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## The Relationship between Knowledge and Attitudes with Menstrual Hygiene Measures

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**Abstract:** The purpose of this study was to determine the relationship between knowledge and attitudes with *menstrual hygiene practices among female students at SMP Negeri 10 Padang in 2016. This study used an analytic research design with a cross-sectional approach with a sample of 98 class VII students who had experienced menstruation. Data were analyzed using the Chi-Square test with  $p < 0.05$ . The results showed that less than half of the respondents (42.9%) had sufficient knowledge about menstrual hygiene, more than half of the respondents (54.1%) had positive attitudes towards menstrual hygiene and more than half of the respondents (84.7%) had menstrual hygiene measures in the sufficient category. There is a significant relationship between knowledge and menstrual hygiene practices ( $p = 0.017$ ) and there is a significant relationship between attitudes and menstrual hygiene practices ( $p = 0.021$ ).*

**Keyword:** Knowledge, Attitude, Action, Menstrual Hygiene .

### INTRODUCTION

*Menstrual hygiene* is a component of individual *hygiene* in the form of actions to maintain the health and cleanliness of the reproductive organs during menstruation (Indriastuti, 2009). Efforts to maintain the cleanliness of the reproductive organs are by washing the genitals from the front (vagina) to the back (anus), drying the vagina with a clean towel or tissue, not using soap to clean the vagina, not using powder in the vaginal area, cutting pubic hair, washing hands with soap before and after touching the vagina, changing underwear at least 2 times a day, using cotton underwear, not wearing sanitary pads for more than 6 hours and using ready-to-use sanitary pads (Prayitno, 2014). *Menstrual hygiene* is important in the health of the reproductive organs, with good *hygiene behavior*, a young girl will avoid microorganisms such as bacteria, fungi and viruses that can interfere with the function of the reproductive organs (Indriastuti, 2009).

incorrect *menstrual hygiene* behavior such as the study conducted by Ahmed (2008) in Bangladesh reported that as many as 90% of young women use cloth during menstruation to absorb menstrual blood. Research by Khan (2012) in India shows that 72.05% of young women use pieces of cloth used as sanitary pads. This action is avoided because when care

for cloth sanitary pads is not good, such as drying them in a hidden place and not exposed to sunlight where there is a risk of growing microbes that cause vaginal odors (Ali, 2007).

In the same study by Khan, it was found that 57.7% of teenagers changed pads 2 times per day. This action is avoided because it causes bacteria to easily develop on pads so that it can cause infection in the reproductive organs (Andira, 2010). Another wrong measure of *menstrual hygiene* is that in a study conducted by Thakre (2011) in Nagpur, it was found that 58.18% of teenage girls used bath soap to clean their external genital organs. Research by Rahmatika (2010) in Medan showed that as many as 60.9% of young women cleaned their genitals using feminine hygiene fluids. This action is avoided because naturally the vagina already has a defense mechanism to maintain its acidity, namely the presence of *Doderlein Basil* which lives in the vagina and functions to produce acid which is able to prevent bacteria from entering the vagina. Frequent use of soap will kill the good bacteria and can trigger the proliferation of bad bacteria that can cause infection.

*Menstrual hygiene* behavior in women is very important, especially in increasing susceptibility to Reproductive Tract Infections (UTI) (Banerjee, 2007). In addition, poor *hygiene* in maintaining menstrual hygiene can trigger infections that cause vaginal discharge (Widiyastuti, 2014) and can also cause vaginal itching (*pruritus vulvae*) (Wolff, 2009).

Behavior during menstruation depends on awareness and knowledge about *menstrual hygiene*. This is an important aspect of health education for adolescents because initial knowledge about menstrual hygiene is a determinant of adolescent health as adults (Anuradha, 2013). Knowledge of reproductive health maintenance in adolescents must be considered since *menarche* which is the beginning of the reproductive process (Health Research and Development Agency, 2010). However, reproductive health is still taboo to be discussed by adolescents. As a result, adolescents lack understanding, lack understanding and sometimes make wrong decisions regarding reproductive health (Suryati, 2012).

In its development, the theory of behavior by Benjamin Bloom (1908) quoted in Notoatmodjo (2007) is divided into 3 (three) domains, namely knowledge, attitudes and actions. Azwar (2003) states that a person's knowledge of something will affect his attitude. This attitude is positive or negative depending on the individual's understanding of that matter. When an individual has a positive attitude, it will encourage the individual to carry out certain behaviors when needed. However, if the attitude is negative it will avoid doing the behavior.

The results of research regarding knowledge of *menstrual hygiene* vary, as in a study by Anusree (2014) in India, that more than 50% of young women have poor knowledge of menstrual hygiene. Research conducted by Lianawati (2012) in Surakarta, as many as 66.67% of female adolescents had a sufficient level of knowledge regarding menstrual *hygiene*. Research by Luthfiana (2014) in Semarang found that 68.3% of young women had good knowledge of menstrual *hygiene*. Meanwhile, the results of research on *menstrual hygiene attitudes* were consistent, where in a study by Husna (2015) in Padang as many as 58.8% of female adolescents had a positive attitude regarding *personal hygiene* during menstruation. Research by Rahmatika (2010) in Medan found that 85.1% of young women had a positive attitude about menstrual *hygiene*.

Research showing the relationship between knowledge and *menstrual hygiene practices* obtained different results, as in the same study by Luthfiana, it was found that as many as 65.9% of respondents had good knowledge of good *hygiene behavior during menstruation*. Another study by Yanti (2014) in Kuantan Singingi, Riau found that 55% of young women with high knowledge had positive hygienic behavior during menstruation. Meanwhile, research conducted by Puspitaningrum (2012) in Semarang found that as many as 78.5% of respondents had less knowledge with less practice in caring for external genital organs during menstruation.

The results of the study showing the relationship between attitudes and *menstrual hygiene* measures also varied, such as research conducted by Rahmatika (2010) in Medan, which found that 52.7% of respondents had a good attitude towards good behavior during menstruation and showed a relationship between the two. Meanwhile, research by Handayani (2011) in Jakarta found that as many as 50% of adolescents had less attitude and had less behavior in cleaning external organs during menstruation.

Preliminary study conducted by researchers on February 15 2016 at SMP Negeri 10 Padang. Interviews were conducted by researchers to 10 female students. The results of interviews regarding knowledge of *menstrual hygiene*, it was found that all students did not understand the meaning of *menstrual hygiene*. All female students know the benefits of washing hands before cleaning the genitals, but only 2 students do it. As many as 8 people said that cleaning the genitals had to use soap to keep the genitals clean. Only 2 female students dried their reproductive organs using the *tissue*. Of the 10 people who know that changing pads should be as often as possible, 6 of them change pads 2 times a day during menstruation.

Based on the description above, the researcher's desire arose to conduct research on the relationship of knowledge and attitudes with *menstrual hygiene measures* in SMP Negeri 10 Padang students.

## METHOD

This study used an analytic research design with a *cross sectional approach*. This study aims to find the relationship between the independent variables, namely knowledge and attitudes of *menstrual hygiene* and the dependent variable, namely *menstrual hygiene practices* in female students of SMP Negeri 10 Padang.

Univariate analysis aims to describe the condition of the variables discussed, after the data is collected then the data is processed using a computerized system. The results of this univariate analysis present the data in the form of a frequency distribution table for each variable. Among them are the independent variables ( *independent* ) namely knowledge and attitude of *menstrual hygiene*. The dependent variable ( *dependent* ) is *menstrual hygiene measures*.

The measurement result of knowledge is good if the total score is  $>75\%$ , enough if the total is  $56\%-75\%$ , less if the total score is  $<56\%$ . The results of measuring attitudes are positive if the total score is  $\geq 31$  and negative if the total score is  $< 31$ . The results of measuring actions are good if the total score is  $> 75\%$ , sufficient if the total score is  $56\% - 75\%$ , less if the total score is  $<56\%$ .

Bivariate analysis was conducted to see the relationship between the independent variables (knowledge and attitudes of *menstrual hygiene*) and the dependent variable ( *menstrual hygiene measures* ) with the *Chi-Square test* using a 95% degree of confidence. If  $p < 0.05$  means the statistical calculation is significant (significant).

## RESULTS AND DISCUSSION

### Knowledge of *Menstrual Hygiene* in SMP Negeri 10 Padang Students

The description of the research results revealed that of the 98 respondents who had good knowledge, 32.7% of respondents, 42.9% had sufficient knowledge and 24.5% of respondents had insufficient knowledge. This shows that most respondents' knowledge about *menstrual hygiene* is in the sufficient category. Knowledge is the result of "knowing" and this occurs after people sense a certain object. Know can be interpreted as remembering a material that has been studied before. To measure that someone knows about what is learned, such as defining, stating, and so on (Notoatmodjo, 2007). This is related to knowledge about *menstrual hygiene*. Someone can define *menstrual hygiene*, know the benefits of *menstrual*

*hygiene* and how to take care of the reproductive organs after they learn and remember about *menstrual hygiene*.

The results of this study indicate that less than half (32.7%) of respondents have a good level of knowledge about *menstrual hygiene*. The good knowledge of the respondents was illustrated by the respondents' answers where more than half of the respondents knew the meaning and benefits of *menstrual hygiene*, namely actions to maintain the health and cleanliness of the genitals during menstruation to avoid infectious diseases caused by bacteria, fungi, viruses and parasites. In addition, more than half of the respondents knew what to do before washing their genitals, namely washing their hands first. This is done with the aim of eliminating germs and bacteria that stick to the hands, fingers and nails.

The results of this study also showed that less than half (42.9%) of the respondents had sufficient knowledge about *menstrual hygiene*. This can be illustrated that more than half of the respondents know the proper way to clean female genitalia, namely from the front (vagina) to the back (anus). This method is done to avoid bacteria that are around the anus from being carried into the vagina so as not to cause infection. However, the respondent's answer to the sufficient category of respondents illustrates that the respondent does not know the consequences of using soap in the vaginal area. It can be seen that more than half of the respondents think that washing the genitals must use soap and do not know what will happen if the genitals are washed with soap. Naturally, the vagina already has a defense mechanism to maintain its acidity, namely the presence of *doderlin germs* that live in the vagina and function to produce acid which is able to prevent bacteria from entering the vagina. Frequent use of soap will kill the good bacteria and can trigger the proliferation of bad bacteria which can cause infection (Prayitno, 2014).

The results of this study indicate that there is still less knowledge of respondents in the less category, namely as much as 24.5%. This can be seen from the questions regarding the use of underwear during menstruation and the use of powder in the genital area, where more than half of the respondents answered incorrectly. The use of powder on the calamine area will have a bad impact because the powder can enter the vagina which can cause various kinds of diseases. Then, it is recommended to use cotton underwear because cotton underwear is useful for preventing moisture in the genital area.

Research by Rahman (2014) regarding factors related to *hygiene behavior* during menstruation at SMP Muhammadiyah 5 Yogyakarta in 2014 also shows that most respondents' knowledge is in the sufficient category. Knowledge can be influenced by several factors, namely education, age, interests, experience, culture, surrounding environment, and information (Mubarak, 2007). Respondents' knowledge was obtained from their own experiences and the experiences of others. In this study, more than half (68.4%) of respondents had an age difference between the age of *menarche* and the age at which data was collected, which was 1 year. Within a span of 1 year, respondents had gained experience regarding *menstrual hygiene* both from their own experience and that of others. The better the experience the respondent gets about *menstrual hygiene*, the better the knowledge the respondent has.

### **Attitudes of *Menstrual Hygiene* to Students of SMP Negeri 10 Padang**

The description of the results of this study found that as many as 54.1% of respondents had a positive attitude and as much as 45.9% of respondents had a negative attitude. This shows that the attitudes of female students *regarding menstrual hygiene* are mostly in the positive category. This positive attitude is reflected in the answers of the respondents in which more than half of the respondents agreed to cut their pubic hair regularly, change their underwear at least 2 times a day and change their pads every 6 hours. In this study, there were still female students who had negative attitudes in which more than half of the respondents

agreed to wash their genitals from the back (anus) to the front (vagina) and wash them with soap with the aim of keeping the genitals clean.

Research by Husna (2015) regarding *personal hygiene behavior* during menstruation in Padang MTsN students obtained the most results in the positive category. Attitude is a closed response and is not something that has been done. This closed response arose from the respondents' beliefs about *menstrual hygiene*. Knowledge plays an important role in determining attitudes (Notoatmodjo, 2003). This is in accordance with the opinion of Azwar (2003) which states that a person's knowledge of something will affect his attitude. So, the better the knowledge of *menstrual hygiene* the respondent gets, the better the attitude of the respondent regarding *menstrual hygiene*.

### **Measures of Menstrual Hygiene in SMP Negeri 10 Padang Students**

The description of the action on *menstrual hygiene* showed that 11.2% of respondents had good action, 84.7% of respondents were in the sufficient category and 4.1% of respondents had less action. This shows that the most student actions are in the sufficient category. Actions can be in the form of movements or actions from the body after receiving stimulation or adaptation from inside or outside the body to an environment. There are three factors that can influence the action. First, predisposing factors such as knowledge, attitudes, beliefs, and values, with regard to one's motivation to act. Second, behavioral supporting factors such as facilities, infrastructure or facilities that facilitate the occurrence of a person's behavior, and finally reinforcing factors such as family, health workers and others. (Notoatmodjo, 2007).

In the moderate category in this study there were good practices where more than half of the respondents had never used powder in the genital area, always changed their underwear at least 2 times per day and replaced the pads when they were full of blood. In addition to good actions, respondents in the moderate category still showed bad behavior where more than half of the respondents sometimes changed sanitary pads when they were full of blood, used sanitary pads and used sanitary pads for less than a *month*. from 6 hours.

When using pads, they must be changed every 6 hours and when the pads are full of blood. This is done because sanitary pads can store bacteria if used for too long (Prayitno, 2014). In addition, the use of ready-to-use *sanitary pads* is more recommended and not cloth sanitary pads, because it is feared that these sanitary pads are less *hygienic* due to poor maintenance, such as drying them in a hidden place and not exposed to sunlight which risks the growth of microbes or larvae that cause vaginal odor (Ali, 2009).

The results of this study indicate that as many as 11.2% of respondents have good actions and 4.1% of respondents have poor actions. Research conducted by Dolang (2012) regarding factors related to *menstrual hygiene practices* found that there was a relationship between action and mother's education level, knowledge, role of mass media and socioeconomic status. *Menstrual hygiene* actions can be influenced by knowledge. Good knowledge will encourage someone to take good actions so that it is beneficial for himself and vice versa. In addition, the role of the mass media as a source of information can also influence *menstrual hygiene measures*. This is because the mass media is the easiest tool to reach. In accordance with Egong's research (2005) which looked at the relationship between sources of information from the mass media and *menstrual hygiene practices*. Egong's research study concluded that the more frequently respondents received information, the better their *menstrual hygiene would be*.

### **The Relationship between Knowledge and Menstrual Hygiene Actions in Padang 10 Public Middle School Students**

The most significant result in this study was that of the 42 respondents who had sufficient knowledge, more than half (88.1%) had sufficient action. Statistical test results

obtained by calculating *Chi-Square*  $p = 0.017$  ( $p < 0.05$ ) which means that there is a significant relationship between knowledge and *menstrual hygiene measures*. Another study by Luthfiana (2014) concerning the relationship between knowledge and *personal hygiene behavior* during menstruation showed that girls with good knowledge with good behavior were 65.9%, sufficient knowledge with sufficient behavior was 70.6% and less knowledge with sufficient behavior as much as 50% with the result that there is a relationship between knowledge and *personal hygiene behavior* during menstruation ( $p = 0.002$ ).

Knowledge is a very important domain in the formation of one's actions, actions based on knowledge will be more lasting than those without knowledge (BKKBN, 2003). Notoatmodjo (2007) suggests that knowledge occurs after people sense a particular object. At the time of sensing to produce knowledge is strongly influenced by the intensity of attention and perception of the object. According to Mubarak (2007), the factors that influence knowledge are information. As the results of research conducted by Thakre (2011) stated that *menstrual hygiene measures* were influenced by information obtained from mothers, relatives, friends and other sources.

Based on the results of this study, the respondent's knowledge can be influenced by the respondent's ability to sense information or learn about *menstrual hygiene*. Good sensing will increase understanding of information about *menstrual hygiene so that menstrual hygiene measures* can be carried out properly as well. Information about *menstrual hygiene* can be obtained by respondents from mothers, siblings, friends and other sources. Knowledge possessed by a person allows that person to do things that are beneficial to himself from the information he gets.

### **Relationship between Attitudes and *Menstrual Hygiene Actions* in Padang 10 Public Middle School Students**

The most significant result in this study was that of the 45 respondents who had a negative attitude, more than half (91.1%) had sufficient action. Statistical test results obtained by calculating *Chi-Square*  $p = 0.021$  ( $p < 0.05$ ) which means that there is a significant relationship between attitudes and *menstrual hygiene measures*. Research conducted by Rahmatika (2010) found that 57.3% of respondents had a good attitude with moderate action and 92.3% of respondents had a moderate attitude with moderate action and there was a relationship between attitude and action with a value of  $p = 0.003$ .

*menstrual hygiene measures* are things that are known and understood by respondents about *menstrual hygiene*, which are responded indirectly either positively or negatively (Azwar, 2003). *Menstrual hygiene* attitudes are strengthened by the success experiences of other people such as parents, relatives and friends in carrying out *menstrual hygiene* so as to manifest real action in doing so (Thakre, 2011). When respondents respond positively to *menstrual hygiene experiences*, *good menstrual hygiene practices will be realized*. Vice versa, if the respondent responds negatively to the experience of *menstrual hygiene*, *then the respondent tends to avoid this action so as to manifest a bad action*.

### **CONCLUSION**

Based on research conducted at SMP Negeri 10 Padang, it can be concluded that: 1. Less than half (42.9%) of grade VII students at SMP Negeri 10 Padang have an adequate level of knowledge about *menstrual hygiene*. 2. More than half (54.1%) of grade VII students at SMP Negeri 10 Padang have a positive attitude about *menstrual hygiene*. 3. More than half (84.7%) of grade VII students of SMP Negeri 10 Padang have adequate measures regarding *menstrual hygiene*. 4. There is a significant relationship between knowledge and *menstrual hygiene practices* in SMP Negeri 10 Padang students with  $p = 0.017$  ( $< 0.05$ ). 5. There is a significant relationship between attitudes and *menstrual hygiene practices* in SMP Negeri 10 Padang students with a value of  $p = 0.021$  ( $< 0.05$ ).

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