

APPLICATION OF AUDIO VISUAL TO KNOWLEDGE AND ATTITUDE ABOUT PERSONAL HYGIENE IN PREVENTING PITYRIASIS VERSICOLOR

Dhea Amalia¹, Farida M Simanjuntak², Dr. Marni Brother Karo³

¹STIKes Medistra Indonesia, Indonesia.

²Affiliation of the second author's original institution, Indonesia.

Email: dheaamaliaa08@gmail.com ¹, [author2](#), [author3](#)

ABSTRACT

Pityriasis versicolor known as tinea versicolor is a disease that occurs due to superficial fungi in the horny layer of the skin which is characterized by macules or hypopigmentation or hyperpigmentation and scaling caused by the fungus *Malassezia furfur* or *Pityrosporum orbiculare*. This infectious disease is chronic, with mild symptoms and usually without symptoms of inflammation. This disease generally occurs in children aged 6 to 12 years (school age) and is in the spotlight in the application of personal hygiene measures because at that age they are very vulnerable to disease. The purpose of this study was to see the effect of the application of Audio Visual on the knowledge and attitudes of Pityriasis versicolor (*Tinea versicolor*) in male adolescents with the application of personal hygiene at As-Suruur Islamic Middle School. This study used a quantitative design using 62 samples and was designed using a quasi-experimental design with the audio-visual One Group Pretest-Posttest design. The research results show that the influence of audio-visual effects has a significant change in 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.

Keywords: Audio visual, *Pityriasis versicolor*, teenage boy

ABSTRACT

Pityriasis versicolor or known as tinea versicolor disease is a disease that occurs due to superficial fungi in the horny layer of the skin which is characterized by macules or hypopigmentation, or hyperpigmentation and scaling caused by the fungus Malassezia furfur or Pityrosporum orbiculare. This infectious disease is chronic, with mild symptoms and usually without symptoms of inflammation. This disease generally occurs in children aged 6 to 12 years (school age) and is in the spotlight in the application of personal hygiene measures because at that age they are very vulnerable to disease. The purpose of this study was to see the effect of the application of Audio Visual on the knowledge and attitudes of Pityriasis versicolor (Tinea versicolor) in male adolescents with the application of personal hygiene at As-Suruur Islamic Middle School. This study used a quantitative design using 62 samples and was designed using a Quasi-Experimental design with the audio-visual One Group Pretest-Posttest design. The results showed that the influence of audio-visual had a significant effect on increasing knowledge, attitudes and application of personal hygiene for Pityriasis versicolor on students at As-Suruur Islamic Middle School with a good category and had a thorough understanding of the practice of clean and healthy living.

Keywords: Audio visual, male adolescent, Pityriasis versicolor

©2021author

Under the license CC BY-SA 4.0

*Name, Affiliate, Address and Corresponding Email

INTRODUCTION

Pityriasis versicolor infects around 20-25% of the world's population. 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%. 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%. 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 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, Karna, & Wiraguna, 2019). This skin disease is a disease that spreads quickly in the tropics, with a prevalence rate of 59%. (Apriliani, Purba, Dewanti, Herawati, & Faizal, 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.

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. 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, Puspita, Rahayu, Astuti, & Almumtahanah, 2022). A sample of teenage boys at As - Suruur Islamic Middle School was used to apply personal hygiene while in the school environment. Improving clean and healthy living behavior (PHBS) includes bathroom cleanliness, body hygiene, clothing and towels cleanliness, and paying attention to clean water, and carrying out health promotion for

adolescent boys by using 5 audio-visual media 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 respondents. 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.

RESULTS AND DISCUSSION

Results

Sample Characteristics

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
Total	62	100

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:

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

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

Category Knowledge	Frequency (n)	Percentage (%)
Good	48	77
Enough	14	23
Not enough	0	0
Total	62	100.0

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

Table 2 above 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).

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

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

Knowledge category	Frequency (n)	Percentage (%)
Good	62	100.0
Enough	0	0
Not enough	0	0
Total	62	100.0

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

Based on table 3, it is known that 62 respondents or 100% of the respondents' knowledge about Pityriasis versicolor (tinea versicolor) after being given audio visuals had a good level of knowledge.

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

Table 4. Frequency Distribution of Attitudes Before Being Given Audio Visual to Adolescent Boys at As-Suruur Islamic Middle School

Attitude Category	Frequency (n)	Percentage (%)
Good	11	18
Enough	48	77
Not enough	3	5
Total	62	100.0

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

If seen from the research data 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).

- d. Attitude level after being given audio-visual to teenage boys at As-Suruur Islamic Middle School

Table 5. Frequency Distribution of Attitudes After Being Given Audio Visual to Young Boys at As-Suruur Islamic Middle School

Attitude Category	Frequency (n)	Percentage (%)
Good	19	31
Enough	43	69
Not enough	0	0
Total	62	100.0

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

Based on the table data above, 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.

- e. The level of application of personal hygiene before and after being given audio visual to young boys at As-Suruur Islamic Middle School

Table 6. Frequency Distribution of Personal Hygiene Application Before and After Given Audio Visual

Application Category	Frequency (n)	Percentage(%)
<i>Personal Hygiene</i>		
Before		
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)

Based on the data from the analysis above, 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.

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 7. 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 7 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 Statistical Test

1) The effect of audio-visual and posters 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 8. The Effect of Audio Visual on the Knowledge Level of Young Boys at As-Suruur Islamic Middle School

Category	Knowledge		Sig. (2-tailed)
	Pre-test	Post test	
Means	14.4	16.19	0.000
Minimum	12	14	
Maximum	17	18	

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

If you look at the table data related to the results of the analysis of knowledge before and after audio visual and posters, it can be seen that 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 and posters 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)
	Pre-test	Post test	
Means	27.4	29.77	0.000

Minimum	13	13
Maximum	33	33

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

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 and posters on the application of personal hygiene for male adolescents at As-Suruur Islamic Middle School

Data from the analysis of the Wilcoxon test on the personal hygiene application variables in this study before and after being given audio visuals and posters 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)
	Pre-test	Post test	
Means	27.56	28.21	0.000
Minimum	23	24	
Maximum	31	31	

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

Based on the results of the Wilcoxon 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, Peni, & Wibowo, 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, Fitri Hamidiyanti, & Ayu Ningsih, 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, Mustikaningsih, & Fitriangga, 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)

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. 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. 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.

BIBLIOGRAPHY

- Amalia, N. H. F., Mustikaningsih, R., & Fitriangga, A. (2019). Efektifitas Penyuluhan dengan Media Audiovisual terhadap Tingkat Pengetahuan Mengenai Tinea Versikolor. *Jurnal Cerebellum*, 5(2), 1322–1331. Retrieved from <https://jurnal.untan.ac.id/index.php/jfk/article/view/32929>
- Amelia, L., Puspita, D., Rahayu, I. D., Astuti, D., & Almumtahanah, A. (2022). Peningkatan Keterampilan Personal Hygiene Dalam Upaya Pencegahan Covid-19 Pada Anak Usia Sekolah Dasar. *GEMAKES: Jurnal Pengabdian Kepada Masyarakat*, 2(2), 69–74. <https://doi.org/10.36082/gemakes.v2i2.473>
- Aprilia, S., Peni, T., & Wibowo, H. T. (2019). Pengaruh Health Education Metode Audio Visual Terhadap Peningkatan Pengetahuan Personal. *Keperawatan STIKes Bina Sehat PPNI Mojokerto*, 3.
- Apriliani, I. M., Purba, N. P., Dewanti, L. P., Herawati, H., & Faizal, I. (2021). Pelatihan Pengumpulan Sampah Laut Kepada Pengunjung Pantai Pangandaran. *Farmers: Journal of Community Services*, 2(1), 56. <https://doi.org/10.24198/FJCS.V2I1.31927>
- Chandra, K., Karna, R. V. N., & Wiraguna, A. A. G. P. (2019). Prevalensi dan Karakteristik Pityriasis Versicolor di RSUP Sanglah Denpasar Periode Januari 2017 - Desember 2017. *Jurnal Medika Udayana*, 8(12), 1–8.
- Nazaria, R. (2017). Hubungan Pengetahuan mengenai Pityriasis Versicolor dan PHBS dan Kejadian Pityriasis Versicolor pada Santri Madrasah Tsanawiyah di Pondok Pesantren. *Cerebellum*, 3(4), 922–931.
- Perwita, L. (2018). *Perbedaan Pengaruh Penyuluhan Kesehatan Personal Hygiene Antara Media Ppt Dengan Leaflet Terhadap Pengetahuan Dan Sikap Siswi Saat Menstruasi Di Mts Wilayah Kota Malang*. Universitas Brawijaya.
- Radila, W. (2022). Hubungan Personal Hygiene Individu Dengan Kejadian Pityriasis Versicolor : Sebuah Tinjauan Pustaka. *Jurnal Medika Hutama*, 03(02), 1758–1763.
- Suseno, M. R., Fitri Hamidiyanti, B. Y., & Ayu Ningsih, W. (2021). Pengaruh Pendidikan Kesehatan Menggunakan Media Video Dan Alat Peraga Terhadap Pengetahuan Dan Sikap Remaja Putri Tentang Personal Hygiene Pada Masa Menstruasi Dalam Layanan Homecare. *Jurnal Kebidanan*, 10(2), 59–69. <https://doi.org/10.35890/jkdh.v10i2.216>
- Tambunan, V. O., Bahar, M., Pramono, A., Fauziah, C., Yusmaini, H., & Zulfa, F. (2022). Potensi Daya Hambat Filtrat Zat Metabolit Actinomyces dari Kebun Raya Bogor terhadap Pertumbuhan Candida albicans dan Malassezia furfur. *Bioscientist : Jurnal*

Ilmiah Biologi, 10(1), 66. <https://doi.org/10.33394/bioscientist.v10i1.4792>

Wahid, C. R. A. (2021). *Hubungan Tingkat Personal Hygiene Terhadap Kejadian Infeksi Pityriasis Versicolor (Tinea versicolor) Pada Santri Di Pondok Pesantren Asy-Syifa Al-Khoeriyah Desa Kaputihan Kecamatan Jatiwaras Kabupaten Tasikmalaya*. Universitas Islam Negeri Maulana Malik Ibrahim.