

FACTORS INFLUENCING PARENTS' DECISION TO IMMUNIZE CHILDREN

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Abstract

Immunization has an important role as a preventive measure for various disease risks. Immunization is carried out to strengthen the body's defense system so that it is immune to attacks from various causes of disease. However, some mothers as parents have their own concerns about having their children immunized. The aim of this research is to determine the factors that influence parents' decisions to immunize their children. The method used in this research is literature review with a qualitative approach. The data analysis used is Miller and Hubber analysis, namely by data reduction, data presentation, and drawing conclusions. The research results show that maternal education and knowledge, family support, support from immunization officers, social media and the internet, and perceptions of child vulnerability. The research results show that maternal education and knowledge, family support, support from immunization officers, social media and the internet, as well as perceptions of children's vulnerabilities are factors that can influence parents' decisions to immunize their children

Keywords: Child; Immunization; Parental Decision

INTRODUCTION

Basic immunization in children is very important to strengthen the body's defense system so that it is immune to germs. Protecting infants from various risks of disease through immunization is the responsibility of parents and local health workers (CN & Chrismilasari, 2020)

Immunization is an effort to increase a person's immunity actively against a disease, so that if one day exposed to the disease will not get sick or only experience

mild illness (Safitri, 2019). Vaccines contain viruses that have been paralyzed. Vaccines contain viruses or bacteria that are killed or attenuated, and do not cause illness or put a person at risk for complications (Kharin et al., 2021). Protecting various risks of disease through immunization is the responsibility of parents and local health workers (CN & Chrismilasari, 2020).

However, according to data from the Indonesian Ministry of Health in 2023, there is an increase in the percentage of immunization coverage. The percentage of infants aged 0-11 months who received Complete Basic Immunization (IDL) was 92.7%, the percentage of infants aged 12-24 months who received further immunization under two years (*baduta*) was 93.2%, the percentage of infants aged 0-11 months who received PCV immunization until the second dose was 90.6%, while the percentage of children aged grade 6 Elementary School (SD) who had received further immunization included 1 dose of DT immunization, 1 dose of Measles-Rubella immunization and 2 doses of TD immunization as much as 91% (Kemenkes, 2023). This shows an increase in immunization coverage, although it shows that coverage is still not 100%.

Currently, there are still many false assumptions about immunization that develop in society and many are concerned about the risks of some vaccines. In this case, especially the role of the mother becomes very important because the closest person to the baby and who mainly takes care of the baby is the mother (Hartaty & Menga, 2019). Efforts to overcome the low immunization rate are by conducting basic immunization counseling training activities for health cadres in the place with the *cermah* method, discussion, question and answer, simulation, demonstration, regarding basic immunization in infants and toddlers (Yani, 2023).

Previous research conducted by Rachmah et al., (2022) stated that there are 2 factors that influence and parents to carry out complete basic immunization for their children, namely internal and external factors. Where internal factors are factors that are in the scope of individual parents themselves, namely age, education, work, knowledge, family support, perception and reminding. External factors that are external factors such as information received by parents both from counseling by health workers and from the role of community leaders, the distance of the house to the location of services, the composition of vaccines, and the availability of vaccines. Muklati & Rokhaidah, (2020) explained that factors that affect parental compliance in immunizing diphtheria in toddlers include age, education level, employment status, knowledge, attitudes, beliefs and family support.

Unlike previous studies, the update to this study is to deepen the explanation of the factors that influence parents' decisions in immunization. The importance of immunization is as a preventive effort to avoid various diseases that can be prevented by immunization (PD3I). However, some parents have various concerns if immunization is carried out so that the low immunization rate in Indonesia. Thus, the purpose of this study is to determine the factors that influence parents' decision to immunize.

RESEARCH METHODS

This research uses *literature review* method with qualitative approach. *Literature review* is to provide a framework related to new findings and previous findings to identify indications of the progress of the results of a study through comprehensive research and interpretation results from literature related to certain topics in which

identify research questions by searching and analyzing relevant literature using a systematic approach (Sumartiningsih & Prasetyo, 2019). While qualitative is defined as a strategy for finding meaning, understanding, concepts, characteristics, symptoms, symbols and descriptions of a phenomenon, focused and multimethod, natural and holistic, prioritizing quality, using several ways, and presented narratively in scientific research (Sidiq et al., 2019).

The data analysis used is a *simplified approach*. The articles used are focused on original *empirical research articles* or research articles that contain the results of actual observations or experiments where there are abstracts, introductions, methods, results, and discussions of research.

The article search strategy uses databases available on Google Scholar and Pubmed. The keywords in finding articles are parental decisions, and immunizations. The stages taken in the *simplified approach* analysis include summarizing each critical review of the literature. Obtained search results of 17,500 articles with the keyword *Factors Influencing parents to Immunize Children* then determine the strengths and weaknesses of literature and to see the relationship between one literature and another (Sidiq et al., 2019)

RESULT AND DISCUSSION

As a result of a *literature review* of 10 articles obtained, researchers found factors that influence parents' decisions to immunize children.

Table 1 Result of a Literature Review of 10 Articles Obtained

No	Researcher Name	Research Title	Research Results
1	(Hadisuyatmana et al., 2019)	Factors Influencing Mothers' Intention to Immunize Children Younger than Five Years of Age in West Borneo: a Cross-Sectional Study	Mothers' intentions are influenced by suggestions from family members, which indicate that their decision-making capacity is limited and dependent on other family members. Further investigation is needed to uncover the underlying reasons for non-compliance.
2	(Callaghan et al., 2019)	Parent psychology and the decision to delay childhood vaccination	The decision by parents to delay vaccinating children is an important public health issue associated with conspiratorial thinking and needle sensitivity.
3	(Mustamu & Markus, 2019)	Parents Determination Factors Influencing Incomplete Basic Immunization for Infants in Sorong City, West Papua Province.	Number of children, support of immunization officers, distance to immunization sites, and behaviors that contribute to immunization incompleteness.
4	(Febriastuti et al., 2014)	Parental Compliance in Providing Basic	Most mothers have a moderate perception of the completeness of immunization due to <i>control belief</i> and

		Immunization Completeness to Infants 4-11 Months	<i>perceived belief</i> that is lacking in compliance with immunization completeness. Good perception has an effect on increasing parental compliance in providing basic immunization to infants. Most mothers have not too high intentions towards the completeness of immunization. Good intentions have an effect on increasing parental compliance in providing basic immunization to infants.
5	(Mauidhah et al., 2021)	Parent Psychology and The Decision to Delay Childhood Vaccination	Factors that can affect compliance in the provision of complete basic immunization are modification factors consisting of age, gender, ethnicity, socioeconomic and knowledge.
6	(Lafnitzegger & Gaviria-Agudelo, 2022)	Vaccine Hesitancy in Pediatrics	Social media and the internet have been described as key elements that can negatively influence parental decision-making regarding vaccines. The next focus is to explain effective interventions that can be implemented by health care providers. Non-confrontational and open discussions, as well as a trusting and strong relationship between parents and health care providers, seem to create a strong foundation for vaccine acceptance.
7	(Hobani & Alhalal, 2022)	Factors Related to Parents' Adherence to Childhood Immunization	A linear combination of perceived infectious disease severity, perceived susceptibility of their children, perceived benefits of immunization, perceived fewer barriers to immunization, immunization-related cues to action, and self-efficacy predicted immunization nonadherence rates ($F(11.220) = 2.595, p < 0.001$) and explained 12% of the variance. However, only perceptions of child vulnerability, perceptions of inhibitions, and self-efficacy independently predicted parental disobedience.
8	(Hasibuan & Ginting, 2023)	Factors Affecting Maternal Compliance with Basic Immunization	Factors affecting immunization compliance are education, knowledge, and family support.

		for Infants Aged 0-12 Months in Kampong Blang Village and Pageu Village, Blang Bintang District, Aceh Besar Regency in 2020	
9	(Park et al., 2023)	Parental Factors Affecting Decision to Vaccinate Their Daughters against Human Papillomavirus	Parents' perceived knowledge and perceived risk had a significant impact on their decision to vaccinate their daughters with the HPV vaccine. Parents who have a strong belief that the HPV vaccine is safe in terms of side effects are 10 times more likely to decide to vaccinate their daughters with the HPV vaccine. Parental factors including HPV-related behaviors and health awareness were found to be associated with parents' decisions to vaccinate their daughters against HPV. To increase the use of HPV vaccine at the age of 12, it is necessary to increase parental awareness about HPV through public communication supported by scientific evidence.
10	(Maemunah et al., 2023)	Factors Affecting the Completeness of Basic Immunization in Infants at Posyandu Dewi Sartika, Malang City	The results of the study can be concluded that there are 7 factors that are significantly related to the completeness of basic immunization in infants at Posyandu Dewi Sartika, Malang City. These factors are occupation, knowledge, attitude, education, experience, health information and age.

The purpose of development in the health sector is to reduce morbidity and death rates due to diseases, both infectious and non-communicable diseases, among others, through improving health, and disease prevention (preventive). One of the preventive measures in improving public health status is immunization (Lestari et al., 2019). The Indonesian Ministry of Health implements the Immunization Development Program (PPI) in children in an effort to reduce the incidence of diseases that can be prevented by immunization (PUTRI, 2021).

Immunization is an effort to reduce child morbidity and mortality, but there are still many children who have not received immunization (Rahmatina & Erawati, 2021). The participation of mothers, and the support of all components of society are very important in the success of immunization programs. It should be emphasized that immunization of infants and children not only provides prevention of these children but will have a much wider impact because it will prevent widespread

transmission with an increase in the level of immunity in general in the community (Loriana & Mustaming, 2018). Based on the results of the *literature review*, the factors that influence parents' decision to immunize are as follows.

1. Mother's Education and Knowledge

In his research, Saudah (2023) stated that maternal education affects immunization compliance. Education has a very important role in determining human quality, with education humans will obtain knowledge and information. The knowledge and information obtained will certainly affect a person's compliance. In addition, the higher a person's level of education, the more quality of life he will have and the higher one's level of education, the higher his understanding.

Supported by the results of research by Maemunah, N., Susmini, & Tuanany, N. (2023) which states that one of the 7 factors that influence parents' decisions to immunize is parental education. Parental knowledge about certain diseases is the main reason for immunization. The decision of parents to immunize their children is influenced by the information obtained about the immunization so that parents have good knowledge (Arista et al., 2021).

Formal, non-formal, and informal education can influence a person in making decisions and behaving, with education a person can increase intellectual maturity, so that they can make decisions in action (Senewe et al., 2017). Included in determining the decision to immunize.

2. Family Support

Hadisuyatmana, S., Krisnana, I., & Sipahutar, M. A. (2019) stated that mothers' intentions are influenced by suggestions from family members, which indicates that their capacity to make decisions is limited and depends on other family members.

The family is the smallest part of society consisting of the head of the family and other family members who live in one house because of blood relations and marriage ties, so that there is interaction between family members with other family members, if one of the family members gets health problems, it will affect other family members. So that the family is the focus of strategic health services because the family has a major role in maintaining the health of all family members, and family problems are interrelated, the family can also be a place for decision making in health care (Rahmawati & Umbul, 2014).

3. Immunization Officer Support

Lafnitzegger, A., Agudelo, C. G. (2022) stated that non-confrontational and open discussions, as well as a trusting and strong relationship between parents and health care providers, seem to create a strong foundation for vaccine acceptance.

Health workers can strive to provide services and explanations to patients professionally in order to provide good service and explanation of patient needs. In addition, the support of health worker services has an important role to increase maternal knowledge in meeting immunization needs. A health worker has a role as an educator (Widaningsih, 2022). It is expected that health workers will increase the knowledge and attitudes of mothers who do not comply with immunization of their children, among others, with more intensive counseling (Ridwan & Legiran, 2015).

4. Social Media and the Internet

Social media and the internet have been described as key elements that can negatively influence parental decision-making regarding vaccines (Lafnitzegger, A., Agudelo, C. G. 2022).

The popularity of social media has been identified as one reason for growing parental anxiety about the safety of vaccines for children. The internet is one of the important tools for many people to find information, support health services, and share health knowledge, opinions, and experiences (Nainggolan & Senewe, 2020). Fear of side effects after vaccination or often referred to as Post-Immunization Adverse Events (KIPI) is also a scourge for parents who doubt the effectiveness and efficacy of vaccines. They say that previously healthy children became ill after vaccination. Vaccination hesitancy is also often associated with conspiracy theories. Conspiracy theories are widely spread through social media (Rahmawati & Umbul, 2014).

5. Perception of Children's Vulnerability

(Hobani & Alhalal, 2022) stated that children's perceptions of vulnerability, perceptions of obstacles, and self-efficacy independently predict parental non-compliance in immunizing their children.

Concerns about MR immunization side effects are related to parents' perceptions that there are obstacles in MR immunization. In addition, the emergence of worry due to immunization side effects is also related to previous experiences experienced by parents regarding the history of immunization to their children (Pugliese-Garcia et al., 2018).

Mothers have perceptions: their children are vulnerable to PD3I if not immunized; these diseases are dangerous because they can cause death and disability; Immunization is useful because it is a form of prevention so that children do not get sick and do not experience health problems after immunization; although there are obstacles to immunization during the pandemic due to fear of contracting COVID-19, besides having to deliver, different health facility procedures during the pandemic and delays in service providers, as well as children's health conditions (Wahyuni & Hadi, 2022).

Various diseases can attack the body regardless of age and gender, but in fact it shows that it affects children more than adults due to the relatively weak resistance of the body compared to adults. So the need for preventive efforts, one of which is by immunization. However, some factors that influence parents' decisions to immunize children are maternal education and knowledge, family support, immunization officer support, social media and the internet, and perceptions of children's vulnerability.

CONCLUSION

Based on the results of the literature review, it was found that the goal of health development is expected to reduce morbidity and death rates due to disease. One of the preventive efforts in order to improve health is by immunization. However, there are still many children who have not received immunization, and factors that influence parents' decisions to immunize children are maternal education and knowledge, family support, support from immunization officers, social media and the internet, and perceptions of children's vulnerability.

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