



RESEARCH ARTICLE

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The Effect of Health Education on Hygiene During Menstruation and Personal Hygiene of Santriwati (Female Student) at Boarding School

Arifa Retnowuni*, Shrimarti Rukmini Devy*, Rika Subarniati Triyoga*

*Faculty of Public Health, Airlangga University, Indonesia

Email: arifahhilmi@gmail.com

ABSTRACT

Islamic boarding school (Pesantren) as educational institutions have problems about personal hygiene and hygiene during menstruation. Therefore, it is necessary to have health education programs to change personal hygiene behaviour and hygiene during menstruation which aim at improving the female students health status. This research aims at analyzing the influence of health education on female students behavior about personal hygiene and hygiene during menstruation at Dormitory X Darul 'Ulum Pondok Pesantren Darul Ulum Jombang. The research design used SOR theory (Organism-Stimulus-Response). Stimulus is giving intervention health education which includes personal hygiene and hygiene during menstruation. The research method used lectures with a slides and booklets aid. Pretest was conducted before the treatment and posttest was conducted after 3 times the interventions. The subject of the research was female students of dormitory X Pondok Pesantren Darul Ulum Jombang. Expected response of this research is change knowledge, attitude and practice of personal hygiene and hygiene during menstruation. The result can be said that health education significantly affects their knowledge, attitude, and practice regarding personal hygiene. It also significantly affects their knowledge, attitude, and practice of hygiene during menstruation.

Keywords: Health Education, Personal Hygiene, Hygiene during menstruation, Islamic Boarding School

INTRODUCTION

Background

Health behavior is a person's response (organism to stimuli or objects related to sickness and illness, health care system, food and beverage and environment) (Skinner, 1938) Proactive behavior to maintain and improve health, to prevent the risk of disease, threat of disease, and actively participate in the community movement (Ministry of Health, 2010). Health education an educational process concerned with providing a combination of approaches to lifestyle change that can assist individuals, families, and communities in making informed decisions on matters that affect the restoration, achievement, and maintenance of health (Modeste, 2004).

Preliminary studies found self-hygiene health problems such as skin hygiene including acne (71%), scabies (10%), Pytriasis versicolor (43%), hair hygiene including, Pediculosis Capitis (95%), Pytriasis Capitis (90%), dental hygiene (86%), hygiene and nose include ear serum (0%), nasal polyps (5%), foot and nail hygiene including water fleas (14%), Clavus (35%), hygiene during menstruation included vaginal itching (67%), whiteness (91%), irregular menstruation (14%), abdominal pain (76%).

Some researches indicate that female students is necessary to be given positive and good information through health workers, *ustadzah* and peers. Especially information is about personal hygiene and reproductive health, considering female students experienced manarce (first menstruation) in islamic boarding school. In addition, as we know female students who grow in the boarding school environment are away from parents, and *ustadzah* as their successor. Activities in their daily life are also shared with other female students, eating together, sleeping together and many religious activities performed simultaneously, thus the risk of contracting the disease and allowing environmental sanitation issues is also less secure.

Islamic boarding school as an educational institution that accommodates students in the form of dormitories is provided as a residence. There are many problems about personal hygiene and hygiene during menstruation, it can be imagined from the number thousand female students will be at risk of disease. Thus, a

health education program is required for behavioral changes regarding personal hygiene and hygiene during menstruation with the aim of improving female students health status.

The material of health education program at female students in Islamic boarding school (Pondok Pesantren) Darul Ulum adopted from self-cleaning book (Potter & Perry, 2005), Menstruasi Cleaning Management Program Indonesia (2015), ABAT Program (Aku Bangga Aku Tau) on Reproductive Health (Kemenkes, 2012), and a Guide on the Haid of the Indonesia Ulema Council (2016).

Purpose

This study purposed at analyzing the effect of health education on the female students behavior regarding personal hygiene and hygiene during menstruation at dormitory X Islamic boarding school (Pondok Pesantren) Darul Ulum Jombang. Specifically it purposes to: 1) Identify knowledge, attitude and practice of personal hygiene before and after health education treatment, 2) Identify knowledge, attitude and practice of hygiene during menstruation before and after health education treatment, 3) Identify the effect of health education on knowledge, attitude and practice of personal hygiene, 4) Identify the effect of health education on female students knowledge, attitudes and practices about hygiene during menstruation.

METHODS

This research was an experimental research, and it involved pre experiment design. The research design used was one group pretest posttest design and it was done before the treatment, variable observed / measured beforehand (pretest), after it was given treatment and after treatment measurement (post-test).

The research location was at Dormitory X Islamic Boarding School(pondok pesantren) Darul ‘Ulum of Jombang because this dorm has not yet been investigated. The intervention held in the auditorium of Islamic boarding school (pondok pesantren) Darul ‘ulum of Jombang.

The population in this study was junior high school female students of Dormitory X Islamic Boarding School (pondok pesantren) Darul ‘Ulum of Jombang, while the determination the sample size in this study can be explained by using formula big sample (Lemeshow, 2010).

$$n = \frac{2\sigma^2 \left(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \right)^2}{\mu_1 - \mu_2}$$

The minimum sample required research this was 17 respondents.

Variables in this study are:

- 1.The Knowledge of female students about personal hygiene
- 2.Knowledge about hygiene during menstruation female students
- 3.The attitude of female students about personal hygiene
- 4.Attitude female students about hygiene during menstruation
- 5.Practice female students about personal hygiene
- 6.The practice of female students about hygiene during menstruation.

This research gave 3 times treatment . First, it used lecturing method, the second was peer education aid and giving booklet, and the third was the video and audio visual as media. To analyze the data results of experiments using one group pre-test post test design, then use depending paired t test, with significant 5%.

RESULTS

Knowledge of Personal Hygiene Before and After Given Health Education at Student

Table 1. Distribution of knowledge category of personal hygiene before and after the treatment

Category of Knowledge	Before		After	
	n	%	n	%
Good	8	47.06	15	88.24
Medium	8	47.06	2	11.76
Less	1	5.88	0	0
Total	17	100.00	17	100.00

The result of knowledge of personal hygiene category in Table 1 shows that before treatment there were 8 female students (47.06%) in both categories while medium were 8 (47.06%) and less than were 1 (5.88%).

Meanwhile after the treatment there were 15 female students in good category (88.24%) and medium category were 2 people (11.76%).

Attitude About Personal Hygiene Before and After Given Health Education at Student

Table 2. Distribution of attitude category of personal hygiene before and after the treatment

Category of Attitude	Before		After	
	n	%	n	%
Good	7	41.18	16	94.12
Medium	10	58.82	1	5.88
Total	17	100.00	17	100.00

The results of the attitude of personal hygiene category in Table 2 show that before treatment there were 7 (41.18%) female students in good categories while medium were 10 female students (58.82%). Meanwhile, after the treatment treatment there were 16 female students (94.12%) in good category and the medium category were 1 person (5.88%).

Practices on Personal Hygiene Before and After given Health Education at Student

Table 3. The Distribution of practice category of personal hygiene before and after the treatment

Category of Practice	Before		After	
	n	%	n	%
Good	0	0	7	41.18
Medium	16	94.12	10	58.82
Less	1	5.88	0	0
Total	17	100.00	17	100.00

The result of personal hygiene practice category in table 3 shows that before the treatment there were 16 female students (94.12%) in medium category, and less category were 1 female students (5.88%). Meanwhile, after the treatment there were 7 female students (41.18%) in good category and the medium were 10 female students (58.82%).

Knowledge of Hygiene during menstruation Before and After Health Education is given to Student

Table 4. The Distribution of knowledge category of personal hygiene during menstruation before and after the treatment

Category of Knowledge	Before		After	
	n	%	n	%
Good	1	5.88	17	100.00
Medium	11	64.71	0	0
Less	5	29.41	0	0
Total	17	100.00	17	100.00

The result of personal hygiene practice category in table 4 shows that before the treatment there were 1 (5.88%) female students in good category while medium were 11 female students (64.71%) and less were 5 female students (29.41%). Meanwhile after the treatment there were 17(100%) female students in good category.

Attitude about Hygiene during menstruation Before and After Health Education given to Student

Table 5. The Distribution of hygiene attitude category during menstruation before and after the treatment

Category of Attitude	Before		After	
	n	%	n	%
Good	6	35.29	15	88.24
Medium	11	64.71	2	11.76
Total	17	100.00	17	100.00

The result of personal hygiene practice category in table 5 shows that before the treatment there were 6 (35.29%) female students in good category while medium category were 11 female students (64.71%). Meanwhile, after the treatment there were 15 (88.24%) female students in good category while 2 (11.76%) female students were in medium category.

Practice on Hygiene during menstruation Before and After Health Education was given to Student

Table 6. The Distribution of hygiene practice category during menstruation before and after the treatment

Category of Practice	Before		After	
	n	%	n	%
Good	0	0	13	76.47
Medium	16	94.12	4	23.35
Less	1	5.88	0	0
Total	17	100.00	17	100.00

The result of personal hygiene practice category in table 6 shows that before the treatment there were 16 (94.12%) female students in medium category, 1 female students (5.88%) were in less category. Meanwhile, after the treatment, there were 13 (76.47%) female students in good category, and 4 (23.53%) female students were in medium category.

The influence of health education on knowledge of personal hygiene

Test	Average	t	df	P
Pretest knowledge of personal hygiene	0.6912	-5.513	16	0.000
Posttest knowledge of personal hygiene	0.7994			

It was obtained the average of pretest value on personal hygiene knowledge of 0.6912 and post test value of 0.7994 so that an increase of 0.1082. The statistical value of Test t is -5.513 and the probability value is 0.000. If using a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means that there is a significant increasing in the value of personal hygiene knowledge after being given treatment.

The influence of health education on attitude of personal hygiene

Test	Average	t	df	P
Pretest attitude of personal hygiene	3.8376	-5.180	16	0.000
Posttest attitude of personal hygiene	4.3347			

It was obtained the average pretest value of personal hygiene attitude of 3.8376 and posttest value of 4.3347 so that an increase of 0.49706. The statistical value of Test t is -5.180 and the probability value is 0.000. If using a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means that there is a significant increasing in the value of personal hygiene attitude after being given treatment.

The influence of health education on personal hygiene practices

Test	Average	t	df	P
Pretest personal hygiene practices	2.7406	-4.200	16	0.000
Posttest personal hygiene practices	3.1318			

The average pretest value of self hygiene practice was 2.7406 and the posttest value was 3.1318, so it increased by 0.39118. The statistical value of test t was -4.200 and the probability value is 0.000. If it used a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means there is a significant increase in the value of personal hygiene practices after being given treatment.

The influence of health education on hygiene knowledge during menstruation

Test	Average	t	df	P
Pretest knowledge during menstruation	0.5441	-10.988	16	0.000
Posttest knowledge during menstruation	0.9571			

It got the average pretest value of hygiene knowledge during menstruation of 0,5441 and posttest value equal to 0.9571 so that experience increase equal to 0.41294. The statistical value of Test t was -10.988 and the probability value was 0.000. If using a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means there is a significant increase in the value of hygiene knowledge during menstruation after treatment is given.

The influence of health education on hygiene attitude during menstruation

Test	Average	t	df	P
Pretest hygiene attitude during menstruation	3.7606	-6.470	16	0,000
Posttest hygiene attitude during menstruation	4.4412			

It was obtained the average pretest value of hygiene during menstruation of 3.7606 and posttest value of 4.4412 so that an increasing of 0.68059. The statistical value of Test t was -6.470 and the probability value is 0.000. If using a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means there is a significant increase in the value of hygiene attitude during menstruation after treatment is given.

The influence of health education on hygiene practices during menstruation

Test	Average	t hitung	df	P
Pretest hygiene practices during menstruation	2.7347	-5.166	16	0.000
Posttest hygiene practices during menstruation	3.3188			

The pre est value of pretest hygiene practice during menstruation was 2.7347 and post test value was 3.3188, so it increased by 0.68059. The statistical value of Test t is -6.470 and the probability value is 0.000. If using a significance level of 5% (0.05), then it can be concluded $p < 0.05$ which means there is a significant increase in the value of hygiene practices during menstruation after treatment is given.

DISCUSSION

Identifying the students' knowledge, behaviour and practice about personal hygiene before and after having health education at Dormitory X, Pondok Pesantren Darul Ulum Jombang.

The result of female student post-test about personal hygiene on how to clean the eyes and ear lobe showed that most of the students have the lower value. This was due to their lack attention on eye hygiene and ear health. Furthermore, health education was conducted by using some kind of media and learning method such as lecturing, peer education and video as visual aid. As explained by Leavell and Clarkin Notoatmodjo (2010) that one of the efforts in preventing the disease based on health perspective is health promotion. Furthermore, the result of health education treatment is a kind of health promotion contributes to the change of female students knowledge level at Dormitory X.

The result of posttest regarding personal hygiene has the lowest value on the cleanliness of bedroom, bathroom and hair hygiene. Based the interview, the female students are lazy and tired due to teaching and learning activity which lead them not to clean their bedroom and bathroom. As explained by Yusuf(2005) that early adolescence is called negative period which characterize by feeling unhappy, lazy to work, pessimistic and etc. It means that there is a negative achievement, physically and mentally. Besides, they are negative in social attitude such as moving away from the society or even they are more agressive toward the society

In addition, the statement of female students about hair hygiene in term of the revealing dandruff and lice on their scalp decreased after the intervention. Their sleeping habit position by closing to each other can not avoid them from the revealing dandruf and lice on their scalp due to the cramped sleeping area. Thus, they should sleep closely to each other.

As Fitriana (2014) did in her research about pediculosis capitis or lice that 50 responden was investigated. They got active pediculosis capitis(100%). And there were no female students got pediculosis capitis (0%). The post test result on the personal hygiene has the lower value. This was due to the female students statement in term of borrowing their friend toiletries and using cotton buds to clean the ear. Another research was done by Muafidah (2016). It explained that the female students had lack personal hygiene due to their habit of borrowing toiletries (soap and towels). They also seldom to clean their bed (drying the bed, changing the pillowchase and bed linen). They have lack information in cleaning their ears therefore they still use cotton buds. Not merely the information, the cheap price of cotton bud lead them to use this.

The identifying of female students knowledge, attitude and practice regarding personal hygiene during menstruation before and after health education treatment at Boarding X Islamic boarding school (Pondok Pesantren) Darul Ulum Jombang.

Based on the result of the post test regarding about hygiene during menstruation that the value was high. The female students are adolescent which have a high curiosity. According Piaget, at the 12-year of age cognitive development of female student (santriwati) is included in the formal operational stage. They devise plans to solve their problems and test their possible solutions in a systematic and organized way. Freud (in Boeree, 2016) explained that the psychosexual development of adolescents at 12 years of age and above including to the genital stage. At this time adolescents begin to experience puberty when sex drive is very visible to them. According to Monks (2004) sexual problems easily occur before adolescence, but the manifestation of the other aspects is just visible at 13-14 years of age. Hence, it can be concluded in this subsection, the information obtained by female students (santriwati) is easily digested, because their interest in reproductive health is high.

The result of post test regarding personal hygiene during menstruation got the low value in term of menstruation cycles. This is due to their lack information especially about reproductive health. They have a schedule to watch TV arranged by the kyai around 21.00 – 22.30. In addition, they have a information about health education or counselling either in school or dormitory. Moreover, the study of menstruation in yellow book were explained not in detail, especially about menstrual cycles.

The result of post test about the practice of hygiene during menstruation got the low value. The low value was due to their lack ability on how to wash the vagina, washing the sanitary napkin, how to dispose of the sanitary wastes properly, wash and iron the panties. The lower ability of female students (santriwati) in washing the vagina is due to their lack information on how to wash it. In addition, the number of bathrooms are not comparable with the number of students. Hence they cannot wash their vagina because they are in a hurry in using bathroom.

The number of bathrooms are 22 while the number of the students are 248. This is inline with Badri in his research (2007) that the facilities in Islamic boarding school (pondok pesantren) are less than the number of the students which cause the female students do not wash properly. Besides, limited availability is one of the causes the female students throw indolent pads in or around the bathrooms. It was proved by the value was lower in this aspect, even tend to fall. At Dormitory X, there are 22 bathrooms which provide 8 rubbish bin and this mixed with household waste such drinking bottle or scraps. The female students also have the lower value in washing and ironing the panties. This due to the limited electrical switch. The owner does not provide many of it because of fear being abused.

Health education affects on the female students knowledge, attitude and practice of hygiene during menstruation at boarding X Islamic boarding school (Pondok Pesantren) Darul Ulum Jombang.

Another research is in line with this research was conducted by Pratama (2013). He examined the influence of health education on the change of students knowledge, attitude and behavior about the behavior of clean and healthy living in SDN 1 Mandong. Another research is in line with this research was conducted by Aulia (2014) who examines the influence of health education about personal hygiene on student knowledge and attitude in SDN REMBES 1. Audio visual method was easier to show the understanding, ideas and procedures about a thing which was once carefully prepared and to show how to carry out an action. The advantages is it can make the learning process clearer and more concrete, easier to understand, attract more learners stimulated them to observe, adjust the theory to reality that train them to do by themselves (Suliha, et al, 2001).

Health education affects on the female students knowledge, attitude and practice of hygiene during menstruation at boarding X Islamic boarding school (Pondok Pesantren) Darul Ulum Jombang. This research is inline with Widyaningrum's research (2015) which focused on the effect of hygiene during menstruation extension at MTS Negeri Gubuk Rubuh Gunungkidul Jogjakarta.

The effect of health education on the students behavior of personal hygiene during menstruation is in line Naganingrum (2015). She examined the influence of health education brainstorming and lectures (brace) on female students menstrual behavior in Islamic Junior High School Mambaul Ulum Gresik. Significant influence of health education on the behavior of personal hygiene practices during menstruation, because behavior is closely related to the level of knowledge in a person. The significance effect of health education on female students personal behavior during menstruation because the attitude relate to knowledge level. Someone behavior on certain object shows her or his knowledge about that (Walgitto, 2003).

Hence, it can be concluded that a better (respondents) female students understanding, knowledge in health education lead them to have a better attitude during menstruation. Meanwhile, the less knowledge of the female students have will lead them in worst attitude during menstruation. Furthermore, a better health knowledge will increase their health state.

CONCLUSION

The result of health education treatment gives a change on the female student behavior in their personal hygiene. In detail, their knowledge and attitudes are mostly involved in good category while practice is mostly in the medium category. In addition, the value of their knowledge about cleanliness of the eyes and ears, attitudes on hair hygiene and practice on the cleanliness of skin and ears are low. Meanwhile, the result of health education treatment gives a change on the female student behavior in hygiene during menstruation. The value of their knowledge is involved in a good category as well as attitudes and practices. However, the values of female students attitude in the statement regarding the menstrual cycle, the practice of how to washing the vagina, washing the sanitary napkins with clean running water, how to dispose of sanitary and washing wastes and ironing panties are low. Hence, it can be said that health education significantly affects the female student knowledge, attitude, and practice regarding personal hygiene. It also significantly affects their knowledge, attitude, and practice of hygiene during menstruation.

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