

EFFECT OF VIDEO-BASED PERSONAL HYGIENE EDUCATION ON VAGINAL DISCHARGE PREVENTION BEHAVIORS AMONG ADOLESCENTS IN TUBAN

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ABSTRACT

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Background: Vaginal discharge is still commonly experienced by adolescent girls and is generally related to improper personal hygiene practices. Limited access to reproductive health information leads to misperceptions and poor preventive behaviors. This study aims to assess the effect of video-based personal hygiene education on preventive behaviors against vaginal discharge among adolescents in Tuban. Method: This study used a pre-experimental quantitative design with a one-group pre-test post-test approach. The study population consisted of 120 adolescents from public junior high schools in Tuban Regency. A sample of 40 respondents was obtained using the Slovin formula. Data were collected using a closed questionnaire that assessed vaginal discharge prevention behavior before and after education. The instrument was tested for validity with an r value above the r table and reliability with Cronbach's Alpha > 0.80 . Data analysis used the Wilcoxon test with $\alpha = 0.05$. Result: The results showed a p -value of 0.000 , where $0.000 < 0.05$. This means that there is an effect of video-based personal hygiene education on vaginal discharge prevention behavior among adolescents in Tuban Regency. Conclusion: Based on the results of the study, it can be concluded that video-based personal hygiene education has an effect on improving vaginal discharge prevention behavior among adolescents in Tuban Regency. It is hoped that adolescents can apply better hygiene behaviors and understand the steps to prevent vaginal discharge on an ongoing basis.

1. INTRODUCTION

Adolescence is a transitional period from childhood to adulthood that generally lasts from ages 12 to 20. At this stage, various developmental changes occur, including physical, psychological, and psychosocial

changes¹. Rapid physical growth includes the development of reproductive organs until they reach functional maturity. Adolescents in this phase are expected to start paying more attention to personal hygiene, especially reproductive health². Adolescent reproductive

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health encompasses the healthy condition of the reproductive system in terms of its function, components, and processes, involving physical, mental, emotional, and spiritual aspects³. The reproductive organs are sensitive and require proper care. Knowledge and good hygiene practices in maintaining the cleanliness of the reproductive organs can help maintain reproductive health⁴.

One of the health problems that often arises in the reproductive system of adolescents is vaginal discharge. This condition is characterized by the discharge of fluid from the vagina and is divided into two types, namely physiological (normal) and pathological (abnormal) vaginal discharge. Physiological vaginal discharge usually occurs before or after menstruation, while pathological vaginal discharge tends to occur more frequently, even daily, and is usually accompanied by certain clinical symptoms⁵. Vaginal discharge complaints are most commonly experienced during adolescence, particularly between the ages of 10 and 20⁶.

Data in Indonesia shows that 90% of women experience vaginal discharge and 60% of teenage girls experience it⁵. According to data from the WHO (2021), the prevalence of vaginal discharge in women in Indonesia reached 75% in 2021, with most experiencing vaginal discharge at least once in their lives. Additionally, 45% of women in Indonesia have experienced vaginal discharge more than once. This figure is not comparable to the incidence of vaginal discharge among women in Europe, which is only around 25%. Based on 2019 statistics, 68% of the 2.9 million adolescents in East Java experience pathological vaginal discharge. According to research conducted by Novi (2019) at SMA Negeri 3 Tuban, most female students (51 or 66.2%) experience vaginal discharge.

Based on preliminary surveys conducted by researchers at three schools, namely SMPN 6, SMPN 4, and SMPN 2 Tuban, through interviews

with 16 adolescents (6 adolescents from SMPN 6, 5 adolescents from SMPN 4, and 5 adolescents from SMPN 2), it was found that the majority, namely 10 adolescents, often experienced vaginal discharge and complained of itching in the genital area due to a lack of personal hygiene practices and limited knowledge about proper treatment. Meanwhile, the other 6 adolescents were aware of vaginal discharge and stated that they had taken preventive measures, but the measures taken were still not appropriate and had the potential to worsen the condition. The researcher's observations also showed that some adolescents did not seem to understand the correct preventive measures when dealing with vaginal discharge.

Research by Wada et al (2023) on adolescents at SMK Negeri 3 showed that almost all respondents experienced vaginal discharge, namely 91.4%, while only 8.6% did not experience it⁷. The study by Setyorini et al (2023) also found that the habit of maintaining genital hygiene is associated with vaginal discharge, where respondents with poor hygiene behavior tend to experience pathological vaginal discharge⁸. Another study by Morhead (2023) reported that education through video media was effective in increasing knowledge and preventive behavior regarding vaginal discharge among adolescents, as evidenced by an increase in post-test results².

Vaginal discharge is one of the complaints that arise due to infection or disorders of the reproductive organs. Pathological vaginal discharge is usually characterized by changes in color, odor, or consistency of the secretions, and may be accompanied by itching, lower abdominal pain, or blood⁹. If not treated immediately, this condition can spread to the uterus and fallopian tubes, triggering pelvic inflammation, infertility, and even becoming an early trigger for cervical cancer. Although often considered trivial by teenagers, recurrent vaginal discharge can

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indicate other diseases such as trichomoniasis, bacterial vaginosis, candidiasis, or cervical polyps, and has the potential to increase the risk of cervical cancer in the future¹⁰.

To encourage adolescent girls to practice good hygiene, behavioral change is needed, starting with increased knowledge. Education about personal hygiene is an important strategy to help adolescents develop healthier lifestyle habits. Before lifestyle changes can occur, adolescents need to be equipped with the right understanding, attitudes, and actions, as well as access to health information and services. Health maintenance efforts based on knowledge and awareness through the learning process will shape more permanent and sustainable behaviors¹¹.

In this study, researchers used educational videos as a medium. Educational videos are a learning method that conveys information through a combination of sound and images, allowing messages to be received more clearly. Audiovisual media has a powerful influence on behavior because it stimulates both the senses of sight and hearing. The combination of these two elements makes the understanding process more effective. This is in line with the fact that most information, around 75–87%, is received through the sense of sight, while the rest is received through other senses¹².

Based on the above description, researchers are interested in conducting research to determine whether there is an “Effect of Video-Based Personal Hygiene Education on Vaginal Discharge Prevention Behaviors Among Adolescents in Tuban.”

2. METODE

This study used a pre-experimental design with a one-group pre-test post-test approach to determine the effect of video-based health education on the prevention of earwax buildup among adolescents in three schools, namely SMPN 6, SMPN 2, and SMPN 4 in Tuban Regency. The research population consisted of

120 adolescents from the three schools. The sample was determined using the Slovin formula, and the number of samples obtained was then rounded to 40 respondents. The intervention provided was health education through videos containing information about the causes, risks, and preventive measures for cerumen impaction. Data collection was conducted using a closed questionnaire to assess knowledge and preventive behavior before and after education. Assessment categories included good (76–100%), fair (56–75%), and poor ($\leq 55\%$). The research instrument has undergone validity testing with values above the table r and reliability using Cronbach's Alpha above 0.80, so it is declared valid and reliable. Data analysis used the Wilcoxon Signed Rank Test with the help of SPSS at a significance level of 0.05 to determine the difference in preventive behavior before and after providing education through video media.

3. RESULTS AND DISCUSSION

Table 1. Distribution of Respondents

Characteristics	N	%
Age		
12 years old	11	27
13 years old	29	73
Preventive Behavior Against Vaginal Discharge Before Education is Provided		
Good	6	15
Fair	30	75
Less	4	10
Preventive Behavior Against Vaginal Discharge After Receiving Education		
Good	35	88
Fair	5	12
Less	0	0

Based on Table 1, most respondents were 13 years old (73%). Before receiving education, most respondents had adequate vaginal discharge prevention behaviors (75%). After receiving education, almost all respondents demonstrated good vaginal discharge prevention behaviors (88%).

Table 2. Analysis of the effect of health promotion using flipbooks on knowledge about diabetes mellitus among the elderly

Personal Hygiene Education	Preventive Behavior for Vaginal Discharge			Total
	Good	Fair	Less	
Pre-Test	6 (15%)	30 (75%)	4 (10%)	40 (100%)
Post-Test	35 (88%)	5 (12%)	0 (0%)	40 (100%)
<i>Wilcoxon Signed Ranks Asymp, sig (2-tailed)=0,000</i>				

Table 2 shows that of the 40 (100%) respondents, before being given personal hygiene education, most had vaginal discharge prevention behaviors in the adequate category, namely 30 (75%) respondents. After being given education, there was a change in behavior, where almost all respondents had vaginal discharge prevention behaviors in the good category, namely 35 (88%) respondents.

Preventive Behavior Against Vaginal Discharge Before Providing Personal Hygiene Education through Video Media to Adolescents

The results showed that of the 40 (100%) adolescents at Tuban Junior High School, before being given personal hygiene education using video media, most of the respondents, namely 30 (75%), had adequate vaginal discharge prevention behavior, while 4 (10%) were in the poor category and 6 (15%) were in the good category.

This study is in line with Medcalf's (2021) findings, which reported that almost all adolescent girls, namely 93.6%, experienced vaginal discharge, while only 6.4% did not. These findings indicate that the incidence of vaginal discharge among female students is very high¹³.

Vaginal discharge is the discharge of fluid from the vagina other than blood that occurs outside of normal conditions. It may or may not

have an odor, and is often accompanied by itching in the area. This discharge is generally white in color, odorless, and laboratory tests usually show no abnormalities¹⁴. Vaginal discharge can occur physiologically due to the influence of certain hormones. This condition is not a disease in itself, but is a sign or symptom of a disorder of the reproductive organs that requires treatment. Vaginal discharge can cause discomfort and is also known as leukorrhea, fluor albus, or vaginal discharge¹⁵.

Vaginal discharge is a common problem experienced by many women. However, most women do not understand what vaginal discharge is or what causes it. If left untreated, vaginal discharge can have serious consequences, such as infertility or ectopic pregnancy (pregnancy outside the womb). In fact, the early symptoms of cervical cancer often begin with vaginal discharge¹⁶.

Good vaginal hygiene practices play an important role in preventing vaginal discharge. Steps include washing your hands before touching the genital area, washing from front to back, drying the genitals, changing sanitary pads or pantyliners, using appropriate cleansing soap, and wearing loose-fitting cotton underwear⁵. A common problem is not washing hands and not drying the genital area properly, which increases the risk of bacterial contamination that causes vaginal discharge¹⁷.

Poor hygiene practices can trigger bacterial growth and are closely related to pathological vaginal discharge. This is supported by previous studies showing a relationship between knowledge, attitudes, and hygiene practices and the incidence of vaginal discharge¹⁹. Sulianti (2020) also reported that among adolescents with poor personal hygiene habits, most experienced pathological vaginal discharge⁵.

Poor genital hygiene is a major factor contributing to vaginal discharge in adolescents. If left unchecked, poor genital hygiene can lead

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to various infections such as candidiasis, bacterial vaginosis, irritation, and an increased risk of reproductive tract infections and other serious diseases⁵.

This study is in line with the findings of Dwi Novitasari (2021), which show that the average behavior of adolescents in preventing vaginal discharge before receiving education was in the adequate category (51%). This condition occurs because adolescents have not obtained adequate information about personal hygiene, resulting in less than optimal preventive measures against vaginal discharge⁶.

This is consistent with the results of this study, in which limited knowledge about personal hygiene is an important factor influencing adolescents' behavior in maintaining genital hygiene. Lack of information causes adolescents to misunderstand proper care, ignore early symptoms, and potentially use inappropriate treatment methods.

Good information is essential for shaping healthy knowledge and behavior. Health education is one effective way to improve public understanding of how to maintain health and prevent health problems. Audio-visual media such as videos are also considered effective in reinforcing the learning process because they stimulate both hearing and sight simultaneously²⁰.

Based on theory and research findings, it can be concluded that before education was provided, the behavior of preventing vaginal discharge among adolescents at Tuban Junior High School was almost entirely in the adequate category. Low knowledge and lack of health education were the main factors influencing their behavior. Therefore, personal hygiene education using video media is expected to help improve the behavior of preventing vaginal discharge among adolescents.

Identification of Preventive Behavior Against Vaginal Discharge After Providing

Personal Hygiene Education Using Video Media to Adolescents

The results showed that after receiving personal hygiene education through video media, preventive behavior against vaginal discharge among adolescents increased, with 35 out of 40 respondents (88%) falling into the good category and 5 respondents (12%) falling into the fair category based on the post-test questionnaire results.

Muftadiyah's (2022) research also showed similar results, namely an increase in vaginal discharge prevention behavior among respondents after receiving education through videos. Video media is considered effective because it is able to present health information visually and attractively, making it easier for recipients to understand and remember²¹.

The formation of one's own attitude is influenced by several factors, such as knowledge, personal experience, emotional condition, education, and figures who are considered important. Darwis (2024) explains that information obtained through health education will be processed and understood by respondents, thereby triggering a change in attitude that makes them pay more attention to their reproductive health²².

According to Karmi et al (2024), health education is an effort to help individuals acquire knowledge so that they are able to act independently or collectively to achieve a healthy condition. Behavioral changes that arise from this educational process are formed through understanding and awareness, so they tend to be long-lasting²³.

Teenagers' knowledge about vaginal discharge forms the basis for preventive behavior. When they understand the symptoms, causes, and treatment, preventive actions arise more consciously. Awareness that vaginal discharge can pose risks also makes adolescents more cautious when experiencing symptoms. Simple habits such as maintaining genital

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hygiene or changing underwear 2–3 times a day will become automatic when adolescents have sufficient information about vaginal discharge²⁴.

Knowledge is a cognitive aspect that plays an important role in shaping behavior. Actions based on understanding tend to last longer, so health education needs to be delivered using interesting methods and media to make it easier to accept. In this study, the seven-day interval between the pre-test and post-test gave respondents time to process the information and turn it into new habits²⁰.

This is reinforced by research conducted by Usrina (2023), which reports that education over three sessions can increase preventive behavior against vaginal discharge to a high level. Education through videos helps clarify information about causes, risk factors, and appropriate prevention methods, so that adolescents are more motivated to consistently practice healthy behaviors²⁵.

Based on theory and research findings, researchers assume that the increase in vaginal discharge prevention behavior among adolescents occurred due to personal hygiene education interventions through videos. Video media helped reinforce respondents' knowledge about the causes and risk factors of vaginal discharge, provided clearer explanations about appropriate preventive measures, and encouraged their awareness and motivation to consistently apply these behaviors in their daily lives.

Analysis of the Effect of Personal Hygiene Education Through Video Media on the Prevention of Vaginal Discharge in Adolescents

Data analysis in this study used the Wilcoxon test. The results of statistical tests in this study indicate that personal hygiene education using video media has an effect on vaginal discharge prevention behavior among adolescents at SMPN Tuban.

One form of health education in schools is through education delivered using methods and media appropriate to the target audience. Media plays an important role in the successful delivery of education. The group approach through lectures and discussions is considered effective because it enables behavioral change through active participation and the exchange of experiences among participants⁴.

Attitudes and behaviors in caring for reproductive organs are key to maintaining reproductive health. When adolescents have good knowledge about genital hygiene, they tend to take more appropriate preventive and treatment measures related to vaginal discharge. Improved behavior after education can occur because adolescents are able to understand the material provided. In this study, the delivery of education through lectures supported by video media containing material and visuals about vaginal discharge and feminine hygiene helped respondents absorb information more easily²⁶.

This finding is in line with the research by Nasution et al. (2021), which states that vulva hygiene education through lectures combined with video media is an effective way to convey information, including material on reproductive health²⁷.

Based on theoretical analysis and research results, personal hygiene education using video media has been proven to contribute to improving vaginal discharge prevention behavior among adolescents in junior high schools in Tuban Regency. In the initial measurement (pre-test), most respondents were in the adequate category. After the intervention was given, the results of the re-measurement (post-test) showed that almost all respondents reached the good category. This significant change shows that video-based personal hygiene education is effective in improving vaginal discharge prevention behavior. This effectiveness is supported by the

high level of respondent engagement during the education process, as well as the delivery of material through videos that are able to broaden understanding of female hygiene and vaginal discharge. This increased understanding contributes to the formation of more optimal preventive behavior.

4. CONCLUSION

Personal hygiene education through video media has been proven to produce a significant improvement in the prevention of vaginal discharge among adolescents in junior high schools in Tuban Regency. The findings of the study show that before the intervention, most respondents were in the adequate behavior category, while after the intervention, the majority of respondents were in the good category. The effectiveness of this intervention was influenced by the systematic and easy-to-understand presentation of the material through video visualization, which contributed to an increase in understanding of female hygiene and vaginal discharge prevention practices.

For future researchers, it is recommended to involve a larger sample size and optimize the implementation of monthly video-based education to improve the effectiveness of reproductive health promotion among adolescents.

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