main components, namely vulnerability perception, severity perception, benefit perception, barrier perception, cues to act, and self-confidence.

RESEARCH METHODS

This study uses a qualitative design with a phenomenological approach supported by the perspective of symbolic interactionism. The research location is in the working area of the South City Health Center, Gorontalo City. The study participants were parents who had babies aged 0–18 months. A total of nine participants were selected using the purposive sampling technique.

Data collection was carried out through in-depth interviews, observations, and documentation studies. The interview was focused on exploring parental perceptions based on the six components of the Health Belief Model, namely vulnerability perception, severity perception, benefit perception, obstacle perception, cues to action, and self-confidence. Data analysis is carried out through the stages of data reduction, data presentation, and drawing conclusions. Data validity is maintained through triangulation of sources and methods

RESULTS AND DISCUSSION

Perceived Susceptibility

The results showed that the perception of parental susceptibility to disease in unimmunized children varied. Most parents view children as vulnerable to illness if they do not get immunized and are able to distinguish health conditions between children who are immunized and those who are not. This perception encourages the belief that immunization plays a role as an effort to protect against disease. However, there are parents who perceive children as not vulnerable because they look healthy, and normalize the risk of disease as a common condition in children. In addition, family pressure and influence, especially from husbands or in-laws, also reduce the perception of vulnerability, even though mothers are actually aware of the risk of disease without immunization.

Perceived Severity

The perception of disease severity in the elderly also shows variation. Most parents are more afraid of the side effects of immunization, such as fever and seizures, so immunization is perceived as a threat to the child. On the other hand, some informants realize that certain diseases, such as measles and polio, are dangerous diseases that can have serious consequences. However, there are also parents who think that diseases can be treated if they occur, so they are not seen as a condition to worry about. In fact, some informants consider measles to be a mild disease. These findings suggest that perceptions of disease severity have not been consistently formed among the elderly.

Perceived Benefits

Most parents understand that immunization provides real benefits for children's health, especially in increasing immunity and preventing the transmission of diseases in the surrounding environment. Immunization is also perceived to be able to protect children from long-term health risks. However, there are still parents who do not understand the benefits of immunization in depth, even doubting or rejecting the benefits. These doubts arise because of the belief that environmental cleanliness, a good diet, or curative treatment are enough to maintain children's health without the need for immunization.

Perceived Barriers

Perception of inhibition is the most dominant factor influencing immunization decisions. Obstacles experienced by parents include fear of needles and side effects of immunization, bad experiences after immunization, and rejection from husbands or in-laws. In addition, logistical constraints such as time constraints, dependence on companions, and the condition of children during the immunization schedule also strengthen the obstacles. The perception of this barrier is further exacerbated by exposure to misinformation from social media and personal attitudes in the form of dislike for immunization, thereby reducing parental motivation to bring children to immunization.

Cues to Action

Most parents need external cues to encourage immunization actions, such as invitations from family or neighbors, announcements through mosques, and reminders from health center officers. However, not all such cues are effective, especially when parents already have strong negative fears or beliefs about immunization. Some parents remain unresponsive despite being reminded, while a small number of others make immunization decisions independently without relying on external stimuli.

Self-efficacy

Parents' self-confidence in facing the post-immunization process and impact also varies. Some parents show a high level of self-confidence with the ability to find solutions, consult with health workers, and remain committed to continuing immunization. Others show moderate self-confidence through efforts to calm the child and manage mild side effects. However, there are parents with low to very low self-confidence, which is characterized by confusion, excessive worry, and feelings of inability to deal with the side effects of immunization, leading to rejection or discontinuation of immunization.

CONCLUSION

The conclusion of the study shows that the decision to immunize infants is influenced by the interaction of all components of HBM. Therefore, it is necessary to strengthen health education that emphasizes the benefits of immunization, reducing barriers, and increasing parental self-confidence

REFERENCES

1. Banerjee, A., Seth, A., Dhaliwal, B., Sullivan, M., Ghosh, S., Taneja, S., Patil, V., Das, M., & Bose, D. (2022). Vaccine acceptance in rural India: Engaging faith leaders as vaccine ambassadors. *Gates Open Research*, 6, 163.
2. Becker, M. H. 1974. *The Health Belief Model and Personal Health Behavior*. Health Education Monographs, 2, 324- 508. Charles B. Slack Inc. University of Michigan.
3. Chimukuche, R. S., Ngwenya, N., Seeley, J., Nxumalo, P. S., Nxumalo, Z. P., Godongwana, M., Radebe, N., Myburgh, N., Adedini, S. A., & Cutland, C. 2022. Assessing community acceptance of maternal immunisation in rural KwaZulu-Natal, South Africa: A qualitative investigation. *Vaccines*, 10(3), 415.
4. Gorontalo City Health Office. 2025. Data Management System (SEKDA) by the Office for Health Centers. <https://p2plkota.my.id>. 2025.
5. Gorontalo Provincial Health Office. 2025. Data Analysis Report on the Achievement of the Routine Immunization Program in the Second Quarter of 2025. <https://dinkes.gorontaloprov.go.id/laporan-analisis-data-capaian-program-imunisasi-rutin-triwulan-ii-tahun-2025>. July 11, 2025
6. Febriany, F., Putri, A. S. E., & Siswati, S. 2024. Determinants of Measles Rubella immunization behavior with the Health Belief Model approach. *Journal of Public Health Sciences*, 13(2), 166-174.
7. Glanz, K., Rimer, B. K., and Viswanath, K. 2008 *Health behavior and health education: Theory, research, and practice*. Fourth Edition. Jossey-Bass. San Francisco
8. Hafid, W., Sandalayuk, M., & Zees, D. C. 2024. Determinants of complete basic immunization (IDL) in toddlers. *Gorontalo Journal of Public Health*, 7(1), 34-42.
9. Janz, N. K., & Becker, M. H. 1984. The health belief model: A decade later. *Health Education Quarterly*, 11(1), 1-47.
10. Ministry of Health of the Republic of Indonesia & WHO. 2024. Immunization management training module. Directorate General of Disease Prevention and Control. Jakarta.
11. Ministry of Health of the Republic of Indonesia. 2015. Immunization textbook. Health Worker Education and Training Center. Jakarta
12. Ministry of Health of the Republic of Indonesia. 2025. World Immunization Week 2025: Let's complete immunization for a healthy generation towards a golden Indonesia. <https://kemkes.go.id/id/pekan-imunisasi-dunia-2025-ayo-lengkapi-imunisasi-untuk-generasi-sehat-menuju-indonesia-emas>. March 21, 2025.
13. Machmud, R., Glasauer, S., Gayatri, M., & Mikolajczyk, R. T. (2022). Mother's media use and children's vaccination status in Indonesia: A community-based cross-sectional study. *Children*, 9(6), 839.
14. Moleong, L. J. 2017. *Qualitative research methodology*. The 36th edition of the revised edition. Teenager Rosdakarya. Bandung.
15. Pakpahan, M., Siregar, D., Susilawaty, A., Tasnim, Mustar, Ramdany, R., Manurung, E. I., Sianturi, E., Tompunu, M. R. G., Sitanggang, Y. F., & Maisyarah, M. 2021. *Health promotion and health behavior*. Our Writing Foundation. Medan City
16. Putri, L. T. D., Faturrahman, Y., & Maywati, S. 2022. Analysis of the behavior of mothers who do not provide basic immunization to babies (Study of Health Belief Model Theory in Cicipung Village, UPTD Culamega Health Center, Tasikmalaya Regency in 2021). *Journal of Indonesian Community Health*, 18(1), 355-367.
17. Rambe, N. L., & Ramadhani, P. 2024. The factors causing the mother's non-compliance with basic immunization in Siderejo Hilir Village. *Imelda Scientific Journal of Midwifery*, 10(2), 84-89.
18. Smith, B., Sivertsen, N., Lines, L., & De Bellis, A. (2024). Exploring social media influences on vaccine decision-making in parents: A netnography. *Collegian*, 33, 124-131
19. Torun, G., Ar, I., Akgenç, F., & Karahan, A. 2025. The mediating effect of E-health literacy on health belief model-based vaccine attitudes among parents in Türkiye: A cross-sectional study. *BMC Public Health*, 25, 1952.
20. UNICEF. 2021. 7 consequences and risks if children do not get routine immunizations. UNICEF Indonesia. <https://www.unicef.org/indonesia/id/kampung-pengasuhan/kesehatan/cerita/7-konsekuensi-dan-risiko-jika-anak-tidak-mendapatkan-imunisasi-rutin>. July 3, 2021.

21. World Health Organization. 2024. Global childhood immunization levels stalled in 2023, leaving many without life-saving protection. <https://www.who.int/news/item/15-07-2024-global-childhood-immunization-levels-stalled-in-2023-leaving-many-without-life-saving-protection>. July 15, 2024.
22. Zhang, K. C., Fang, Y., Cao, H., Chen, H., Hu, T., Chen, Y. Q., Zhou, X., & Wang, Z. 2022. Are parents willing to vaccinate their children against COVID-19? A qualitative study based on the Health Belief Model. *Human Vaccines & Immunotherapeutics*, 18(5), 2076524.