



Mothers' Knowledge Before and After Counseling on Child Immunization using Learning Video Media

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ABSTRACT

The decline in infant mortality remains a concern, even though it has decreased over the past five decades. Some causes of death can be prevented through immunization. The success of immunization counseling depends on effective and efficient methods. This study aimed to determine the difference in mothers' knowledge levels before and after counseling on child immunization using learning video media. The research used a quasi-experimental design with a one-group pre-test post-test approach. The study population consisted of mothers who attended immunization counseling at the Puskesmas. The results showed that the average mother's knowledge before counseling was 65 (SD = 0.5), categorized as "sufficient." After counseling, the average increased to 83 (SD = 0.6), categorized as "good." The Wilcoxon Signed Ranks test showed a significance value of 0.000, indicating a significant difference before and after counseling. In conclusion, counseling using learning video media effectively improves mothers' knowledge about child immunization. Health workers are encouraged to provide regular and creative health education using the most effective media to enhance mothers' understanding of immunization.

Keywords: *Child Immunization, Counseling, Knowledge, Videos.*

INTRODUCTION

The under-five mortality rate is still a topic of discussion and attention worldwide even though globally there has been progress in decreasing it from 4% in 2000-2009 to 2.7% in 2010-2017 because it is still above 1%. In 2021, approximately 13,800 children under five will die every day. In 2021, 5 million children aged under 5 years will die and the main causes are infectious diseases such as pneumonia, diarrhea and malaria. Other causes are premature birth and related intrapartum complications. The high number of deaths from these causes is largely preventable (Nandi & Shet, 2020; UNICEF, 2022).

One of the efforts made to prevent child deaths is through immunization. Global efforts include increasing public awareness and providing complete immunization for babies and children. The effectiveness of immunization as an antibody is considered quite powerful and can even prevent 2-3 million deaths every year. Immunization is a global health improvement and success story that saves countless lives every year. Vaccines reduce the risk of disease by activating the natural defenses in the human body. When you get a vaccine, the body's immune system will respond (WHO, 2022).

Millions of lives are saved annually by immunization, making it a success story in

global health and development. Vaccines lower the likelihood of contracting an illness by enhancing our body's defenses against infection. With the availability of vaccinations against over 20 deadly illnesses, people of all ages can now live longer, healthier lives. As of right now, vaccinations stop between 3.5 and 5 million fatalities annually due to illnesses including measles, tetanus, diphtheria, and pertussis. Immunization is an unquestionable human right and an essential part of primary healthcare. (Dimitrova et al., 2023; Institute of Medicine, 2013; WHO, 2022)

Vaccines are considered the cheapest and most effective method for dealing with preventable diseases when compared to other methods, for example improving sanitation and providing clean water which can also prevent disease, but this requires large infrastructure and a lot of time. (Nandi & Shet, 2020; Ozawa et al., 2012)

In Indonesia, the immunization program is regulated by the Ministry of Health of the Republic of Indonesia. The government is responsible for setting targets for the number of immunization recipients, age groups and procedures for administering vaccines to targets. The implementation of the immunization program is carried out by government and private health service units. Private institutions can provide

immunization services as long as they meet the licensing requirements set by the Ministry of Health. In Indonesia, basic immunization services or routine immunizations can be obtained through service centers owned by the government, such as Puskesmas, Posyandu, Puskesmas Pembantu, Hospitals or Maternity Hospital (Al Biruni, 2023; Timur, 2017).

Vaccines have helped in reducing morbidity and vaccine-preventable diseases significantly but this is still a matter of debate among parents. Many parents are still worried about the safety of using vaccines for their children and whether vaccines are really needed to prevent disease or whether they will actually make the child sicker. This doubt causes rejection of the use of the vaccine. This can occur due to lack of knowledge of parents or the community about child immunization. (O'Leary et al., 2024)

Increasing the achievement of immunization targets can be done by increasing knowledge through outreach to the community and related parties. The goal of protecting children in Indonesia from the threat of disease will not be achieved if it is not supported by all parties, especially parents. Public acceptance of immunization is very important to ensure that every child can be protected from various diseases that can be prevented by immunization. Therefore, it

is necessary to continue to encourage the implementation of health education or outreach to the community to increase public knowledge about the importance of immunization in children (Arlinta, 2022).

Counseling are activities that need to be well prepared because they are related to the output and outcome of the counseling objectives. Successful achievement of counseling objectives is related to the selection of effective and efficient counseling methods. Counseling methods are divided into 3 types, such as methods based on communication techniques consisting of direct (face to face communication) and indirect (indirect communication); method based on the number of targets and the adoption process consisting of individual relationships, group relationships and mass relationships; and methods based on the receiving senses which consist of methods that can be seen, methods that can be heard and methods that can be seen and heard. Choosing the right method is one of the factors that determines the success of extension activities. So the choice of method must be appropriate, according to the circumstances (Setiawan, 2021).

Currently we are required to continue to develop along with technological developments. Therefore, innovation in the form of counseling methods is also needed which also involves technological

elements in its implementation. Video media is included in the outreach methods that involve sight and hearing and support the innovation demands of technological developments in the Industrial 4.0 era.

Based on the background and phenomena, researchers are interested in conducting research on differences in mothers' knowledge levels before and after counseling on child immunization using learning video media.

METHOD

This research uses a quasi experimental type with a one group pre-test post-test design. The first treatment given to the

sample was through a pre-test, then the sample was given treatment in the form of education or counseling on complete immunization for toddlers, after that they were given a post-test. Sample measurements in terms of knowledge before and after were carried out.

The population in this study were all mothers who had children under 5 years of age who attended the counseling invitation and willing to be a respondent in the work area of Puskesmas Pembantu Bayur in October 2022, totaling 18 people. The sample in this study was total sampling to all respondents who met the criteria

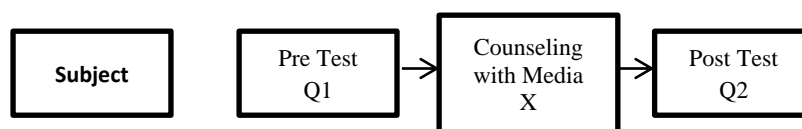


Figure 1. Conceptual framework

Respondent data collection was carried out by collecting form sheets containing the identity of the respondent and matters related to the inclusion criteria to avoid errors in the research. The instrument in this study was a questionnaire with closed questions and has been tested for validity and reliability. Filling out the questionnaire was carried out by researchers assisted by posyandu cadres before and after the counseling was carried out. The questionnaire contains 25 true or false questions and each question has a

score of 5. The independent sample T-test will be used as the data analysis method. The non-parametric statistical test Wilcoxon was chosen since the data normalcy test results were not normally distributed. To determine whether a given hypothesis is strong enough to be accepted or rejected, hypothesis testing is used. A significance threshold of 0.05 is applied in statistical computations to determine their significance. $P > 0.05$ indicates not significant, but $P \leq 0.05$ indicates significance.

RESULTS AND DISCUSSIONS

Result

The results were obtained from the mother's knowledge scores before and after the counseling was carried out using video learning media which was measured using a questionnaire given at the beginning before the counseling was carried out and at the end of the counseling activities using video media.

Table 1 shows that the average mother's knowledge about child immunization before being given counseling using

learning video media was (M) = 65 with Standard Deviation (SD) = 0.5, which indicates that the mother's level of knowledge was "sufficient". The average mother's knowledge about child immunization after being given counseling using learning video media is (M) = 83 with Standard Deviation (SD) = 0.6, which indicates that the mother's level of knowledge is "good". This shows that counseling has succeeded in increasing mothers' knowledge regarding child immunization.

Table 1. Descriptive analysis results of Mother's level of knowledge about child immunization at pretest and posttest

Tingkat Pengetahuan	Pre Test		Post Test	
	Mean	Std. Dev	Mean	Std. Des
	65	0,5	83	0,6

Source : (Data Primer , 2023)

Table 2. Analisis statistik Wilcoxon Signed Ranks Test

Posttest - Pretest	
Z	-3,906 ^b
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Source : (Data Primer, 2023)

Table 2 shows that mother's knowledge has a significance of 0.000. Therefore, providing child immunization education using learning video media provides significant results.

Discussion

The research results showed that there was an increase in the mother's level of knowledge from before the counseling was

carried out to after the counseling was carried out using learning video media. The results of the analysis show that mother's knowledge has a significance of 0.000. Therefore, providing child immunization education using learning video media provides significant results. Several studies said that health education provided through video media can increase participants' knowledge, such as research

by Drakow whose research results explain that health education via video can have an effect on changing perceptions, increasing self-efficacy and understanding. (Drokow et al., 2021) Some researchs said that through audiovisual media, for example videos, have a positive effect on increasing the knowledge of counseling participants. (Putri Hariastuti et al., 2020) (Yuliwati & Solihatul Afiah, 2022)

Other research said that the average knowledge of mothers of toddlers before being given video media was low and after being given video media the knowledge of mothers of toddlers increased. (Dini Rahayu et al., 2021) In 2022 research, video media in the form of audio visuals had an influence on increasing the knowledge of mothers who had babies 0-24 months. (Rosa et al., 2022)

In general, many studies have shown that through counseling mothers can increase their knowledge about children's immunizations using various education media. a study showed that there is a significant difference in knowledge between knowledge before and after video intervention (Sayuti & Sari, 2022).

The use of alternative media is very influential in providing health education about immunization. Through the use of audio, visual and audio-visual media, it can reduce doubts about vaccines after intervention. Educational video

interventions distributed via WhatsApp groups can be associated with reducing hesitancy towards vaccine use and can be used as a health education tool among parents and the community in Indonesia. (Lubis et al., 2022) However, the media used is not only video. Many other media are also used for outreach such as posters, leaflets, WhatsApp media and others.

Research showed that mothers' knowledge about complete basic immunization for babies and toddlers can be increased through providing outreach using leaflet media (Anggraeni et al., 2022). Another researchers conducted research with results obtained by increasing mothers' knowledge scores and attitudes towards providing complete basic immunization (Kharin et al., 2021).

Therefore, further research needs to be carried out regarding the most effective methods for optimizing education so that mothers' knowledge about children's immunization increases well.

THANK YOU

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CONCLUSION

Based on the research, it can be concluded that there is a difference in the mother's level of knowledge before and after counseling on child immunization using learning video media. It is hoped that future researchers can improve their research results perhaps with a larger sample size and better research methods.

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