



Lecture Methods and Media Leaflets on Mother's Knowledge in ISPA Prevention

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Abstract

Acute Respiratory Infection (ARI) is an acute infectious disease that attacks one or more parts of the respiratory tract from the nose (upper tract) to the alveoli (lower tract) including their adnexa such as the sinuses, middle ear cavity and pleura. This study aims to determine the effect of health education using the lecture method and leaflet media on increasing mothers' knowledge about the prevention of ARI (Acute Respiratory Infection) in the work area of the UPT Puskesmas Hiliduho. This type of research is a quantitative research with a quasi-experimental research design. The design used was pretest and posttest group design without control group. The research location was carried out in the working area of the Hiliduho Health Center, Hiliduho District, Nias Regency. When this research was conducted in August 2021. The population in this study totaled 389 people. The sample in this study was determined by purposive sampling technique. The number of samples is 80 people. The difference in mean knowledge of mothers before and after the lecture method health counseling was known to have a significant value from the t test for respondents in the lecture group, namely $p = 0.000$ ($p < 0.05$). The mean value of the respondent's knowledge before the lecture intervention was 1.98 while the mean value of the respondent's knowledge after the lecture was 1.18. Differences in the average knowledge of mothers before and after the media leaflet health counseling was carried out $p = 0.000$ ($p < 0.05$). The mean value of the respondents' knowledge before the leaflet intervention was 5.68 while the mean value of the respondents' knowledge after the leaflet was 12.90. Therefore it is necessary to provide counseling on an ongoing basis, especially to mothers under five.

Keywords: lecture method; leaflet media; ISPA

Introduction

Acute Respiratory Infection (ARI) is an abbreviation of Acute Respiratory Infection, this term is adapted in English Acute Respiratory Infections (ARI). Acute infectious disease that attacks one or more parts of the respiratory tract from the nose (upper tract) to the alveoli (lower tract) including their adnexa such as sinuses, middle ear cavity and pleura. ARI is a disease that often occurs in children, because the child's immune system is still low. The incidence of cold

cough in toddlers in Indonesia is estimated to be 3 to 6 times per year, which means that an average toddler gets 3 to 6 cold cough attacks a year. (Nguyen et al., 2023)

Environment-based disease is a pathological condition in the form of abnormal function or morphology of an organ of the body caused by human interaction with everything around it that has the potential for disease. Environmental-based diseases are still a problem today. ARI and diarrhea which are environmental-based diseases are always included in the top 10 diseases in almost all health centers in Indonesia. According to the Profile of the Directorate General of PP&PL in 2006, 22.30 % of infant deaths in Indonesia were due to pneumonia. while the morbidity of diarrheal diseases has been increasing from year to year where in 1996 it was 280 per 1000 population, then increased to 301 per 1000 population in 2000 and 347 per 1000 population in 2003. In 2006 this figure increased again to 423 per 1000 population. (Toh et al., 2023)

Mother is the closest person in a child's life. Extensive knowledge possessed by mothers should be able to play an active role in detecting and preventing the occurrence of ARI earlier and carry out prevention independently at home. The large number of mothers who do not understand and the lack of information obtained about ARI will affect the increase in ARI cases in infants or toddlers. Because none of the parents want their child to fall sick, even though their child has an Upper Respiratory Tract Infection (ARI). As early as possible, parents will look for ways or prevention so that their children do not have further complications. Health education is considered an effort to bridge the gap between health information that is correct, it will motivate mothers of toddlers to apply this information, one of which is information regarding the prevention of ARI, this can prevent toddlers from experiencing ARI in the golden period, namely the period of growth and development. (Steuart et al., 2023)

From the results of interviews with 9 mothers who had toddlers who visited the Puskesmas when the preliminary study was being carried out, it was found that 6 of them did not know anything about ISPA due to a lack of information and knowledge about ISPA, 2 of whom knew what ISPA was but how to prevent and treat it. ARI is still not well known and 1 mother knows how to prevent ARI because the mother's toddler has been treated for ARI. (Noh et al., 2023)

As for the formulation of the problem in this study is "how is the effect of health education using the lecture method and leaflet media on increasing mother's knowledge about the prevention of ARI (Acute Respiratory Infection) in the work area of the Hiliduho Health Center UPT .

Literature Review

ARI is still an important health problem because it causes high infant and child mortality, which is approximately 1 in 4 deaths. Each child is estimated to experience 3-6 episodes of ARI each year . 40% -60% of visits to the Puskesmas are ARI. Of all deaths caused by ARI, it covers 20% - 30%. The biggest death is generally due to pneumonia and in infants aged less than 2 months. Until now, the mortality rate for severe ARI is still very high. Death is often caused because sufferers come for treatment in severe conditions and are often accompanied by complications and malnutrition. According to the World Health Organization (WHO) estimates the incidence of Acute Respiratory Infection (ARI) in developing countries with under-five mortality rates above 40 per 1000 live births is 15% -20% per year in the under-five

age group. In data on the morbidity of pneumonia in Indonesia per year, it ranges from 10-20% of the annual under-five population. (Wollny et al., 2023)

In increasing one's awareness and motivation in preventing the risk of disease, especially in the Hiliduho District area, health education interventions are very effective to do. Therefore health education delivered through visual aids such as brochures or leaflets can encourage willingness and increase knowledge and understanding in preventing a disease. Health education is an activity that can influence changes in the behavior of respondents, one of which is a change in knowledge. By giving counseling, the respondent gets learning which results in a change from those who previously did not know to know and those who previously did not understand to understand. (Abudureyimu et al., 2023)

Research methods

This type of research is a quantitative research with a quasi-experimental research design. The subject group was observed before the intervention was carried out, then observed again after the intervention was carried out. The design used was pretest and posttest group design without control group.

The population in this study amounted to 389 people. This population is the number of patients who visited the Hiliduho Health Center from January to December 2020. Some of these patients were repeat patients. The sample in this study was determined by purposive sampling technique. The sample size in the study was determined using the Slovin formula in. Then the sample in this study was divided into two groups, the lecture group numbered: 40 people, while the leaflet group: 40 people.

The data analysis technique used in this study is univariate analysis and bivariate analysis. Univariate analysis is needed to see the minimum-maximum, mean, median, mode, standard deviation of the demographic data, namely age, education, occupation, religion of the respondents and the mother's knowledge questionnaire about ISPA prevention. Bivariate analysis is needed to see the average knowledge before and after receiving health education about acute respiratory infections, using the T-Dependent test with a 95% confidence level (CI) at a value of $\alpha = 0.05$. The researcher conducted a normality test first, if the data were normally distributed, the Paired T-Test was used with a 95% confidence level (CI) at $\alpha = 0.05$, but if the research data were not normally distributed, the Wilcoxon test was used at 95% CI. and $\alpha = 0.05$.

Results

Based on the results of research that was conducted on 80 respondents who were mothers of toddlers with ISPA at the Hiliduho Health Center in 2020 it was found that the age of the majority of respondents was between the ages of 20-30 as many as 43 people (53.8%) and the minority of respondents aged >30 years as many as 37 people (46.2%).

Based on the education of the respondents, it was known that the majority of respondents with high school education were 41 people (51.2%) and a minority of respondents with junior high school education were 3 people (3.8%). Based on the work of the majority of respondents as farmers as many as 35 people (43.8%) and a minority of respondents as civil servants as many as 5 people (6.2%). Based on religion, the majority of respondents were Protestant

Christians, as many as 59 people (73.8%) and the minority of respondents were Catholic Christians, as many as 21 people (26.2%).

Respondents' knowledge (Ex . Lectures) prior to counseling the majority of respondents had poor knowledge of 39 people (97.5%) and a minority of respondents who had good knowledge of 1 person (2.5%). Knowledge of Respondents (Ex . Leaflet) prior to counseling the majority of respondents with poor knowledge were 37 people (92.5%) and a minority of respondents with good knowledge were 3 people (7.5%). Respondents' knowledge (Ex . Lectures) after counseling the majority of respondents with good knowledge were 33 people (82.5%) and a minority of respondents with poor knowledge were 7 people (17.5%). Respondent knowledge

(Ex . Leaflet) after counseling, the majority of respondents with good knowledge were 26 people (65.0%) and a minority of respondents with poor knowledge were 14 people (7.5%).

The researcher conducted a normality test first to test whether the data had a normal distribution or not using the Kolmogorov-Smirnov test and it was known that the significance value was 0.633 which means more than 0.05 so it can be concluded that the data is normally distributed, thus the test used is the paired sample test t-test.

Based on the results of the paired sample t-test, it is known that the significant value of the t test in the lecture group respondents is $p = 0.000$ ($p < 0.05$). The mean value of the respondents' knowledge before the lecture intervention was 1.98 while the mean value of the respondents' knowledge after the lecture was 1.18. Meanwhile, for the leaflet group, it was found that the significant value of the t-test for leaflet group respondents was $p=0.000$ ($p<0.05$). The mean value of the respondents' knowledge before the leaflet intervention was 5.68 while the mean value of the respondents' knowledge after the leaflet was 12.90.

Discussion

Knowledge is the result of remembering something, including remembering events that have been experienced either intentionally or unintentionally, and this occurs after people make contact or observe a particular object. According to the researcher's assumption that there is still a lot of poor knowledge, this is caused by the mother's education factor, the majority of whom have elementary school education and cultural factors which are still very influential by assuming that when a child has a cough it is a sign that the child is showing signs of good growth.(Tee et al., 2023)

Knowledge is related to the prevention of ISPA, as research conducted by Marlina (2013) stated that there is a significant relationship between the knowledge of the head of the family and the prevention of post-flood ISPA with a value of $p=0.014$ ($p<0.05$) . The Effect of Health Counseling with Lecture Methods and Media Leaflets on Mother's Knowledge about ISPA Prevention.(Savic et al., 2023)

Knowledge is the result of "knowing" and this occurs after people perceive a particular object. Sensing occurs through the five human senses, namely sight, hearing, smell, taste and touch alone. At the time of sensing to produce knowledge is strongly influenced by the intensity of perceptual attention to the object. Most of human knowledge is obtained through the eyes and ears. By itself, at the time of sensing to produce knowledge is greatly influenced by the intensity of attention and perception of the object. One of the efforts to provide information that is strong enough to influence behavior change is by providing counseling. Through this

method the information that will be provided can be well received by groups of mothers of children suffering from ARI and is effective in changing the knowledge and attitudes of mothers of children suffering from ARI.(Ciofi degli Atti et al., 2023)

Counseling as a process of changing knowledge and attitudes that demands adequate preparation and knowledge for extension workers and their targets. Mothers under five can change attitudes through information that has been obtained through counseling about acute respiratory infections (ARI) after a few minutes later, with the consideration of being given the opportunity to be able to apply it so that the stage of knowledge to the stage of behavior is formed, and after the posttest there is an increase in knowledge and attitudes of mothers of children suffering from ISPA.(Zaytseva et al., 2023)

The results of this study are also in line with(Jayamanna & Jayaweera, 2023), researchers concluded that the results of this study indicated that there was a significant relationship between health education and mother's knowledge about ARI in toddlers at Posyandu Kelurahan Limo. The results of this study are in accordance with the theory that mother's knowledge can be influenced by health education carried out, namely from statistical tests showing an average difference of -1.019 with a standard deviation of 1.770. The results of the statistical test obtained a p-value = $0.000 < 0.05$, thus indicating that there was a significant relationship between health education and mother's knowledge about ARI in toddlers at Posyandu Kelurahan Limo⁹. A similar study has also been conducted by Listautin (2020), based on the results of the study it was found that there was a relationship between mother's knowledge and the prevention of ARI in toddlers at the Kebun Handil Health Center , Jambi City, with a p value of 0.008 and there was a relationship between mother's motivation and the prevention of ARI in toddlers at the Kebun Health Center. Jambi City Handil with a p value of 0.027.

According to states that attitude is a readiness or willingness to behave and is not an implementation of certain motives. In other words, the function of attitude and knowledge is not yet an action (open reaction) or activity, but a predisposition to behavior (action) or closed reaction, achievement and feeling in dealing with objects.(Ekholuenetale et al., 2023)

Good health promotion media is media that is able to provide health information that is in accordance with the target's level of acceptance so that the target is willing and able to change behavior according to the message in the lecture on acute respiratory infections (ARI).

Conclusion

The difference in the average knowledge of mothers before and after the lecture method health counseling was known to have a significant value from the t test for respondents in the lecture group, namely $p = 0.000$ ($p < 0.05$). The mean value of the respondents' knowledge before the lecture intervention was 1.98 while the mean value of the respondents' knowledge after the lecture was 1.18. Differences in the average knowledge of mothers before and after the media leaflet health counseling was carried out $p=0.000$ ($p<0.05$). The mean value of the respondents' knowledge before the leaflet intervention was 5.68 while the mean value of the respondents' knowledge after the leaflet was 12.90.

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