

The Influence of Health Education on Cleaning Atopic Dermatitis Wounds With Normal Saline Solution Against Students' Knowledge At The St. Fransiskus Assisi Boys' Dormitory, Kabanjahe

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Abstract.

Atopic dermatitis, also known as eczema, is a chronic inflammatory condition of the skin that often results in red, itchy, and inflamed patches on the skin. These patches can become open sores or sores that require proper care and treatment. Cleaning to speed healing and prevent infection. This type of research is Quasi-experimental research using a Pre-Experiment Design with a One group Pre test – Post test design. The results showed that of the 60 students who had a good level of knowledge at the pre-test, there were 7 people (11.7%), the level of knowledge was sufficient for the students at the pre-test, there were 24 people (40%) and the level of knowledge was poor for the students. during the pre-test there were 29 people (48.3%). The research results showed that of the 60 students who had a good level of knowledge at the post-test, 12 people (20%), had a sufficient level of knowledge at the post-test, 48 people (80%). The statistical test results showed that p-value = 0.000, p-value <0.05, meaning that there was a significant increase in knowledge scores between before and after providing education.

Keywords: Atopic dermatitis, knowledge, education and normal fluids Saline.

I. INTRODUCTION

Atopic dermatitis, also known as eczema, is a chronic inflammatory skin condition that often results in red, itchy, and inflamed patches of skin. (Aziz et al., 2021) These patches can become open sores or wounds that require proper care and cleaning to promote healing and prevent infection. One recommended method for cleaning atopic dermatitis wounds is using normal saline solution, also known as salt water. Normal saline solution, also known as salt water, can be used to clean and rinse atopic dermatitis wounds. Using normal saline solution helps clean wound, removes dirt or bacteria, and creates a supportive healing environment. Additionally, normal saline solution can help reduce inflammation and relieve itching or discomfort associated with atopic dermatitis wounds. (Pinto et al., 2020) Using normal saline solution gently cleanses the wound without causing further irritation. Risk factors for atopic dermatitis include history family Allergies, infections, and environmental factors such as air pollution and climate change. Symptoms of atopic dermatitis include dry skin, itching, redness, and rashes. These symptoms can vary from person to person. Treatment for atopic dermatitis aims to control symptoms and improve the patient's quality of life. Treatment may include moisturizers, steroid creams, nonsteroidal anti-inflammatory drugs, and phototherapy.

This method is particularly useful when other cleaning agents may be too harsh or irritating to sensitive skin. Using normal saline solution to clean wounds in cases of atopic dermatitis is highly recommended. The use of normal saline solution for wound cleaning in cases of atopic dermatitis is highly recommended due to its ability to cleanse wounds, remove dirt (Pinto et al., 2020) or bacteria, promote healing, and reduce inflammation. And relievediscomfort. Using normal saline solution to clean wounds in cases of atopic dermatitis is highly recommended. Normal saline is an isotonic solution that does not cause allergic reactions and is compatible with the body's natural healing process.

The incidence of atopic dermatitis is associated with several risk factors, one of which is gender. Men experience a twofold higher incidence than women, linked to androgen hormone stimulation, which stimulates sebaceous glands to produce more sebum. This increased sebum can induce the proliferation of Malassezia and trigger atopic dermatitis.

II. RESEARCH METHODS

This type of research is quantitative research using a Pre-Experiment Design with a One-group

Pre-test – Post-test design. This type of design only uses one group of subjects, measurements are taken before and after treatment. This study began with a pre-test before education was carried out, then the researcher conducted education and then the researcher gave a post-test. This study aims to determine the effect of providing education with posters and visual media on increasing knowledge about Atopic Dermatitis. The design in this study is an experiment with a One-group pre-test and post-test design.

III. RESEARCH RESULTS AND DISCUSSION

1. The demographics of respondents in this study describe the research variables including age and education at the St. Francis of Assisi Dormitory.

Table 1. Characteristics of respondents at the St. Francis of Assisi Dormitory, Kabanjahe in 2024

Age	F	%
12-14	30	50
15-17	30	50
Total	60	100
Class		
VII	15	25
VIII	15	25
X	15	25
XI	15	25
Total	60	100

Based on the table above, it can be seen that the respondents aged 12-14 years were 30 respondents (50%), aged 15-17 years were 30 respondents (50.0%). Based on the research results, it is known that class VII had 15 respondents (25%), class VIII had 15 respondents (25%), class X had 15 respondents (25%) and class XI had 15 respondents (25%).

2. Distribution of Respondents' Knowledge During the Pre-Test

Table 2 Categories of Respondents' Knowledge Levels during the pre-test

Level of Knowledge	Pre-Test	
	n	%
Good	7	11.7
Enough	24	40.0
Not enough	29	48.3
Total	60	100

Based on the table above, it shows that of the 60 students who had a good level of knowledge during the pre-test, there were 7 students (11.7%), 24 students (40%) had a sufficient level of knowledge during the pre-test, and 29 students (48.3%) had a poor level of knowledge during the pre-test.

3. Distribution of Respondents' Knowledge at the Post-Test

Table 3 Categories of Respondents' Knowledge Levels

Level of Knowledge	Post Test	
	n	%
Good	12	20
Enough	48	80
Not enough	0	0
Total	60	100

The table above shows that of the 60 students, 12 (20%) had a good level of knowledge during the post-test, while 48 (80%) had a fair level of knowledge during the post-test. This is because the

education was delivered using engaging media, namely leaflets. This media has been proven to improve student knowledge.

4. Analysis Results on the Influence of Respondents' Knowledge

Table 4 Results of Analysis on the Influence of Respondents' Knowledge

Knowledge Category	<i>Paired Samples T-Test</i>		
	n	Mean	<i>p-value</i> Sig.(2-tailed)
Before Intervention (Pre Test) After Intervention (Post Test)	60	733	,000

Based on the table above, it shows that the statistical test results obtained $p\text{-value} = 0.000$ using a 95% confidence level, so H_a is accepted. The $p\text{-value} < 0.05$ means there is a significant increase in knowledge scores between before and after education. Thus, it can be concluded that there is an influence of health education on cleaning atopic dermatitis wounds with normal saline on the knowledge of students at the St. Francis Kabanjahe boys' dormitory in 2024. A significant increase in knowledge.

Discussion

Level of knowledge before being given health education about cleaning atopic dermatitis wounds with normal saline solution at the St. Fransiskus Kabanjahe Boys' Dormitory.

The results of the study showed that out of 60 students who had a good level of knowledge during the pre-test, there were 7 people (11.7%), the level of knowledge was sufficient in the pre-test was 24 people (40%) and the level of knowledge was poor in the pre-test was 29 people (48.3%). This study is in line with Irine Yunila (2022) who showed that most respondents before education had a knowledge score of 31.6%, after education with a good knowledge score increased to 86.8%. This study is also in line with Sularsito, SA (2020) that health promotion is known to have an effect on increasing knowledge about cleaning atopic dermatitis wounds in students of the St. Francis Asisi Saribudolok boarding school. From the results of the study during the pre-test, it can be seen that students of the St. Francis Kabanjahe male boarding school lack knowledge about cleaning dermatitis wounds with normal saline. Therefore, the researcher conducted research on students of the St. Francis Kabanjahe boarding school by providing education to the boarding school students. By providing education to students, it is hoped that students can apply it to their daily lives, for themselves and their families.

Level of knowledge after being given health education about cleaning atopic dermatitis wounds with normal saline solution at the St. Fransiskus Kabanjahe Boys' Dormitory.

Research Results Based on the table above, it shows that out of 60 students who had a good level of knowledge at the time of the post-test, there were 12 people (20%), the level of knowledge was sufficient at the time of the post-test was 48 people (80%). Knowledge in this study is a description of the information known to the sample before and after being given education using leaflets obtained through pre-test and post-test knowledge questionnaires with closed questions and categorized into less, enough, and good. This is in accordance with the research conducted by Baroroh et al., (2022) based on the results of the pre- and post-test on the material of cleaning atopic dermatitis wounds that the knowledge of adolescents before education was mostly less knowledge about cleaning atopic dermatitis wounds, namely 50% and after education, most had good knowledge, namely 80%. The results of the study conducted are in line with the research of Nurdin et al., (2019) where health promotion was known to have an effect on increasing knowledge about cleaning atopic dermatitis wounds in students at the Mawaridussalam Islamic Boarding School. In this study, a significance value of 0.000 was obtained ($p\text{-value} < 0.05$) and it can be interpreted that there is an increase in adolescent knowledge about cleaning atopic dermatitis wounds as assessed from the results of the pre-test and post-test in students at the Mawaridussalam Islamic Boarding School.

The Effect of Health Education on Cleaning Atopic Dermatitis Wounds with Normal Saline Solution on Students' Knowledge at the St. Franciscus Kabanjahe Boys' Dormitory in 2024

Based on the results of the study, it shows that the statistical test results obtained p -value = 0.000 using a 95% confidence level, so H_a is accepted. The p -value < 0.05 means there is a significant increase in knowledge scores between before and after education. Thus, it can be concluded that there is an influence of health education on cleaning atopic dermatitis wounds with normal saline on the knowledge of students in the St. Fransiskus Kabanjahe boys' dormitory in 2024. This significant increase in knowledge is because education is provided with attractive media, namely leaflets. This media is proven to increase student knowledge. The results of the study are in line with the research of Nurdin et al., (2019) where health promotion is known to have an effect on increasing knowledge about cleaning atopic dermatitis wounds in students at the Mawaridussalam Islamic Boarding School. In this study, a significance value of 0.000 (p -value < 0.05) was obtained and it can be interpreted that there is an increase in adolescent knowledge about cleaning atopic dermatitis wounds as assessed from the results of the pre-test and post-test in students at the Mawaridussalam Islamic Boarding School. Knowledge is one factor that can influence behavior; behavior derived from knowledge generally lasts longer. According to Notoatmodjo (2010), one strategy for behavioral change is providing information to increase knowledge, fostering awareness, and ultimately leading people to behave in accordance with that knowledge. One way to provide information is through education in schools. Education is a method and effort to increase knowledge about cleaning wounds from atopic dermatitis. Providing information in the form of education is inseparable from the methods and media used. The method used is leaflets.

It is hoped that adolescents' knowledge and understanding of atopic dermatitis wound cleansing can be applied in their daily lives, allowing them to benefit at least themselves. Knowledge of atopic dermatitis wound cleansing plays a crucial role in shaping a person's habits, as it influences how they care for and clean atopic dermatitis wounds.

A person's level of knowledge about cleaning atopic dermatitis wounds can influence attitudes and behaviors in life, for example, being able to care for and clean atopic dermatitis wounds for oneself and one's family (Indraswari, 2019). Education delivered through media will make it easier and clearer for the audience to receive and understand the material presented, and it can also help convey the material.

IV. CONCLUSION

- a. The results of the study showed that of the 60 students who had a good level of knowledge during the pre-test, there were 7 students (11.7%), 24 students (40%) had a sufficient level of knowledge during the pre-test, and 29 students (48.3%) had a poor level of knowledge during the pre-test.
- b. The research results show that of the 60 students who had a good level of knowledge at the time of the post-test, there were 12 students (20%), while the level of knowledge at the time of the post-test was sufficient for 48 students (80%).
- c. The results of the statistical test obtained a p -value = 0.000, a p -value < 0.05 , meaning there was a significant increase in knowledge scores between before and after the provision of education.

SUGGESTION

- a. This research can be developed by adding other variables such as behavioral variables and attitude variables.
- b. In further research, a quasi-experimental research design with two groups of pretest and posttest can be used to see the influence of education with the help of more effective media.
- c. Further research with educational interventions on cleaning wounds of atopic dermatitis using leaflets to increase compliance control during the study is needed, as well as implementing follow-up or further monitoring to see changes in respondents in the long term.

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