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## Research Article

# The Effect of Health Promotion Using E-Health Versus Lecture Toward Knowledge of Personal Hygiene Among Junior High School Students in Banten

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### Abstract

**Aims:** Knowing the effectiveness of health promotion between the e-health method and the lecture method on knowledge of personal hygiene external genitalia in junior high school students at Pondok Pesantren Latansa Lebak Banten.

**Method:** The study involved 84 female students at SMP Pondok Pesantren Latansa Lebak Banten, using a quasi-experimental design, pretest-posttest, and control group design.

**Result:** The results of univariate research on personal hygiene knowledge of external genitalia with health promotion e-health method obtained before that most were sufficient 47.6% and after most were good 71.4%. Knowledge of external genitalia personal hygiene with the lecture method health promotion was obtained before most of it was 50.0% and after most it was enough 52.4%. The bivariate results of the paired simple t test were 0.000 and the independent t test obtained a p value = 0.003.

**Conclusion:** The e-health method is more effective in promoting knowledge of external genitalia personal hygiene among junior high school students than lecture methods, and cooperation with health workers is hoped to improve female students' hygiene practices.

### Keywords:

**E-Health Method, Health, Knowledge, Lecture Method, Personal Hygiene, Promotion.**

## INTRODUCTION

Nowadays, according to many emerging infectious diseases in developing countries and including Indonesia, it is still a reproductive health problem (1). The World Health Organization (WHO) defines reproductive health as a condition of physical, spiritual, social, economic well-being, not only free from disease or disability but in all matters relating to the reproductive system, its functions, and processes. Reproductive organs are organs that are susceptible to moisture so that sexual organs can become a medium for the growth of bacteria and diseases (2).

According to the findings of a survey that was carried out by the World Health Organization (WHO) in a number of countries, adolescent females between the ages of 10 and 14 years old have difficulties with their reproduction. Maintaining the cleanliness of female organs is very important for women, particularly during menstruation, because the conditions in the female area are humid, which means that cleanliness must be maintained. The problems that occur in women's reproductive health are serious, and it is very necessary for women to keep the

cleanliness of their organs. The pH balance will be disrupted if adolescents are less concerned about the cleanliness of their reproductive organs. For instance, the acidity level will decrease, natural defenses will also decrease, and adolescents will be more susceptible to infections such as vaginitis, vaginal discharge, or Reproductive Tract Infections (ISR) (3). According to the World Health Organization (WHO) in 2020, almost all women and adolescents have experienced vaginal discharge, 60% in adolescents and 40% in Women of Childbearing Age (WUS), while European women who experience vaginal discharge are 25% (4). Approximately 75% of women worldwide will inevitably encounter vaginal discharge at least once in their lives, with up to 45% experiencing it twice or more. In Europe, the prevalence of vaginal discharge among women is 25%, with 40-50% experiencing a recurrence (5).

In Indonesia, 75% of women who have ever had vaginal discharge will have it again at some point in their lives; this number drops to 50% in teenagers and 25% in women who are pregnant or breastfeeding. In comparison to other countries, this one has 25%. The reason behind this is that vaginal discharge is more common among Indonesian women due to the humid weather. Humid weather also makes it easier for fungal infections to develop (6).

According to statistical data, the population A total of 3,559,685 women in Banten Province have reported vaginal discharge, making up 27.60% of the province's population. The majority of these women are teenagers or young adults (10–20 years old) (7). Based on the 2019 population census, the number of teenagers in Lebak Regency reached 897,113 people or women who experience vaginal discharge amounting to 29.48% of the total population (8). Reproductive health issues are very important to know, where during this fertile period women must maintain and care for personal hygiene, namely maintaining the condition of their genitals by diligently cleaning them. Vaginal discharge is caused

by fungi, parasites such as pinworms or germs (*trichomonas vaginalis*) (9). Women are susceptible to reproductive disorders because women's reproductive organs are directly connected to the outside world through the vaginal canal, uterine cavity, fallopian tubes or fallopian tubes that empty into the mother's stomach (10). Referring to this opinion, improper personal hygiene practices are at risk of microbial growth which can cause the vagina to smell bad or cause vaginal discharge, this can cause various diseases of the reproductive organs (11). According to Nurhayati (2019), one of the elements that impact personal hygiene is knowledge. Unfortunately, not all teenagers have access to accurate and comprehensive information regarding reproductive health, which can hinder their ability to make healthy and responsible decisions. Adolescents may engage in risky activity due to their lack of knowledge and comprehension (12).

Health promotion is a process of empowering or making the community independent so that the community is able to maintain and improve the quality of their health by providing health education, health counseling and Information Communication, and Education (KIE) (13). Health education is in the form of information that is conveyed with the hope that students will learn it and can influence their knowledge. One of the health promotion efforts is carried out by providing lecture or counseling methods. Behavior that is based on knowledge is more durable when compared to behavior that is not based on knowledge. Adolescent reproductive health education is part of the right to have knowledge, awareness, attitudes and responsible reproductive health behavior. Health education using the lecture method can increase knowledge about vulva hygiene care in female students. This can be seen from the results of Ramadhani and Ramadani's research (2020) showing a p value of  $0.000 < \alpha (0.05)$  which means that there is an effect of health education using the lecture method on knowledge about sexually transmitted

infections in adolescents. Additional findings from the study by Dolang and Kiriwenno demonstrated that female students at SMP Negeri 1 Masohi had an effect of health education on their knowledge ( $p = 0.000$ ) about menstrual hygiene. The study conducted by Sari et al. (2021) also found that H1 is accepted, with a p-value of  $0.000 < \alpha 0.05$ .

The existence of Information and Communication Technology (ICT) has experienced very rapid progress, computers and the internet with their dynamic nature are facilities that have dominated various life activities, especially teenagers are one of the largest users of the rapid development of information and communication technology. Data according to a survey by the Indonesian Internet Service Providers Association (14) states that the most internet users grouped by age are in the 13-18 year age range, which is 75.50%.

Referring to this opinion, internet media can be used for health promotion media, including the e-Health method. The e-Health method is a method that utilizes information and communication technology to deliver information and services related to health (15). The information provided can accelerate someone to gain new knowledge (14). In the course of her research, Noviandini found a p value of 0.000 (0.05), indicating that there is a substantial influence on the process of growing the level of knowledge among adolescents on HIV/AIDS. A Wilcoxon test was performed on the android application approach, and the results showed that all of the respondents saw a gain in knowledge with a p-value of 0.000. This was demonstrated by the findings of earlier studies that Dinengsih and Hakim had undertaken. According to the findings of the Mann Whitney test, it is known that the p-value of 0.000 indicates that the provision of an Android application is more successful in enhancing the level of awareness that adolescents have regarding reproductive health conditions.

Based on a preliminary study conducted by

researchers at the Latansa Lebak Banten Islamic Boarding School, out of 10 female teenagers, 6 had low knowledge about good personal hygiene, especially the external genitalia. Based on the interview results, it turned out that all of them had never received information exposure in the form of counseling on personal hygiene of external genitalia. In addition, it turned out that the library did not have reading books related to personal hygiene of external genitalia and meanwhile at the Latansa Lebak Banten Islamic Boarding School there was no learning related to informatics techniques so that they gained knowledge about personal hygiene of external genitalia in passing through religious lessons (purification) and science lessons. Meanwhile, at the Latansa Lebak Banten Islamic Boarding School there were computer laboratory facilities that could be used to search for information related to health. Based on the background and preliminary study, the researcher was interested in conducting a study entitled "The Effectiveness of Health Promotion between the e-Health Method and the Lecture Method on Personal Hygiene Knowledge of External Genitalia in Junior High School Students at the Latansa Lebak Banten Islamic Boarding School.

## METHODS

The design of this study is one that is considered to be quasi-experimental. Specifically, a control group pre-test-post-test design was utilized for this study. The health promotion methods of e-health and the lecture methods are the independent variables that are being investigated in this study. The level of knowledge on the personal cleanliness of external genitalia might be considered the dependent variable in this study. Computers and questionnaires are the different instruments that are utilized. Questions regarding the individual's knowledge of personal cleanliness of external genitalia are included in this questionnaire, along with the individual's name, class, and age. All of the participants in this study were female

students attending SMP Pondok Pesantren Latansa Lebak Banten, contributing a total of 84 responses to the survey. Total sampling was the method that was utilized for the sampling in this investigation. On the basis of this statement, the respondents were separated into two groups: group A, which was the experimental group that received health promotion about personal hygiene of external genitalia through the use of the e-health method, which included as many as 42 respondents, and group B, which was the

experimental group that received health promotion about personal hygiene of external genitalia through the use of the lecture method, which also included as many as 42 respondents. The information was then processed by going through the steps of editing, coding, entering data, and tabulating the information. After that, the data was evaluated using a bivariate paired sample t-test analysis as well as a univariate frequency distribution analysis.

## RESULTS

### Univariat Analysis Result

**Table 1. Frequency Distribution of Personal Hygiene Knowledge of External Genitalia Before and After Health Promotion Using the e-Health Method for Junior High School Students at the Latansa Lebak Banten Islamic Boarding School**

Personal Hygiene Knowledge External Genitalia	Frequency (f)	Persentase (%)
<b>Before</b>		
Good	6	14,3
Enough	20	47,6
Low	16	38,1
<b>After</b>		
Good	30	71,4
Enough	12	28,6
Low	0	0,0
<b>Total</b>	<b>42</b>	<b>100</b>

Based on the results of the study in table 1, it is known that from 42 female students before being given health promotion using the e-health method, most of their knowledge of personal hygiene of external genitalia was sufficient, as many as 20 people (47.6%). And after being given health promotion using the e-health method, most of their knowledge of personal hygiene of external genitalia was good, as many as 30 people (71.4%).

**Table 2. Frequency Distribution of Personal Hygiene Knowledge of External Genitalia Before and After Health Promotion Using the Lecture Method for Junior High School Students at the Latansa Lebak Banten Islamic Boarding School**

Personal Hygiene Knowledge External Genitalia	Frequency (f)	Persentase (%)
<b>Before</b>		
Good	7	16,7
Enough	21	50,0
Low	14	33,3
<b>After</b>		
Good	18	42,9
Enough	22	52,4
Low	2	4,8
<b>Total</b>	<b>42</b>	<b>100</b>





Based on the results of the study in table 2, it is known that from 42 female students before being given health promotion using the lecture method, most of their knowledge of personal hygiene of external genitalia was sufficient, as many as 21 people (50.0%). And after being given health promotion using the lecture method, most of their knowledge of personal hygiene of external genitalia was sufficient, as many as 22 people (52.4%).

### Bivariat Analysis Result

**Table 3. Effectiveness of Health Promotion Using e-Health Methods on Personal Hygiene Knowledge of External Genitalia in Junior High School Students at Latansa Lebak Banten Islamic Boarding School**

Personal Hygiene Knowledge External Genitalia	Mean	Mean Difference	P Value
Before	5,38	2,88	0,000
After	8,26		

The results of the paired sample t-test showed a significance value of  $0.000 < 0.05$ , so it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, thus it can be concluded that there is an effectiveness of e-health method health promotion on knowledge of personal hygiene of external genitalia in junior high school students at the Latansa Lebak Banten Islamic Boarding School.

**Table 4. Effectiveness of Health Promotion Lecture Method on Personal Hygiene Knowledge of External Genitalia in Junior High School Students at Latansa Lebak Banten Islamic Boarding School**

Personal Hygiene Knowledge External Genitalia	Mean	Mean Difference	P Value
Before	5,83	1,55	0,000
After	7,38		

After conducting a paired sample t-test, the results revealed a significance value of 0.000, which is less than the threshold of 0.05. As a result, it is possible to draw the conclusion that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. Consequently, it can be concluded that the lecture method of health promotion is effective in promoting knowledge of personal hygiene of external genitalia among junior high school students attending the Latansa Lebak Banten Islamic Boarding School.

**Table 5. Differences in the Effectiveness of Health Promotion between the e-Health Method and the Lecture Method on Personal Hygiene Knowledge of External Genitalia in Junior High School Students at the Latansa Lebak Banten Islamic Boarding School**

Personal Hygiene Knowledge of External Genitalia	Mean	Mean Difference	P Value
e-Health Methods	8,26	0,88	0,003
Lecture Method	7,38		

The results of the Independent t-test showed a significance value of  $0.003 < 0.05$ , so it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, thus it can be concluded that there is a difference in the effectiveness of health promotion between the e-health method and the lecture method on personal hygiene

knowledge of external genitalia in junior high school students at the Latansa Lebak Banten Islamic Boarding School.

## DISCUSSION

### Frequency Distribution of Personal Hygiene Knowledge of External Genitalia

### Before and After Health Promotion Using the e-Health Method

Based on the results of the study, it was found that out of 42 female students before being given health promotion using the e-health method, most of their knowledge of personal hygiene of external genitalia was sufficient, as many as 20 people (47.6%). And after being given health promotion using the e-health method, most of their knowledge of personal hygiene of external genitalia was good, as many as 30 people (71.4%). A person's knowledge is essentially comprised of a collection of facts and beliefs that help them to find solutions to the challenges they are confronted with. The individuals acquire this information not just via their own personal experiences but also through the experiences of other people (16). Acquiring knowledge about the personal hygiene of external genitalia serves the objective of preventing and controlling infections, preventing damage to the skin, increasing comfort, and maintaining both personal hygiene and personal hygiene (17). Adolescents who are less concerned with the cleanliness of their reproductive organs will result in disturbed pH balance, for example, decreased acidity levels, natural defenses will also decrease, and are susceptible to infections such as vaginitis, vaginal discharge, and Reproductive Tract Infections (ISR) (3). The provision of health promotion through the use of the e-health technique is one attempt that is being made to expand knowledge. From Pagliari's perspective, e-health refers to the utilization of information networks derived from telecommunications technology, particularly the internet, with the intention of enhancing the quality of health services. When it comes to giving health information, e-health is helpful because it may provide information in the form of drug prescriptions as well as information about different types of ailments.

According to the findings of Noviandini's study, the standard of knowledge possessed by adolescents before to the implementation of the e-health technique was primarily in

the category of being bad, accounting for 49.3% of the total. Upon receiving the e-health technique, the majority of the knowledge was in the good group, which accounted for 63% of the total. In a similar vein, the findings of Putri's study revealed that the majority of respondents had good knowledge prior to receiving health promotion through the e-Health method, specifically 82.19%. However, after receiving health promotion regarding personal hygiene of external genitalia through the e-Health method, the results of respondents' knowledge showed that 95.89% of them had good knowledge. Dinengsih and Hakim conducted the same study, and the results of their analysis of the average score of adolescents' reproductive health knowledge prior to being given the Android application in the Android Application Method group were 67.3, with a minimum value of 48.4, a maximum value of 82.8, and a standard deviation of 9.4. The results of the study were presented in the form of graphs. The average knowledge score of respondents in the Lecture Method group grew to 86.3 at the time of the post-test, with a minimum score of 74.2, a maximum score of 100.0, and a standard deviation of 7.1. The range of possible scores was from 74.2 to 100.0.

The researcher assumes that there is an increase in knowledge in junior high school students related to personal hygiene of external genitalia through the e-health method, this indicates that providing health promotion through the e-health method can increase knowledge. The existence of new developments, namely computer media and the existence of an internet network, makes junior high school students able to search for information related to personal hygiene of external genitalia. They can find out about the purpose of personal hygiene of external genitalia, namely to prevent infection, prevent skin damage, increase comfort and maintain personal hygiene. In addition, junior high school students know the impacts that occur if they do not do personal hygiene properly, including vaginitis and

reproductive tract infections. Through the e-health method, junior high school students can ask questions about the material presented from various sources even though they do not ask questions verbally directly.

### **Frequency Distribution of Personal Hygiene Knowledge of External Genitalia Before and After Being Given Health Promotion Using the Lecture Method**

Based on the results of the study, it was found that out of 42 female students before being given health promotion using the lecture method, most of the personal hygiene knowledge of external genitalia was sufficient, as many as 21 people (50.0%). And after being given health promotion using the lecture method, most of the personal hygiene knowledge of external genitalia was sufficient, as many as 22 people (52.4%).

Knowledge is essentially a collection of facts and theories that help people solve problems. This knowledge is derived from both their own firsthand experience and the experiences of others (16). The principles of personal hygiene in external genitalia according to Manan are to maintain vaginal cleanliness so that it is not damp, when washing, rinse it from the genitals to the anus, do not use chemical cleaning tools for the vagina, dry the vagina with a special clean towel and sanitary napkins must be changed at least 2-3 times a day to avoid bacterial growth. One of the efforts to improve health is by providing health promotion with the lecture method (18). A lecture is a speech delivered by a speaker in front of an audience. Lectures are fundamentally the transfer of knowledge from the teacher to the learning goal (19).

### **The Effectiveness of Health Promotion Using the e-Health Method on Personal Hygiene Knowledge of External Genitalia**

Based on the results of the study shows a p value = 0.000 < 0.05, which means that there is an effectiveness of e-health health promotion methods on knowledge of personal hygiene of external genitalia in

junior high school students at the Latansa Lebak Banten Islamic Boarding School.

Budiman and Riyanto consider that education and the media influence knowledge. Information received through formal and informal education can have a short-term impact, resulting in changes and greater knowledge. Information influences a person's knowledge; if they frequently acquire information about a lesson, their knowledge and insight will rise; if they do not receive information on a regular basis, their knowledge and insight will decrease. According to Pagliari, e-health is an application of communication and information technology that encompasses all aspects of the health sector. Health information is transmitted electronically in the form of pictures, audio, or video. Medical personnel are involved in the construction of e-Health.

According to Noviandini's research, statistical calculations using the Wilcoxon test yielded p values of 0.000 or  $p(0.000) < \alpha(0.05)$ , indicating that the e-health method has a significant impact on increasing adolescent knowledge. Putri's research found a significant difference between pre-test and post-test values using the e-Health approach, as indicated by a Wilcoxon test p value of 0.000 (p value < 0.05). This is demonstrated by the increase in the average pre-test value of 8.64 to the average post-test value of 9.37, implying that health promotion using the e-Health method has a positive effect on respondents' knowledge levels or that knowledge of personal hygiene of external genitalia has increased. Dinengsih and Hakim's study found a significant difference in knowledge scores before and after receiving an Android-based application in the intervention group ( $p < 0.05$ ).

Researchers believe that the e-health strategy is beneficial in promoting knowledge of personal hygiene of external genitalia in female students because it is a health-related application. In this situation, the information is given in the form of videos



or text to pique female students' interest in furthering their search for material about external genital cleanliness. In addition to its appealing appearance, it can increase female students' knowledge because female students can ask questions about the material without being noticed by others, especially if the material presented is about a person's privacy, allowing them to freely ask whatever they want without feeling embarrassed.

### **The Effectiveness of Health Promotion Using Lecture Method on Personal Hygiene Knowledge of External Genitalia**

Based on the study, it shows that the p value = 0.022 < 0.05, which means that there is an effectiveness of health promotion using the lecture method on knowledge of personal hygiene of external genitalia in junior high school students at the Latansa Lebak Banten Islamic Boarding School.

According to Budiman and Riyanto, education is one element that influences knowledge. Knowledge can generally be gained from information transmitted by parents, teachers, and the media. A person's experience with an issue will teach them how to solve it. The information transfer process consists of three key components: teachers, resources, and learning objectives. The lecture method is useful for increasing a person's knowledge (20). The lecture technique entails describing or explaining something to a large group of pupils all at once in a predetermined location and time. The auditory system is the sole and primary means of information transmission in this type of teaching. Put another way, this is a way of teaching wherein a teacher talks at length to a group of students, who sit quietly and absorb the material (19). In line with the research results of Dolang and Kiriweno showed that most respondents experienced an increase in knowledge after being given health education. There were only six respondents who did not experience an increase in knowledge after being given health education. The results of the statistical test showed that the p value =

0.000. Because the p value < 0.005, H<sub>0</sub> is rejected, meaning that there is an effect of providing health education on knowledge about menstrual hygiene in female students at SMP Negeri 1 Masohi. Likewise with the research results of Sari et al. (2021) obtained a value of p = 0.000 < α 0.05, which means that there is an effect of health education through the lecture method on knowledge about personal hygiene during menstruation in adolescent girls. Different from the research results of Ramadhani the difference in the mean before and after being given health education was  $-1.043 \pm 3.551$ , the 95% IK value was  $-2.085 \pm .000$  and the p value was 0.930. This means that there is no effect of providing health education with the caramah method on knowledge. Researchers assume that health promotion using the lecture method is effective in terms of personal hygiene knowledge of external genitalia in junior high school students, this is because through the lecture method, students will understand what is being conveyed, especially if the speaker explains based on their experience, making students feel it more. Through learning with the lecture method, junior high school students know about efforts to maintain cleanliness in the vaginal area, one of which is by keeping the area dry, how to clean the genitals from the vagina to the anus, and efforts not to use chemical cleaners for the vagina too often.

### **Differences in the Effectiveness of Health Promotion between the e-Health Method and the Lecture Method on Personal Hygiene Knowledge**

As a result of the findings of the study, which indicate that the significance value of 0.003 is less than 0.05, it is possible to draw the conclusion that the null hypothesis (H<sub>0</sub>) is rejected and the alternative hypothesis (H<sub>a</sub>) is accepted. Consequently, it is possible to draw the conclusion that there exists a distinction in the effectiveness of health promotion between the e-health method and the lecture method in relation to the knowledge of personal hygiene external

genitalia among junior high school students attending the Latansa Lebak Banten Islamic Boarding System.

The e-health method is able to increase knowledge higher than the use of the lecture method, through the e-health method students can find information related to the understanding, impacts and efforts to overcome problems related to personal hygiene external genitalia which can be viewed repeatedly with interesting media because there are video elements in it, different from the lecture method students only listen to information conveyed by the resource person without being able to ask directly related to the problem to be conveyed because of a sense of shame if it is known by others with limited time.

Health promotion is an effort to improve community capabilities through self-learning by and for the community so that they can help themselves, and develop activities that are resourced by the community according to local socio-culture and supported by public policies that are health-oriented (21) Information sent electronically health in the form of visual, audio, video. The creation of e-Health involves medical personnel in its creation (22). Rosadi (2019) explains that the advantages of E-Health include helping the community in the health sector because some people are still unfamiliar with treatment and still use alternative medicine; making it easier to get information about health, health services, drugs, diseases and others, so that people can prevent or treat diseases early; find information about a healthy lifestyle and find discussion groups about health. While the lecture method is also called the lecture method or speech method, in other words this method is a teaching method by conveying information and knowledge verbally to a number of students who generally follow passively (19).

In accordance with the research findings of Dinengsih and Hakim, the lecture method and the android-based application method

have a difference in their impact on the reproductive health knowledge of adolescents, with a p value of 0.000. The android-based application demonstrates a higher level of knowledge than the lecture method. Similarly, Ramadhani's research revealed a statistically significant difference in the impact of health education with the lecture method and audiovisual media on sexually transmitted infections in adolescents, with a p value of 0.001. The audio-visual method is more effective than the lecture method in terms of knowledge acquisition. This is because the audio-visual method employs both sight and hearing, whereas the lecture method exclusively employs hearing. In contrast to Putri's research, the post-test results of knowledge between the two methods in her research showed a p value of Asymp. Sig. (2-tailed) 0.641 ( $p > 0.05$ ). Therefore, it can be inferred that the two methodologies have no discernible difference in their ability to enhance students' understanding of personal hygiene with respect to their external genitalia. The two methods are regarded as having no significant differences, as they are both equally effective in enhancing students' understanding of personal hygiene practices regarding external genitalia.

The researcher posits that there exists a disparity in the efficacy of health promotion between the e-health approach and lectures on the understanding of personal cleanliness of external genitalia. Specifically, the e-health approach demonstrate a greater capacity to enhance knowledge compared to the lecture technique. This is because the e-health approach enables students to effectively search for information on the comprehension, consequences, and strategies to address issues pertaining to personal hygiene of external genitalia. This information can be accessed repeatedly through engaging media, such as videos or written content, and can provide answers to questions that are intended to be asked anonymously. This material is particularly relevant to personal privacy, so eliminating

any potential embarrassment when asking questions, as it is already known by others. Under the lecture method, students are limited to listening to information presented by the resource person without the opportunity to ask questions directly related to the issues being discussed. This is because they feel ashamed if the information is known by others and the delivery is not well understood or interesting. As a result, students are unable to concentrate on listening to the information being conveyed. The presence of these disparities renders health promotion using e-health approaches outperforming health promotion through lecture methods.

## CONCLUSIONS

The e-health method is effective in promoting health among junior high school students at the Latansa Lebak Banten Islamic Boarding School, especially in terms of their knowledge of personal hygiene regarding external genitalia. The e-health method and the lecture method differ in their efficacy in promoting health among junior high school students at the Latansa Lebak Banten Islamic Boarding School with respect to their understanding of personal hygiene and external genitalia. Junior high school students at the Latansa Lebak Banten Islamic Boarding School were provided with health promotion using the e-health method before and after. The majority of students were satisfactory, with a score of 47.6%, while the majority were fine, with a score of 71.4%. When junior high school pupils at the Latansa Lebak Banten Islamic Boarding School were subjected to health promotion using the lecture method before and after, the majority were deemed sufficient by as much as 50.0%, while the majority were deemed sufficient by as much as 52.4%. The e-health method is effective in promoting health among junior high school students at the Latansa Lebak Banten Islamic Boarding School, especially in terms of their knowledge of personal hygiene regarding external genitalia.

## REFERENCE

1. Ganong, Wiliam F. Medical Physiology. Jakarta: BookPublisher; 2019.
2. Heffner LJ, Schust LJ. A Glance at the Reproductive System. Erlangga; 2019.
3. Kasdu D. Solusi problem wanita dewasa. Niaga Swadaya; 2005.
4. WHO. Guideline : calcium supplementation in pregnant women. 2021;
5. Wahyuni, Sri, Soelistyowati E. Hubungan Kebersihan Diri dengan Kejadian Keputihan pada Remaja Putri di SMA Dharma Wanita 4 Taman Sidoarjo. . Jurnal Keperawatan. 2021;
6. Nurul, Qomariyah. . (2021). Infeksi Saluran Reproduksi (ISPA) pada Wanita Indonesia. 2021.
7. Ministry of Health of the Republic of Indonesia. Health Profile of Indonesia. Ministry of Health Indonesia. 2022;
8. Dinas Kesehatan Provinsi Banten. Profil Kesehatan Provinsi Banten 2021. Dinas Kesehatan Provinsi Banten. 2022;
9. Aulia. Serangan Penyakit Khas Wanita yang Paling Sering Terjadi. bluebook; 2020.
10. Baradero. Klien Gangguan Sistem Reproduksi dan Seksualitas. EGC; 2019.
11. Susanti. Pemberian Stimulasi Dan Perkembangan Motorik Anak Usia 1-3 Tahun Di Kelurahan Krembangan Kecamatan Morokrembangan Surabaya. Jurnal Ners LENTERA. 2016;
12. Kumalasari I, Andhyantoro I. Kesehatan reproduksi untuk mahasiswa kebidanan dan keperawatan. Jakarta: Salemba Medika. 2012;14:22.
13. Maulana, Heri. Promosi Kesehatan. EGC; 2019.
14. Adi S. binus. 2019. Medical E-Health.
15. Sri Yuhandini D, Widiyastuti D. PERAN PENDIDIKAN KESEHATAN



- DENGAN MEDIA LEAFLET DAN AUDIO VISUAL (VIDEO) TERHADAP PENGETAHUAN SUAMI TENTANG TANDA BAHAYA PADA KEHAMILAN DAN NIFAS TAHUN 2017. *Journal of Maternity of care and Reproductive Health*. 2021;4(2):178–93.
16. Wawan A, Dewi M. Teori dan pengukuran pengetahuan, sikap dan perilaku manusia. Yogyakarta: Nuha Medika. 2010;12.
  17. Alin. *Health Behavior Concept*. 2020;
  18. Susilowati D, Susilowati D. Promosi kesehatan. 2016;
  19. Dharmalingam T, Kamaluddin M, Hassan S, Zaini R. The needs of Malaysian family members of critically ill patients treated in intensive care unit, Hospital Universiti Sains Malaysia. *Malaysian Journal of Medicine and Health Sciences*. 2016;12(2):9–17.
  20. Notoatmodjo S. Pendidikan dan Perilaku Kesehatan. 2020.
  21. Health of the Republic of Indonesia. *Indonesian Health Profile 2019*. In: Ministry of Health of the Republic of Indonesia. In: Ministry of Health of the Republic of Indonesia. 4th ed. 2019.
  22. Jamil M, Khairan A, Fuad A. Implementasi aplikasi telemedicine berbasis jejaring sosial dengan pemanfaatan teknologi cloud computing. *JEPIN (Jurnal Edukasi dan Penelitian Informatika)*. 2015;1(1).