

The Effect of Health Education in Dealing With Epistaxis in Children: Parents' Knowledge and Attitude

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Abstract

Children usually experience epistaxis, and the impact of children who often experience epistaxis would be health complications. A child who has epistaxis whose bleeding is continuous or recurrent will usually be immediately taken to the health unit no matter the severity of the bleeding, which will still cause anxiety for parents. Limited assessment of parents' knowledge and attitude about children's epistaxis, especially after health education. Objective: To determine the effect of health education on handling epistaxis in children based on the level of parents' knowledge and attitude at PAUD Ceria Makassar. Research Methods: The study design was a pre-experiment method with a pre-post-test design approach. The sample used was 40 respondents who were chosen using the accidental sampling technique. Data analysis applied the Wilcoxon signed-rank test. Results: The data analysis of 40 respondents obtained pre-test results as follows: good knowledge 14 (35%), less knowledge 26 (65%), and pre-test positive attitude 17 (42.5%), negative attitude 23 (57.5%), after health education post-test results showed good knowledge 30 (75%) less knowledge 10 (25%), and post positive attitude 28 (70%), negative attitude 12 (30%). The test results using the Wilcoxon test showed that there was an effect of health education on the level of parental knowledge, obtained a p-value of $0.000 < 0.05$, and the attitude of parents obtained a p-value of $0.000 < 0.05$. Conclusion: Health education affects the level of knowledge and attitude of parents in handling epistaxis in children. Developing multi-centre research is needed in the future to improve validity and evaluate the health education materials

Keywords: Health Education, Epistaxis, Children's Health.

Introduction

Epistaxis or nosebleeds is bleeding from the nose, epistaxis itself is an emergency in ENT (Ear, Nose, Throat), and children usually experience epistaxis itself and the impact. Children who often experience epistaxis would cause complications if the bleeding experienced for a long time results in severe bleeding and risk of shock (Sutaryo et al., 2019). A child with continuous or recurrent epistaxis will usually visit the outpatient unit immediately, regardless of the severity of the bleeding, which will cause anxiety for the parents (Ardiani & Irdianty, 2023).

Global reports estimate that 108 epistaxis occur per 100,000 people each year. In the United States, epistaxis was 17 per 100,000 people (6%), and in the UK, 10.2 per 100,000 people, with an average hospital stay of 2.9 days in 3 months. (Husni T.R. & Hadi, 2019). In the United States, hospital data revealed 11,366 patients; the average age of epistaxis patients was 12 years old, and most were male (Baugh & Chang, 2018). The incidence of epistaxis in individuals has been reported to be between 10%-60%, with 50% of all adults having experienced epistaxis during childhood. It is reported that 7-14% of the total population is treated in emergency rooms for epistaxis each year (Alqarni et al., 2019).

Epidemiologically, Indonesia does not have specific data on the prevalence of epistaxis, as multicenter studies have not been conducted. Although epistaxis is rarely the direct cause of death, it can be a serious cause of death, and this condition often causes difficulties for rescue workers. (Krulowitz & Fix, 2019). Based on the impact of epistaxis, it is necessary to provide first aid education or proper handling. However, when there is an epistaxis event, people still often experience panic. They hesitate to perform first aid due to a lack of health science knowledge. It also usually happens in schools due to a lack of knowledge of performing first aid (Rizki, 2018).

Epistaxis or nosebleeds can be prevented by good supervision by parents, especially in children. Parents must know how to handle or provide first aid to children who experience injuries, including epistaxis or nosebleeds

(Wong & Anat, 2019). Limited information is one of the causes of low parental knowledge, and one strategy to improve parental knowledge about handling epistaxis in children is through health education (Siregar, 2018). Health education is a planned effort to influence other people, whether individuals, groups, or communities, so that they do what is expected by the health education actors (Waldman, 2021). Health education will have a good effect if it uses suitable methods and media. Health education is critical to improving knowledge and attitude in treating children who experience epistaxis (nosebleeds) to minimize further impact. (Ardiani & Irdianty, 2023).

Health education significantly influences a person's knowledge because after receiving health education, someone will get new knowledge, which will affect a person's knowledge and attitude (Yulyana et al., 2020). This health problem is evidenced by research (Regita Novrianti, 2022). The results compared pretest and post-test values to show a significant effect between providing health education for handling epistaxis. It was strengthened by research conducted by Nurul Devi Ardiani and Mellia Silvy Irdianty (2023) that showed an increase in maternal knowledge and understanding of handling epistaxis in children after providing education about it. However. Limited assessment of parents' knowledge and attitude about children's epistaxis, especially after health education. This study aims to determine the effect of health education on handling epistaxis in children based on the level of parents' knowledge and attitude at PAUD Ceria Makassar.

Methods

This quantitative research applied a pre experiment with a pretest and post-test design. The population in this study was parents of Early Childhood Education (PAUD) from PAUD Ceria Makassar. The number of respondents was 40 parents that chosen using the Accidental sampling technique. The researcher did health education about dealing with children Epistaxis at home. This study was voluntary and conducted with respect, autonomy and justice. The process of health

education located at the school on February 22, 2024, researchers explained the aim of study to respondent, provided the pre-test, then a research team did health education, discussion, and finally post-test. The data analysis steps included coding, editing, then analysis the respondent characteristic using frequency of distribution. The characteristic of respondents was age, gender, Next,

analysing Frequency distribution respondents' knowledge and attitude based on pre and post health education, and categorizing into good and less knowledge, For attitude the category was include positive and negative attitude. Finally, statistical tests for the impact of health education used the Wilcoxon Test with the p value is 0.000 ($p < 0.05$).

Results

1. Characteristics of Respondents

Table 1 Frequency Distribution of Respondents' Characteristics (n=40)

Age (Year)	(n)	%
22 – 30	8	20.0
31 – 40	24	60.0
41 – 50	8	20.0
Gender		
Female	40	100.0
Education		
SMP	2	5.0
SMA/SMK	13	32.5
Sarjana	25	62.5
Jobs		
Teacher	10	25.0
IRT	24	60.0
PNS	6	15.0
Total	40	100.0

Table showed that the majority of respondents age were dominated by those aged 31-40 years as many as 24 people (60%), and all of respondents based on gender were women 40 (100%), the majority education level is Bachelor's degree as many as 25 (62.5%), and based on the majority of jobs were housewives as many as 24 (60%).

Table 2 Frequency distribution based on knowledge before and after health education (n=40)

Knowledge	Pre Test		Post Test	
	F	%	f	%
Good	14	35.0	30	75.0
Less	26	65.0	10	25.0
Total	40	100	40	100

Table 2 revealed that parents' knowledge before being given health education about epistaxis in children was good, with as many as 14 respondents (35%), and the level of knowledge was less than 26 respondents (65%). Furthermore, after being given health education about handling epistaxis in children, the level of knowledge was as many as 30 respondents (75%), and the knowledge level was less than 10 respondents (25%).

Table 3 Frequency distribution of parents' attitude before and after health education (n=40)

Attitude	Pre Test		Post Test	
	F	%	f	%
Positive	17	42.5	28	70.0
Negative	23	57.5	12	30.0
Total	40	100	40	100

Table 3 shows the attitude of parents before being given health education about epistaxis in children: positive attitudes from 17 respondents (42.5%) and negative attitudes from 23 respondents (57.5%). Furthermore, after health education, a positive attitude was 28 respondents (70%), and a negative attitude was 12 respondents (30%).

Table 4 The effect of health education on the handling of epistaxis in children based on the level of knowledge and attitude

Knowledge	Mean	SD	P value
Pre test	5.75	1.971	0.000
Post test	8.73	2.342	
Attitude	Mean	SD	P value
Pre test	30.60	3.410	0.000
Post test	34.9	4.172	

Based on table 4 shows that based on the results of statistical tests conducted by researchers using the Wilcoxon Test with a meaning value of $\alpha = 0.05$, the result found the p-value is 0.000 ($p < 0.05$), H_0 was rejected, and H_a was accepted, which means that there is an effect of health education on handling epistaxis in children on the level of knowledge of parents at PAUD Ceria Makassar. For the attitude variable, the p-value was 0.000 ($p < 0.05$), H_0 was rejected, and H_a was accepted, which means there is an effect of health education on handling epistaxis in children on the attitude of parents at PAUD Ceria Makassar.

Discussion

The Knowledge level before and after health education in handling children with epistaxis Based on the results of the research that has been done, parents' knowledge about handling epistaxis in children before health education in PAUD Ceria Makassar. The results showed that the level of good knowledge amounted to 14 respondents (35%), and the level of knowledge was less than 26 (65%). Moreover, the results showed that parents' average level of knowledge about handling epistaxis in children was still lacking before being given health education. This result is due to the lack of information, so parents do not understand epistaxis and how to handle it.

Furthermore, based on the study results after being given health education about handling epistaxis in children at PAUD Ceria Makassar. The level of good knowledge amounted to 30 respondents (75%), and the level of poor knowledge amounted to

10 (25%). The results of this study can be concluded that before and after being given health education, parents' knowledge level has increased. The study results for the knowledge variable, the statistical tests were conducted by researchers using the Wilcoxon Test, obtained a p-value of 0.000 ($p < 0.05$), so H_0 is rejected. H_a is accepted, which means health education affects handling epistaxis in children at the level of parental knowledge at PAUD Ceria Makassar. Providing health education is one of the actions that can improve the knowledge and attitude of individuals, groups or communities. Health education is a set of experiences that support habits, attitudes, and knowledge related to individual health and society (Maulana, 2012). It is also supported by the theory of Notoatmodjo (2012) that health education can change a person's knowledge and the community in taking health-related actions. Education, in general, is any planned effort to influence others, whether individuals, groups

co, communities, educators or educational actors. In line with research conducted by Nurul (2023), The results showed an increase in maternal knowledge and understanding of handling epistaxis in children after counselling on handling epistaxis from 60% to 80%. Similarly, the results of research by Rizkina Muliani (2021) show the results of research that the level of teacher knowledge about epistaxis is the category The level of teacher knowledge about epistaxis is the less category as much as 56.9%, 31.0% of the sufficient category and 12.0% of the good category After giving health counselling about epistaxis.

This study's results align with those conducted by (Regita Novrianti, 2022). The results compared pretest and post-test values to show a significant effect between providing health education for handling epistaxis. As strengthened by research conducted by Meidiana Lie and Soegianto Ali (2019), the results showed an increase in the number of parents who had good knowledge from 5.3% before and to 96.1% after health education counselling. The paired T-test results showed a significant increase ($p < 0.001$). Although it can improve parents' knowledge, as seen from the pre-post knowledge data, there are still some parents who have not improved their knowledge, as many as 10 people, even though they have been given health education, because based on the age of the respondents there are five people aged 41-50 years who experience poor knowledge, and five more people are based on their education, namely their last education is junior high school and high school. In addition, most respondents answered incorrectly about the causes of epistaxis, sources of epistaxis bleeding, and treatment. However, there is a difference between before and after the provision of health education about epistaxis on the level of knowledge of parents, who did not know and now know. Based on the researcher's analysis results, providing health education about epistaxis in children at PAUD Ceria Makassar can increase parents' knowledge of how to handle epistaxis in children. Then, parents can use it as an initial action to find out how to handle epistaxis correctly if the child experiences epistaxis at any time.

The attitude before and After Health

Education on epistaxis handling in children

The results showed that parents' attitudes before being given health education about epistaxis in children were positive (17 respondents, 42.5%), and negative (23 respondents, 57.5%). The results of this study indicate that the average attitude of parents before being given health education about handling epistaxis in children at PAUD Ceria Makassar is still lacking. This result is due to the lack of health information on epistaxis and how to handle it properly.

Furthermore, after being given health education about handling epistaxis in children, there were 28 respondents (70%) with positive attitudes, and there were 12 respondents (30%). The results showed that the attitude of parents after being given health education about handling epistaxis in children, the attitude of parents has increased. The study results for the attitude variable, the results of statistical tests conducted by researchers using the Wilcoxon Test obtained a p-value of 0.000 ($p < 0.05$), so H_0 is rejected. H_a is accepted, which means that health education affects parents' attitudes at PAUD Ceria Makassar on handling epistaxis in children.

Attitude is a reaction or response still closed in a person to a stimulus or object (Notoatmodjo, 2007). A person's attitude is usually influenced by personal experience and the influence of people who are considered important. What we have experienced will affect the appreciation of social stimuli. The absence of experience will tend to form a negative attitude towards the attitude object (Azwar, 2012). Attitude is an important aspect of studying human social life. Attitude can be seen as a state within a person that can move them to act or act with certain feelings in response to various objects or situations in their social environment. Attitude can provide readiness and respond positively or negatively to the object or situation. (Octavianti, 2017). This study's results align with those conducted by Al-Sheri, A.M.S, et al. (2021). The results show that the average attitude about epistaxis counselling for pretest counselling is 28.9, while the post-test is 32.2. Based on the results of this study, it can be seen that the mean attitude value after post-test counselling is greater than the

pretest average difference of -3.3. Similarly, research conducted by Alam & Jawhari (2022) showed a significant effect, namely $p < 0.001$ before and after counselling first aid for epistaxis in children, on the attitude of the community in the answer area.

These results are also in line with research conducted by Ananda Listiarini (2017) that the provision of health education can improve the attitude of parents in handling children with epistaxis, as seen from the results of the study after giving health education a positive attitude of 54.2%. This result means there is a difference between before and after giving health information about epistaxis. Then, based on changes in the attitude of parents at PAUD Ceria Makassar, seen from the results of the post attitude parents, it turns out that there are still some parents who have not experienced changes in attitude, namely around 12 people; these are still some parents who fill out questionnaires at the time of research not really in answering, that is, there are also those who only answer or not in actual circumstances. However, there was a change in attitude among parents at PAUD ceria Makassar, with a positive attitude of only 17 respondents (42%) turning into a positive attitude of 28 respondents (75%). Based on the results of the researcher's analysis, a positive attitude is essential for parents. Therefore, it indicates that changes in parents' Attitudes towards knowing how to treat epistaxis in children are needed. It is suggested that routine and regular health education at PAUD Ceria Makassar, as parents' attitudes have changed after being given health education about epistaxis in children. Other health education materials are needed to improve parents' knowledge and attitude of children's health.

Conclusions

The results showed that health education can improve parents' knowledge and attitude. Of the 40 respondents, there was an increase in good knowledge from 14 to 30 respondents after providing education. In addition, parents' positive attitude also increased from 17 to 28 respondents. This study result showed that health education has a significant positive effect on improving parents' knowledge

and attitude. The health professional needs to develop a regular schedule for health education with various health topics; further studies with multi-centre approaches are required to improve validity and evaluate the health education materials.

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