



## **Application Of Audio Visuals On Knowledge And Attitude Of Adolescent Men Regarding Personal Hygiene To Prevent Pityriasis Versicolor**

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### **ABSTRACT**

*Pityriasis versicolor or tinea versicolor is skin disease caused by a fungus that causes itching. This disease usually arises from dirty environments, dirty bathrooms and poor environmental sanitation. Someone who doesn't care about their personal hygiene tends to be more susceptible to skin disease. Personal hygiene is influenced by knowledge, culture, attitudes, socio-economic status, personal choices and socioeconomics. Using the same towel at the As-Suruur Islamic Middle School boarding house, after playing sports, not changing clothes is habit of teenagers due to lack of knowledge. Audio visuals is one of the efforts to increase knowledge and attitudes so that personal hygiene can be implemented well. The aim of this research is to see the effect of implementing Audio Visual on the knowledge and attitudes of young men regarding personal hygiene to prevent Pityriasis Versicolor at As-Suruur Islamic Middle School. This research used a quantitative design using 62 samples and was designed using a Quasi-Experimental design with a One Group Pretest-Posttest design. The results of the study showed that audio visual had significant effect on increasing knowledge, attitudes and application of personal hygiene to prevent tinea versicolor in As-Suruur Islamic Middle School students with p value of 0.000 (p value <0.05).*

**Keywords:** Audio visual , Male adolescent , Pityriasis versicolor

## INTRODUCTION

*Pityriasis versicolor* infects around 20-25% of the world's population (Chanyachailert et al., 2023). The World Health Organization (WHO) states that the incidence of *Pityriasis versicolor* in developing countries is around 16% at the age of 13 years, then at the age of 14-15 years around 8-18% and at the age of 5-9 years around 1% (Kesha et al., 2024). Caused by *Pityriasis versicolor* infection will reach its peak to coincide with age due to the body producing high sebum and lots of physical activity (Nazaria, 2017). The prevalence of *Pityriasis versicolor* (*tinea versicolor*) worldwide in hot and humid areas is as much as 50% and in areas with cold climates as much as 1.1% (Karray & McKinney, 2018). The prevalence of *Pityriasis versicolor* in Indonesia is unknown, because many sufferers do not seek treatment to overcome their complaints. In Jakarta, the incidence of *Pityriasis versicolor* ranks second after dermatitis, and in other areas, such as Bandung, Surabaya, Semarang and Manado, it ranks second to fourth (Tambunan et al., 2022).

The incidence *Pityriasis versicolor* in male adolescents is higher than female adolescents. During the summer, *Pityriasis versicolor* attacks about 35% due to increased sweating so that a person is more susceptible to *pityriasis versicolor*

infection. Skin diseases are very easy to infect if you don't maintain cleanliness, especially personal hygiene (Wardana et al., 2020). In general, skin diseases in Indonesia are caused by *Pityriasis versicolor* (Chandra et al., 2019). This skin disease is a disease that spreads quickly in the tropics, with a prevalence rate of 59% (Apriliani et al., 2021). *Pityriasis versicolor*, also known as *tinea versicolor*, or commonly called *tinea versicolor*, is an infectious disease of the skin caused by a fungus. The cause of the fungus in this disease comes from the genus *Malassezia* (Radila, 2022). *Pityriasis versicolor* does not cause symptoms, but some patients with *Pityriasis versicolor* feel itching (Pranoto et al., 2023).

The cause of someone easily getting *tinea versicolor* is because they live in a damp area, dirty environment, dirty bathrooms and even poor environmental sanitation (Theresiana et al., 2023). Therefore, poor hygiene is a factor in the occurrence of *tinea versicolor* (Radila, 2022). In Indonesia there are many cases of disease caused by a lack of someone to maintain personal hygiene. Children aged 6 to 12 years (school age) are in the spotlight in implementing personal hygiene measures because at that age they are very vulnerable to disease. (Amelia et al., 2022). A sample of teenage boys at As - Suruur Islamic Middle School was used to apply

personal hygiene while in the school environment by using 5 audio-visual media. The use of audio-visual media is a method that is considered to be able to be used to assist the implementation of health education. Audio visual media makes a major contribution to the information and persuasion aspects of increasing knowledge and changing behavior. This is because audio-visual media provides a stimulus to hearing and vision as much as approximately 75-87% in channeling knowledge to the brain (Kesha et al., 2024). Knowledge is one of the trigger factors that plays a role influence a person's attitude in making decisions to behave healthily (Zakaria & Kadir, 2021). The use of audio-visual media related to personal hygiene Pityriasis versicolor is able to clarify the abstract picture of how to improve clean and healthy living behavior (PHBS) includes bathroom cleanliness, body hygiene, clothing and towels cleanliness, and paying attention to clean water by carrying out health promotion for adolescent boys so that they know more about Pityriasis versicolor (tinea versicolor).

## **METHOD**

This research was conducted at As-Suruur Islamic Middle School using a Quasi-Experimental quantitative design with the design used being One Group Pretest-

Posttest with audio-visual broadcasts. With a sample of 62 male teenage respondents aged 12-15 years. The pretest was carried out simultaneously after the respondent agreed to the informed consent and continued with an audio-visual presentation about the application of personal hygiene to pityriasis versicolor. Respondents were then asked to do a post test again using the same questionnaire as the pretest to determine their understanding of the influence of attitudes and knowledge after showing the audio-visual. The independent variable is the audio-visual effect, and the dependent variable is the knowledge and attitude of Pityriasis Versicolor and the application of Personal Hygiene. In this study the instruments used were questionnaires and the data from the questionnaires were tested using IBM SPSS Statistics Vers 26.

## **RESULTS AND DISCUSSIONS**

### **Result**

#### **The characteristics of the sample**

Data describing the characteristics of the sample in this study includes data on the age of the respondents. The respondents referred to in this study were male adolescents so that based on calculations and sample criteria, a total sample of 62 respondents was obtained. Data on the results of the frequency distribution of the

characteristics of respondents based on age are presented in the following table:

**Table 1. Frequency Distribution of Respondents by Age**

Age	Frequency (n)	Percentage (%)
12 years old	8	13
13 years old	18	29
14 years	20	32
15 years	15	24
17 years	1	2
<b>Total</b>	<b>62</b>	<b>100</b>

Source: (master data research Dhea Amalia; 2023)

Based on the data in the table above, it shows that the majority of respondents in this study were aged between 14 years, namely as many as 20 respondents (32%), followed by 13-year-old respondents as many as 18 respondents or (29%) and the lowest was 1 respondent who was in the 17-year age range (2%). The high age range at the age of 14 years illustrates that the majority of male adolescents are in the early adolescent category who have rapid growth (growth spurt).

## **The Effect of Giving Audio Visual Methods Before and After on Personal Hygiene Attitudes**

### **1. Univariate analysis**

Data from univariate analysis in this study included data on the frequency distribution of knowledge levels, attitudes of Pityriasis versicolor (tinea versicolor) and the application of personal hygiene before and

after being given audio visuals and posters to teenage boys at As-Suruur Islamic Middle School presented as follows:

- Level of knowledge before-after being given audio-visual to teenage boys at As-Suruur Islamic Middle School

Table 2 below shows that the distribution of knowledge of respondents in the study before being given audio visuals the majority had a good level of knowledge about Pityriasis versicolor (tinea versicolor) which was already good as many as 48 respondents or 77% and the remaining 14 respondents or 23% had sufficient knowledge regarding Pityriasis versicolor (tinea versicolor). After the audio-visual intervention was carried out, it was found that there was an increase in respondents' knowledge about Pityriasis versicolor (tinea versicolor) by 100% with a good level of knowledge.

**Table 2 Distribution of Knowledge Frequency Before-After Being Given Audio Visual to Young Boys at As-Suruur Islamic Middle School**

Knowledge category	Frequency (n)	Percentage (%)
<b>Before</b>		
Good	48	77
Enough	14	23
Not enough	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>
<b>After</b>		
Good	62	100.0
Enough	0	0
Not enough	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

Source: (master research data of Dhea Amalia; 2023)

- b. The level of attitude before-after being given audio-visual to teenage boys at As-Suruur Islamic Middle School

Based on the data table 3 above, it shows that the attitudes of the respondents before being given audio visual related to Pityriasis versicolor (tinea versicolor) were mostly included in the sufficient category of 48 respondents or 77%, followed by the attitudes of respondents who were in the good category 11 respondents or 18% and

the remaining were 3 respondents or 5% had an attitude that was less related to Pityriasis versicolor (tinea versicolor). After the audio-visual intervention was carried out, it shows that of the 62 respondents in this study, the majority had a sufficient attitude towards Pityriasis versicolor (tinea versicolor), namely as many as 43 respondents or 69% and as many as 19 respondents or 31% had a good attitude after being given audio visual.

**Table 3. Frequency Distribution of Attitudes Before-After Being Given Audio Visual to Young Boys at As-Suruur Islamic Middle School**

Attitude Category	Frequency (n)	Percentage (%)
<b>Before</b>		
Good	11	18
Enough	48	77
Not enough	3	5
<b>Total</b>	<b>62</b>	<b>100.0</b>
<b>After</b>		
Good	19	31
Enough	43	69
Not enough	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

Source: (master research data of Dhea Amalia; 2023)

- c. The level of application of personal hygiene before and after being given

audio visual to young boys at As-Suruur Islamic Middle School

Based on the data from the analysis below, it shows that the majority of respondents in this study applied personal hygiene with a good level of personal hygiene, 15

respondents or 24% and the remaining 47 respondents or 76% had adequate personal hygiene implementation after being given audio visual.

**Table 4. Frequency Distribution of Personal Hygiene Application Before and After Given Audio Visual**

Application Category <i>Personal Hygiene</i>	Frequency (n)	Percentage(%)	OR (CI 95%)	Upper Bond	Lower Bond
Before			0.159	0.044	0.583
Good	0	0			
Enough	62	100.0			
Total	62	100.0			
After					
Good	15	24			
Enough	47	76			
Total	62	100.0			

Source: (master research data of Dhea Amalia; 2023)

## 2. Bivariate Analysis

Data from bivariate test analysis in this study included variable normality tests and paired t tests on Knowledge and Attitudes of Pityriasis versicolor (tinea versicolor) in Adolescent Boys with the Application of Personal Hygiene at As-Suruur Islamic Middle School. The Kolmogorov Smirnov normality test is used with a sample size of more than 30.

### a. Normality test

The normality test is used to determine whether the data is normally distributed or not. The condition of normally distributed data is a condition for finding the t-test used. The results of the analysis of the data normality test on the level of knowledge, attitudes of Pityriasis versicolor (tinea versicolor) and the application of personal hygiene before and after being given audio visuals and posters with the Kolmogorov Smirnov test are presented in the following table:

**Table 5. Data Normality Test Results in Audio Visual**

Variable	Measurement	P-value	Frequency
Knowledge	<i>Pretest</i>	0.000	62
	<i>Posttest</i>	0.000	62
Attitude	<i>Pretest</i>	0.000	62
	<i>Posttest</i>	0.000	62
Application <i>Personal Hygiene</i>	<i>Pretest</i>	0.000	62
	<i>Posttest</i>	0.000	62

Source: (master research data of Dhea Amalia; 2023)

Table 5 above shows the results of the data normality test analysis on the level of knowledge, attitudes, and application of personal hygiene before and after being given audio visual. Based on the results of the Kolmogorov Smirnov normality analysis with a sample of 62 respondents at a significance level of 95%, the p value of the knowledge variable before and after being given audio-visual was obtained was 0.000 or less than 0.05 so that the data on the knowledge variable was not normally distributed. Therefore, data on all variables were tested using a non-parametric analysis of the Wilcoxon signed rank test.

b. Wilcoxon Signed Rank Test and McNemar Statistical Test

1) The effect of audio-visual on the level of knowledge of young boys at As-Suruur Islamic Middle School on Pityriasis versicolor (tinea versicolor).

Differences in knowledge before and after audio-visual and posters were measured through the Wilcoxon signed rank test statistical test. The results of the Wilcoxon signed rank test statistical analysis are presented in the following table:

**Table 6. The Effect of Audio Visual on the Knowledge Level of Young Boys at As-Suruur Islamic Middle School**

Category	Knowledge		Sig. (2-tailed)
	<i>Pre-test</i>	<i>Post test</i>	
Median	14	16	0.000
Minimum	12	14	
Maximum	17	18	

Wilcoxon signed ranks test (p-value 0.000<0.05)

If you look at the table data related to the results of the analysis of knowledge before and after audio visual, the p value or significance of the Wilcoxon analysis is 0.000 or less than 0.05 respectively so that there is a significant influence between the pretest and posttest data after being given audio-visual related to tinea versicolor.

2) The effect of audio visual on the attitudes of young boys at As-Suruur Islamic Middle School on Pityriasis versicolor (tinea versicolor)

The results of the Wilcoxon test analysis on the attitude variable of young boys on Pityriasis versicolor (tinea versicolor) before and after being given audio-visual are presented in the following table:

**Table 9. The Effect of Audio Visual on the Attitudes of Young Boys at As-Suruur Islamic Middle School**

Category	Attitude		Sig. (2-tailed)
	<i>Pre-test</i>	<i>Post test</i>	
Median	28	30	0.000
Minimum	13	13	
Maximum	33	33	

Wilcoxon signed ranks test (p-value 0.000<0.05)

Based on the results of the analysis in the table above, it shows that the p value of the respondent's attitude variable after being given audio visual related to Pityriasis versicolor (tinea versicolor) is 0.000 or less than 0.05 so concluded there is a significant influence between the provision of audio-visual to the attitude of adolescent boys. The mean value of pretest and posttest data for attitudes before being

given audio-visual was 27.45 and after being given audio-visual was 29.77.

3) The effect of audio-visual on the application of personal hygiene for male adolescents at As-Suruur Islamic Middle School

Data from the analysis of the McNemar Test on the personal hygiene application variables in this study before and after being given audio visuals are presented as follows:

**Table 10. The Effect of Audio Visual on the Application of Personal Hygiene for Adolescent Boys at As-Suruur Islamic Middle School**

Category	Personal Hygiene		Sig. (2-tailed)
	<i>Pre-test</i>	<i>Post test</i>	
Median	27,5	28	0.000
Minimum	23	24	
Maximum	31	31	

McNemar Test (p-value 0.000<0.05)

Based on the results of the McNemar Test analysis above, it shows that the significance value of the variable of applying personal hygiene after being given audio-visual is 0.000 <0.05. In other words, it can be concluded that there is an audio-visual effect on the application of personal hygiene with a mean pretest and posttest data value of 27.56 and 28.21, respectively.

## Discussion

### Level of Knowledge and Attitudes of Young Boys about Pityriasis versicolor (Tinea versicolor)

After being given audio-visual information about Pityriasis versicolor (tinea versicolor), all respondents in this study or 100% were found to have good knowledge about Pityriasis versicolor (tinea versicolor). This illustrates that the provision of education in the form of



audio-visual information about Pityriasis versicolor (tinea versicolor) indirectly increases the awareness and knowledge of male adolescents. The results of this study are in line with (Aprilia et al., 2019), where as many as 43 people (79.6%) of respondents were known to have good knowledge category after being given health education with the audio-visual method. The high level of sufficient knowledge in adolescents after being given audio-visual was also proven by the results of the questionnaire analysis which showed that the average score for the highest level of knowledge of respondents was in the mode of transmission of Pityriasis versicolor (tinea versicolor) through excessive sweating, environmental conditions that can facilitate the growth of the malassezia fungus. furfur and the transmission of Pityriasis versicolor (tinea versicolor) caused by an unfavorable lifestyle.

#### **Attitudes of Adolescent Boys about Pityriasis versicolor (Tinea versicolor)**

Providing audio visual can improve adolescent attitudes about the application of personal hygiene for Pityriasis versicolor (tinea versicolor) from the previous 18% to 31%. The addition of the percentage of respondents' attitudes in the study after being given audio visual was in line with previous research which

concluded that as many as 19 people (63%) had attitudes in the good category before being given health education and as many as 27 people (90%) in the good category increased after being given health education (Suseno et al., 2021). Changes in attitudes for the better in adolescents after being given audio visual were also shown in the results of the questionnaire, where the highest average score was in the attitude of respondents who already understood that how to avoid preventing the transmission of Pityriasis versicolor (tinea versicolor) by improving lifestyle, avoiding wearing clothes that strictly, avoid using bath soap together and avoid excessive activity so as not to produce more sweat.

#### **Effect of Audio Visual on Knowledge Level, Adolescent Boys on Pityriasis versicolor (Tinea versicolor)**

The influence of the audio-visual on the level of knowledge of respondents on personal hygiene of Pityriasis versicolor (tinea versicolor) is in line with the results of the study (Aprilia et al., 2019), based on the results of the Wilcoxon test, a p value = 0.000 was obtained so that there was an effect of audio-visual media health education on increasing knowledge about personal hygiene. This statement was reinforced by subsequent research which also revealed that there was an effect of

health education using video media on the level of knowledge of young women about personal hygiene with a p value <0.05(Suseno et al., 2021). Education provided through audio-visual aids is capable of displaying pictures, writing, moving animations accompanied by sound, helping to provide first concepts or correct impressions, encouraging interest, saving time, making memories of lessons longer and increasing intellectual knowledge. Providing audio visuals with educational videos can contain explanations regarding definitions, symptoms, risk factors, prevention, and appropriate treatment methods for Pityriasis versicolor (tinea versicolor). Counseling using audio-visual media statistically has a significant effect on increasing respondents' knowledge of a disease(Amalia et al., 2019).

#### **The Effect of Audio Visual on the Attitudes of Adolescent Boys in Pityriasis versicolor (Tinea versicolor)**

There is a significant influence between the provision of audio-visual and posters on the attitude of young boys towards Pityriasis versicolor (tinea versicolor). The same result was also expressed by(Suseno et al., 2021), the provision of health education is one of the efforts in disseminating health-related information and aims so that people can behave in

accordance with health norms and values, which in this case is the attitude of respondents about the application of personal hygiene for Pityriasis versicolor (tinea versicolor). This condition illustrates that education in the form of audio visual can improve adolescent attitudes towards Pityriasis versicolor (tinea versicolor). This is also evidenced by the frequency distribution data on audio-visual provision which increased in the good category from 18% to 31%. The provision of visual video information that has a significant effect on respondents' attitudes about personal hygiene for Pityriasis versicolor (tinea versicolor) is also conveyed by the results of previous studies(Perwita, 2018).

#### **The Effect of Audio Visual on the Application of Personal Hygiene for Boys in Pityriasis versicolor (Tinea versicolor)**

Personal cleanliness is very beneficial for children, if they are not taught about personal hygiene from a young age, then in the future they will not be able to live cleanly (Desak & Montolalu, 2016).

There is a significant influence between the provision of audio-visual to the application of personal hygiene for young boys regarding Pityriasis versicolor (tinea versicolor). That is, the provision of audio-visual was able to increase the application of personal hygiene for respondents in this

study. In other words, someone with good personal hygiene can reduce the risk of skin diseases such as Pityriasis versicolor (tinea versicolor). This statement is reinforced by (Radila, 2022), where personal hygiene is one of the factors that play a role in personal health. Individuals who have poor personal hygiene tend to be more susceptible to Pityriasis versicolor (tinea versicolor) than individuals with good personal hygiene (Tumilaar et al., 2019). The high application of personal hygiene is also evidenced by the results of direct observations by researchers in the field, where the highest average scores are found in the behavior of respondents who have bathed with soap, dried clothes under the hot sun, and practiced clean living. A good level of personal hygiene is always paying attention to skin cleanliness, hand and nail hygiene, and clothing and toiletries (Adiyani et al., 2022). Maintenance of skin health will be closely related to surrounding cleanliness, nutrition, and a clean lifestyle (Wahid, 2021).

## **CONCLUSION**

The effect of audio-visual has a significant change effect on increasing knowledge, attitudes and application of personal hygiene for Pityriasis versicolor to students at As-Suruur Islamic Middle School with a good category and have a thorough understanding of the practice of clean and healthy living behavior.

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