

Knowledge and Attitudes as Determinants of Behavior in Maintaining Personal Hygiene During Menstruation

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## ABSTRACT

Adolescents who have menstruated need to know about the body and reproductive organs, physical and psychological changes, so that they can protect themselves from risks that threaten the health and safety of the function of the reproductive organs. Neglect of reproductive health can cause infections of the reproductive organs and affect infertility or sterility. One of the risk factors for reproductive tract infections is poor menstrual hygiene. This research aimed to analyze the relationship between knowledge and attitudes and the behavior of maintaining personal hygiene during menstruation among Class XI students at SMKS Lakipadada. This research was a crosssectional study. The respondents were 53 female students at the Lakipadada Vocational School from class XI, consisting of nursing majors = 21 people, TKJ majors = 17 people, pharmacy majors = 15 people, selected using total population sampling. All variables were measured through filling out a questionnaire. The collected data was analyzed using Chi-square test. The p-value for the correlation analysis between knowledge and behavior was 0.000, so it was interpreted that knowledge was correlated with behavior in maintaining personal hygiene during menstruation. The same result (p = 0.000) was obtained from the results of the correlation analysis between attitude and behavior, so it was interpreted that attitude was correlated with the behavior of maintaining personal hygiene during menstruation. Based on the research results, it could be concluded that there is a relationship between knowledge and attitudes and the behavior of maintaining personal hygiene during menstruation in class XI female students at SMKS Lakipadada, Tana Toraja.

Keywords: menstruation; female student; personal hygiene; knowledge; attitude; behavior

# **INTRODUCTION**

During adolescence there is rapid growth and development, both physically, psychologically and intellectually. Teenagers have great curiosity, like adventure and challenges and tend to dare to take risks in their actions without prior careful consideration. During this period, changes also occur in the female reproductive system. The reproductive organs undergo dramatic changes during puberty. At this time, the growth of primordial ovarian follicles begins which secrete the hormone estrogen, which is the most important hormone in women. The release of this hormone produces secondary sexual signs, one of which is the occurrence of menstrual blood.<sup>(1)</sup>

Menstruation is a natural process experienced by every normal woman. The first menstruation (menarche) usually occurs at the age of 10-13 years. However, due to the influence of various factors, such as nutrition and the social environment, the age of first menstruation can occur earlier, for example 9 years. At this time, typical female hormones, estrogen and progesterone, increase very rapidly. This hormone has a main function in the reproductive system to order the brain to make various changes, such as when to start and when to stop menstruation.<sup>(2)</sup>

Adolescents who have menstruated need to know about the body and reproductive organs, physical and psychological changes, so that they can protect themselves from risks that threaten the health and safety of the function of the reproductive organs. Neglect of reproductive health can cause infections of the reproductive organs and affect infertility or sterility. One of the risk factors for reproductive tract infections is poor menstrual hygiene.<sup>(3)</sup>

Reproductive organs are tools in the body that function in the process of human life in producing offspring for the sake of preserving life or reproduction. In general, the female reproductive organs consist of two parts, namely the genitals or external genitalia and the internal genitalia. The external genital organs consist of the vulva, mons pubis, labia majora, labia minora, clitoris, vestibule, bulbus vestibuli, vaginal introitus and perineum. Meanwhile,

the genital organs inside the vagina or genital canal, uterus, fallopian tubes and uterus. Evaluation of women's reproductive function is more complicated than men's.<sup>(4)</sup>

In early adulthood, there is a maturation process of growth and development both physically and psychologically, one of which is the reproductive organs, which is further related to reproductive health. Reproductive health at this stage is very important because it influences aspects of life that are closely related to fertility levels, one of which is the menstrual cycle.<sup>(3)</sup>

Research concluded that personal hygiene behavior during menstruation of female students at SMA Magelang was in the sufficient category, namely 54.8%.<sup>(5)</sup> However, other research reported different things, namely that out of 148 respondents, female students who had poor personal hygiene behavior during menstruation were 79.1%, 58.8% had less knowledge and female students who did not receive information about personal hygiene. during menstruation was 64.9%, and there was a relationship between knowledge and sources of information and personal hygiene behavior during menstruation. The results of previous research state that teenagers' knowledge can influence personal hygiene behavior. Knowledge is very important because it can improve health status.

Alfi, et al.<sup>(5)</sup> reported that the majority of teenagers practice positive personal hygiene (51.6%). Regarding daily clothing cleanliness, 219 students (63.8%) practiced good personal hygiene behavior during menstruation. Regarding genital hygiene, 222 students (64.7%) behaved positively in practicing personal hygiene behavior during menstruation. Regarding the use of sanitary napkins, 202 female students (58.9%) carried out positive behavior in personal hygiene practices during menstruation. Other researchers who wish to conduct the same study should be able to include other variables that can influence personal hygiene practices during menstruation and carry out interventions with the aim of improving personal hygiene behavior in adolescents during menstruation.

Adolescence is the phase between childhood and adulthood in the age range between 10 and 19 years.<sup>(1)</sup> Meanwhile, according to the Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2018, teenagers are residents in the age range of 10 to 18 years.<sup>(1)</sup> Meanwhile, according to the BKKBN, the age range for teenagers is 10 to 24 years and unmarried. So it can be concluded that adolescence is a transition period from childhood to adulthood.<sup>(1)</sup>

The number of teenagers in the world is 1.2 billion or 18% of the world's population. Meanwhile in Indonesia in 2022, the population aged 10-14 years will be 22094.4 people, the population aged 15-19 years will be 22163.5 people and the population aged 20-24 years will be 22490.4 people.<sup>(6)</sup>

In South Sulawesi Province in 2022, the population aged 10-14 years will be 770,958 people, the number of people aged 15-19 years will be 820,695 people and the number of people aged 15-24 years will be 806,420 people. Meanwhile, in 2023, the population in South Sulawesi Province aged 10-14 years will be 745,835 people, the number of residents aged 15-19 years will be 803,028 people.<sup>(7)</sup>

According to the Central Statistics Agency (BPS) of Tana Toraja Regency, in 2022 the population aged 10-14 years will be 25,721 people, consisting of 12,378 women and 13,343 men. The total population aged 15-19 years is 30,685 people, consisting of 14,663 women and 16,022 men. The total population aged 20-24 years is 28,055 people, consisting of 13,671 women and 14,384 men. Meanwhile, in 2023, the population aged 10-14 years will be 25,158 people, consisting of 12,133 women and 13,025 men. The total population aged 15-19 years is 31,044 people, consisting of 14,818 women and 16,226 men. The total population aged 20-24 years is 28,387 people, consisting of 13,816 women and 14,571 men.<sup>(8)</sup>

A preliminary survey at Lakipadada Vocational School showed that the number of class XI female students was 53 people, consisting of nursing majors = 21 people, TKJ majors = 17 people, pharmacy majors = 15 people. From the results of interviews with 10 female students, only 3 female students knew about reproductive health, as well as implementing good personal hygiene during menstruation, namely using sanitary napkins for a long time, using underwear that does not absorb sweat, and cleanliness of genitalia. The female students interviewed only changed their sanitary napkins once a day, even though they should be changed properly and correctly, namely every 3 to 4 hours, to avoid odors, increase comfort and prevent infections in the reproductive organs, and usually use water from the toilet tank in the area. school toilets to clean reproductive organs after urinating and defecating.

Based on this background, research is needed which aims to analyze the relationship between knowledge and attitudes and the behavior of maintaining personal hygiene during menstruation among Class XI students at SMKS Lakipadada.

#### **METHODS**

This research was carried out at Lakipadada Vocational School which is located at Jalan Starda Baru Number 11 Pantan Makale, Pantan Village, Makale District, Tana Toraja Regency, South Sulawesi, from July to August 2023. This research is an observational analytical study with a cross-sectional design, where all data on all independent and dependent variables is collected at the same time.<sup>(9,10)</sup> The population of this study was 53 female



The independent variables in this study are knowledge about personal hygiene during menstruation and attitudes towards personal hygiene during menstruation. Meanwhile, the dependent variable is the behavior of maintaining personal hygiene during menstruation. Knowledge includes everything that female students know about personal hygiene during menstruation, including understanding, how to maintain personal hygiene and the consequences. Attitude includes views or

female students' assessment of personal hygiene during menstruation. Meanwhile, the behavior of maintaining personal hygiene during menstruation includes all actions or activities carried out to maintain personal hygiene during menstruation, including cleaning reproductive organs, using sanitary napkins, wearing underwear. These three variables are measured through filling out a questionnaire. The data that has been collected is then processed through stages: 1) editing, namely checking the completeness of filling in the questionnaire and completing missing data, 2) coding, namely giving symbols to all answers to facilitate further data processing, 3) processing, namely entering research data or answers. from each respondent in computer "software", 4) tabulating, namely entering data into a table so that it is ready to be analyzed quantitatively, 5) cleaning which is carried out when all data for each data source or respondent has been entered, it needs to be checked again to see there may be code errors, then corrections or corrections to the data are made. The collected data was analyzed descriptively in the form of frequencies and proportions.<sup>(11-13)</sup> Next, hypothesis testing was carried out using the Chi-square test.<sup>(14)</sup>

In conducting research, researchers consider it necessary to provide recommendations from the institution by submitting a request for permission to the agency where the research is conducted, in this case submitting it to the principal of the school concerned. After obtaining approval, the research is carried out by emphasizing research ethics issues including: 1) Informed consent, namely giving a consent form to the respondent, which contains an explanation of the aims and objectives of the research being carried out, as well as explaining the benefits that will be obtained if you are willing to become a respondent, which aims to they know the impact that will occur during data collection. If the subject is willing to become a respondent, they must sign a consent form. 2) Anonymity which is intended to maintain the confidentiality of the respondent's identity, the researcher does not include the respondent's name but only a certain number or code on the data collection sheet filled in by the respondent so that the respondent's identity is not known to the public. 3) Confidentiality, namely ensuring that information about respondents is guaranteed confidential and only certain groups of data are reported. 4) Upholding writing and publication ethics such as avoiding plagiarism, conflicts of interest and so on.<sup>(15)</sup>

# RESULTS

Table 1 shows that the largest age distribution for female students was 14 years. Table 2 shows that the proportion of poor level of knowledge was high (43.4%), the proportion of negative category of attitude was high (26.4%), while the proportion of poor category of behavior was high 28.3%.

Age (years)	Frequency	Percentage
15	8	15.1
16	31	58.5
17	9	17.0
18	4	7.5
19	1	1.9

Table 1. Distribution of age of respond	ents
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Table 2. Distr	ibution of kı	nowledge, a	attitude and	l behavior
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Variable	Frequency	Percentage
Knowledge		
Poor	23	43.4
Good	30	56.6
Attitude		
Negative	14	26.4
Positive	39	73.6
Behavior		
Poor	15	28.3
Good	38	71.7



Table 3 shows that the p-value for the correlation analysis between knowledge and behavior was 0.000, so it was interpreted that knowledge was correlated with behavior in maintaining personal hygiene during menstruation. The same result (p = 0.000) was obtained from the results of the correlation analysis between attitude and behavior, so it was interpreted that attitude was correlated with the behavior of maintaining personal hygiene during menstruation (Table 4).

Behavior				p-value	
Knowledge	Less		Good		
	Frequency	Percentage	Frequency	Percentage	
Less	13	56.5	10	43.5	0.000
Good	2	6.7	28	93.3	0.000

# Table 3. Correlation between knowledge with behavior

#### Table 4. Correlation between attitude with behavior

Behavior					p-value
Attitude	Less		Good		
	Frequency	Percentage	Frequency	Percentage	
Negative	11	78.6	3	21.4	0.000
Positive	4	20.5	35	79.5	0.000

# DISCUSSION

Based on the results of this research, it can be explained that the proportion of poor level of knowledge was high (43.4%). Most female students do not properly understand the importance of washing their hands first before washing their vulva and vagina. Female students also do not understand that it is best to change sanitary napkins 4 to 5 times a day so that germs do not easily reproduce and infect the reproductive organs. Female students also do not understand properly how to wash their vulva and vagina correctly, namely from front to back. Most female students wash their vulvas and vaginas from back to front and also do not have a good understanding of the diseases that can arise due to improper use of sanitary napkins.

Hygiene during menstruation is important in determining the health of a teenager's reproductive organs and is a component of vulva hygiene which plays an important role in a person's health behavior status, including avoiding interference with the function of the reproductive organs. During menstruation, the blood vessels in the uterus become infected very easily. Therefore, female students must be better at maintaining personal hygiene, especially to avoid infections of the reproductive organs.<sup>(3)</sup>

The researcher believes that it is very important for young women to have knowledge about maintaining personal hygiene during menstruation, because this knowledge can be the basis for them to take good action in maintaining personal hygiene during menstruation.

The proportion of negative category of attitude was high (26.4%). There are still many teenagers who do not support the health of their reproductive organs during menstruation. This can be caused by several factors such as experience, the influence of other people who are considered important, the influence of culture, mass media, educational institutions, and emotional factors.<sup>(16)</sup>

The proportion of poor category of behavior was high 28.3%. There are still high problems with female students' behavior in maintaining personal hygiene during menstruation, manifested in the behavior of not washing hands before touching the vulva and vagina, not changing underwear during menstruation, not shaving part of the pubic hair to avoid excessive moisture in the vaginal area and not going to services. health if you experience health problems during menstruation. According to Kissanti,<sup>(17)</sup> the behavior of maintaining the health of reproductive organs in women begins with maintaining the cleanliness of the female organs. To maintain vaginal cleanliness, what you need to do is regularly wash the vulva carefully using only clean water or using mild soap. The most important thing is to clean the traces of sweat and bacteria around the vulva. To collect menstrual blood, sanitary napkins need to be changed about 4 to 5 times a day to avoid bacteria entering the vagina. If women's personal hygiene during menstruation is not maintained properly during menstruation, it can trigger the growth of fungus or the rapid development of bacteria which can cause several problems such as vaginal discharge, itching and other skin diseases.

Researchers believe that adolescent behavior in maintaining reproductive hygiene is a very important thing for every woman to do, especially during menstruation. Maintaining good reproductive hygiene can improve personal health, especially in reproductive health efforts. Parents, especially mothers, are expected to be able to provide correct information about menstruation. If you know the correct information about menstruation, teenage girls will be better prepared when they get their first menstruation.

The results of this study show that there is a significant relationship between knowledge and female students' behavior in maintaining personal hygiene during menstruation. Respondents who have good knowledge will also have good behavior in maintaining personal hygiene. The better a student's knowledge, the easier it will be to respond to all the information they receive. Apart from that, the more information female students receive about personal hygiene, the better the response of young women in maintaining the health of reproductive organs during menstruation and knowing the dangers of not maintaining personal hygiene during menstruation.

Although the results of this study also show that the majority of female students have good knowledge, there are still many female students who are unable to maintain personal hygiene. This can happen because the process of a person's behavior is a long process.

Knowledge is the result of remembering something, including remembering events that have been experienced, either intentionally or unintentionally, and this is done after someone makes contact with or observes a particular object. Knowledge that is based on knowledge will be more lasting than behavior that is not based on knowledge.<sup>(18)</sup> The results of this research are in line with the findings of Permata (2019) which concluded that there was a relationship between knowledge of young women and vulva hygiene behavior during menstruation at SMP Negeri 1 Pulau Beringin, South Ogan Komering Ulu Regency.

The results of this study show that there is a relationship between attitudes and behavior of female students in maintaining personal hygiene during menstruation. Most respondents who have a positive attitude have good behavior in maintaining personal hygiene during menstruation, and vice versa. The students of Lakipadada Vocational School have been taught to get used to living a clean and healthy lifestyle, especially in maintaining personal hygiene during full responsibility for their health condition. Students have received guidance from teachers and health workers on how to properly care for reproductive organs during menstruation.

Female students who have a good attitude in maintaining personal hygiene during menstruation will have a higher sense of responsibility for the health of their reproductive organs by always maintaining the cleanliness of the feminine area during menstruation, such as always changing sanitary napkins, using clothes that are clean and absorb sweat, and cleaning the feminine area properly. use clean water. By always maintaining the cleanliness of the reproductive organs, it is hoped that various kinds of bacteria will be avoided which can cause diseases of the female organs such as vaginal discharge. Similar findings were reported by Permata (2019) that there was a relationship between the attitudes of adolescent girls and vulva hygiene behavior during menstruation at SMP Negeri 1 Beringin Island, South Ogan Komering Ulu Regency.

It is hoped that this research can provide input to health workers, especially nurses, to provide or carry out more outreach and health education activities regarding how to maintain personal hygiene during menstruation at school so that female students can improve their behavior in maintaining personal hygiene.

# CONCLUSION

Based on the research results, it can be concluded that there is a relationship between knowledge and attitudes and the behavior of maintaining personal hygiene during menstruation in class XI female students at SMKS Lakipadada, Tana Toraja.

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