

**CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE TOWARD PERSONAL
MENSTRUAL HYGIENE PRACTICE AMONG ADOLESCENTS**
*Hubungan Pengetahuan dan Sikap dengan Tindakan Personal Hygiene Menstruasi pada Siswi
SDN Kertajaya Kota Surabaya*

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ARTICLE INFO

Article History:

Received:

July, 17th, 2019

Revised:

From October, 27th,
2019

Accepted:

November, 6th, 2019

Published online:

March, 4th, 2021

ABSTRACT

Background: At present, there has been a shift in the age of a girl experiencing menstruation for the first time or early menarche. This phenomenon should be followed by adolescent readiness both psychologically and with adequate knowledge. The health impact was that one in four women reported problems with itching or pain in the area of their genitals, and 9% expressed pain when urinating during menstruation due to prolonged use of pads. **Purpose:** This study aimed to assess the correlation between knowledge level and attitude toward personal menstrual hygiene practice among girl students of Kertajaya Elementary School, Surabaya. The study used a quantitative method with a cross-sectional design. Respondents were calculated with the total sampling method and obtained 78 respondents. Data were collected by observation, questionnaires, and interviews. The chi-square test was undertaken to analyzed data with $\alpha = 0.05$. **Results:** Based on this study obtained 66.7% of respondents have good knowledge, 60.3% percent of respondents have a good attitude, and 79.5% of respondents have good practice. The significant value of the probability level of knowledge with menstrual personal hygiene measures was sig-r (0.001) and the knowledge level with menstrual personal hygiene measures was sig-r (0.037). **Conclusion:** There was a correlation between knowledge level and attitude towards personal hygiene menstruation practice among girl students of Kertajaya Elementary School, Surabaya, Indonesia.

Keywords: knowledge, attitude, practice, personal menstrual hygiene

ABSTRAK

Latar Belakang: Saat ini telah terjadi pergeseran usia seorang remaja putri mengalami menstruasi untuk pertama kali atau menarche dini. Hal ini sebaiknya diimbangi dengan kesiapan remaja baik secara psikologis maupun pengetahuan yang memadai. Dampak kesehatan yang ditemukan yaitu satu dari empat perempuan mengalami gatal atau sakit di sekitar area kemaluannya dan 9% merasakan nyeri saat buang air kecil ketika menstruasi yang disebabkan terlalu lama menggunakan pembalut. **Tujuan:** Penelitian ini bertujuan untuk mengetahui hubungan tingkat pengetahuan dan sikap terhadap tindakan personal hygiene menstruasi pada siswi SDN Kertajaya Kota Surabaya **Metode:** Penelitian ini adalah studi kuantitatif dengan desain cross-sectional. Pengambilan sampel pada penelitian menggunakan metode total sampling dan diperoleh jumlah responden sebanyak 78 orang. Data dikumpulkan dengan cara observasi, kuesioner, dan wawancara. Data dianalisis menggunakan uji chi-square dengan $\alpha = 0,05$. **Hasil:** Berdasarkan hasil penelitian diketahui 66,7% responden memiliki pengetahuan yang baik, 60,3% persen responden memiliki sikap baik dan 79,5% responden memiliki tindakan baik. Nilai signifikan probabilitas tingkat pengetahuan dengan tindakan personal hygiene menstruasi adalah sig-p (0,001) dan serta tingkat pengetahuan dengan tindakan personal hygiene menstruasi adalah sig-p (0,037). **Kesimpulan:** Kesimpulan dari penelitian ini, ada hubungan antara tingkat pengetahuan dan sikap terhadap tindakan personal hygiene menstruasi pada siswi SDN Kertajaya Kota Surabaya.

Kata kunci: pengetahuan, sikap, tindakan, personal hygiene menstruasi

INTRODUCTION

Adolescence or puberty is a period when a person experiences some physical changes as the body begins to develop from child to adult. Puberty is associated with rapid changes, physically along with the growth of the reproductive organs thus a person becomes capable of performing reproductive functions. The puberty signs in girls are signified with some features such as breast and hip development as well as voice changes. In this stage, they usually start to experience their first menstruation (period) (Kumalasari, 2012).

Menstruation is vaginal bleeding which is a natural process that occurs in a woman due to the shedding of uterine lining when the egg is unfertilized by a sperm cell. Menstruation lasts 2 to 7 days and usually takes place once in 28 days (Hastuti, 2019). Menstruation is a physiological process that firstly occurs in an adolescent female at the age of 9-12 years (Hall, 2010).

According to several study results in the last ten years, there was an alteration in menarche age to become younger. Today, the menarche age in a developing country is around 12-13 years. The decreasing age of menarche in Indonesia is 0.145 years per decade, resulting in Indonesia number 15 out of 67 countries ranks (Mutasya, 2016).

As the menarche age getting earlier, teenage girls should be ready and prepared both psychologically and in terms of knowledge. Because when the period occurs, the vessels in the uterus are dilated and more prone to infection. Therefore it is vital to keep the genitals clean during the period (Butarbutar, 2016). Personal menstrual hygiene is the practice of cleaning the genital properly and changing the sanitary pad every 3-4 hours. Poor personal menstrual hygiene during the period increases the risk of reproductive tract infections (RTIs). To practice personal menstrual hygiene well, a good knowledge of menstruation and menstrual hygiene management is necessary (Balqis, 2016).

Personal hygiene is an act of maintaining cleanliness in order to keep healthiness both physically and psychologically. If health status is perfectly maintained, holistic well-being will be obtained (Ernawati, 2012).

According to Menstrual Hygiene Management Research, one out of four women

experienced itching or pain in the pubic area, and 9% had painful urination during menstruation. These took place due to the use of a sanitary pad for too long since they could not change it at school. Meanwhile, the impact on education is learning participation and ability in school decreased as the result of illness, low concentration, and the fear of stained clothes from leaking menstrual blood (Indonesian Ministry of Education and Culture, 2017).

Behavior consists of three aspects: cognitive, affective, and conative (Wawan, 2011). Knowledge is an individual's belief or interpretation of something. Attitude is a closed response from someone to a stimulus that involves emotion. Attitude is a predisposition to action. Action is a manifestation or actual expression of behavior (Notoatmodjo, 2012). It can be concluded that the three aspects of behavior are related to one another.

Many teenage girls do not understand yet that menstruation is a normal biological process. They develop an understanding by the time of menarche or in their first period (Indonesian Ministry of Health, 2017). Only 1 out of 44 (2%) primary school students and 8 out of 31 (26%) Junior High School students knew about menstruation as a biological aspect, yet their knowledge was limited. Their insight about personal menstrual hygiene was mostly not under the recommended standards. Generally, students also did not understand what reproductive organs are and their correlation with menstrual personal hygiene (Hastuti, 2019).

Besides knowledge and attitudes related to menstrual personal hygiene, several external factors are affecting menstrual personal hygiene among students at school. Some of these factors are cultural values or myths, the availability of supporting personal menstrual hygiene sanitation infrastructure, availability of School's Health Clinic (UKS), access to information, and psychological support from people around (Hastuti, 2019).

According to Hastuti (2019), a good knowledge level of menstruation and personal menstrual hygiene was not a guarantee that students had good personal menstrual hygiene.

This study aimed to assess the correlation between the knowledge level and attitude toward personal menstrual hygiene

practice among girl students of Kertajaya Elementary School, Surabaya.

METHOD

This study used a quantitative method with a cross-sectional study design. This was analytical research to analyze the correlation between knowledge and attitude with personal menstrual hygiene among girl students of Kertajaya Elementary School, Surabaya.

This study population was active students at Kertajaya Elementary School in the 2018-2019 academic year with the inclusion criteria such as female, already experience menstruation, willing to be research respondents, and obtain clearance from parents to be involved in the research. The samples were obtained using the total sampling technique. The total sample was 78 teenage girl students.

The study was conducted in Kertajaya Elementary School, Surabaya. Data collection was conducted in May 2019.

The type of data used in this study were primary data and secondary data. Primary data included knowledge and attitude toward personal menstrual hygiene gathered from the results of filling out the questionnaire. While

secondary data was complementary data such as the Kertajaya Elementary School profile. The data collection instrument was a structured questionnaire developed by the researcher based on theoretical concepts and has been tested as valid and reliable.

Independent variables were knowledge level and attitude of girl students at Kertajaya Elementary School toward personal menstrual hygiene. Meanwhile, the dependent variable was personal menstrual hygiene practice among girl students of Kertajaya Elementary School, Surabaya.

The study employed univariate and bivariate analyses. Univariate analysis was undertaken to determine the frequency distribution and percentage of each variable. To identify the correlation between variables using the chi-square test, bivariate analysis was undertaken.

RESULT

Respondents Characteristic by Age

Age is the length of time the respondent has lived in years starting from the date of birth until the research is conducted. Respondent characteristic by age is shown in Table 1 below.

Table 1. Respondents Characteristic by Age, 2019

Age	n	Percentage (%)
10	3	3.8
11	23	29.5
12	34	43.6
13	18	23.1
Total	78	100

Table 1 showed that the respondents enrolled in this research were aged 10-13 years. Respondents dominantly aged 12 years (43.6%). 23.1% of the respondents in this study being 13 years and only 3.8% of the respondents were 10 years old.

Respondents Characteristic by Age of Menarche

Age of menarche is the age when the respondents experienced their first menstruation. Table 2 showed respondents' characteristics by the age of menarche.

Table 2. Respondents Characteristic by Age of Menarche

Age of Menarche	n	Percentage (%)
10	18	23.1
11	36	46.2
12	22	28.2
13	2	2.6
Total	78	100

Table 2 showed that 23.1% of the respondents had experienced menarche the

earliest, at the age of ten. Nearly half of the respondents (46.2%) have experienced their

menarche at the age of eleven. About 28.2% of the respondents experienced their menarche at

the age of twelve and 2.6% of respondents had their menarche at the age of thirteen.

Source of Information

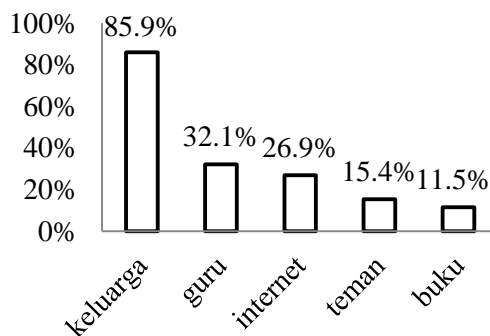


Figure 1 : Source of Information

According to the result of the study, it was known that about 54% of respondents stated that they only obtained information from one type of source. Meanwhile, 46% of respondents gained information related to menstruation and personal menstrual hygiene from more than one type of source. All respondents answered that there was no information about menstruation in their school books. 85.9% of the respondents mentioned their family as the primary source of information. Teachers, the internet, peers, and books were also mentioned as sources of

information related to menstruation and personal menstrual hygiene by 32.1%, 26.9%, 15.4%, and 11.5% of the respondents, respectively.

Knowledge about Menstruation and Personal Menstrual Hygiene

The knowledge level about menstruation and personal menstrual hygiene was measured according to the answers given by the participants. The level of knowledge was divided into two categories: good and poor.

Table 3. The Respondents' Knowledge Level about Menstruation and Personal Menstrual Hygiene

Category	n	Percentage (%)
Good	52	66.7
Poor	26	33.3
Total	78	100

Table 3 showed that a large portion of study subjects (66.7%) had good knowledge regarding menstruation and personal menstrual hygiene. Moreover, about 33.3% of girl students in Kertajaya Elementary School Surabaya had poor knowledge.

Attitude toward Personal Menstrual Hygiene

Attitude toward personal menstrual hygiene was divided into two categories: good and poor.

Table 4. Respondents' Attitude toward Personal Menstrual Hygiene

Category	n	Percentage (%)
Good	47	60.3
Poor	31	39.7
Total	78	100

As shown in Table 4, the attitude toward personal menstrual hygiene of 60.3% of study subjects was good. More than one-third (39.7%) of the participants' attitudes belonged to the poor category.

Personal menstrual hygiene practice measured in this study included washing hands before and after changing the sanitary pad, changing the pad, and disposing of used pads in the dustbin. The measured results were grouped into good and poor categories.

Personal Menstrual Hygiene Practice

Table 5. Respondents' Personal Menstrual Hygiene Practice

Category	n	Percentage (%)
Good	62	79.5
Poor	16	20.5
Total	78	100

Table 5 showed that 79.5% of girl students performed good personal menstrual hygiene. About 20.5% of the respondents found to have poor personal menstrual hygiene practice.

knowledge of personal menstrual hygiene. About 19.2% of the participants with good personal menstrual hygiene practice had poor knowledge about which. Only a few of the girls (6.4%) with a good level of knowledge performed poor personal menstrual hygiene practice. Furthermore, 14.1% of the girls had a poor level of knowledge as well as poor personal menstrual hygiene practice.

Correlation between Knowledge and Personal Menstrual Hygiene Practice

Table 6 showed that most of the respondents (60.3%) practiced and had good

Table 6. Correlation between Knowledge Level and Personal Menstrual Hygiene Practice

Variable		Personal Menstrual Hygiene Practice						ρ
		Good		Poor		Total		
		n	(%)	n	(%)	n	(%)	
Knowledge	Good	47	60.3	5	6.4	52	66.7	0.001
	Poor	15	19.2	11	14.1	26	33.3	
Total		62	79.5	16	20.5	78	100	

According to the result of the chi-square test with $\alpha = 0,05$ or 95% confidence interval, it was known that the significant value for the correlation between knowledge level and personal menstrual hygiene practice was $sig-\rho (0,001) < sig-\alpha$ value (0,05). Therefore, there was a correlation between the knowledge level and personal menstrual hygiene among girl students of Kertajaya Elementary School, Surabaya.

Table 7 showed that more than half of the girl students (52.6%) performed good personal menstrual hygiene supported by a good attitude as well. About 26.9% of the respondents had good personal menstrual hygiene practice however their attitude belonged to the poor category. 12.8% of the participants found to have poor personal menstrual hygiene practice and poor attitude. Only a few of them (7.7%) had a good attitude but poor personal menstrual hygiene practice.

Correlation between Attitude and Personal Menstrual Hygiene Practice

Table 7. The Relationship between Attitude and Personal Menstrual Hygiene Practice

Variable		Personal Menstrual Hygiene Practice						ρ
		Good		Poor		Total		
		n	(%)	n	(%)	n	(%)	
Attitude	Good	41	52.6	6	7.7	47	60.3	0.037
	Poor	21	26.9	10	12.8	31	39.7	
Total		62	79.5	16	20.5	78	100	

Statistic test using chi-square with $\alpha = 0,05$ or 95% confidence interval showed that the

significant value for the relationship between the two variables was $sig-\rho (0,037) < sig-\alpha$

(0,05). It proved that there was a relevant correlation between attitude and personal menstrual hygiene practice among girl students of Kertajaya Elementary School, Surabaya.

DISCUSSION

Respondents Characteristic by Age

A total of 78 girl students of Kertajaya Elementary School Surabaya who met the inclusion criteria were involved in this study. The respondents' age was between 10-13 years old. It signifies that the respondents were at an early stage of adolescence. Today, some of the children aged 10-11 years have already experienced puberty. It is earlier than the previously recorded average age of puberty. One of the puberty signs in girls is early menarche. At the early stage of adolescence in girls, they experience physical and physiological changes. Providing the right information is vital to prepare themselves mentally in order to attain their first menarche (Aryani, 2009).

Nearly half of the respondents (46.2%) had their menarche at the age of 11 years. Other respondents had their menarche at the age of 12 years, 10 years, and 13 years in 28.2%, 23.1%, and 2.6% of the respondents, respectively. The result of this study was similar to research by Pythagoras (2017) that more than 50% of the research participants had their menarche at the age of <12 years.

The majority of the respondents had early menarche and this phenomenon could affect respondents' life both socially and biologically. Decreasing the age of menarche raises the number of unintended pregnancies due to premarital sexual activity. In consequence, it escalates illegal abortion, ingestion disorder, and sexually transmitted diseases (STD) among adolescents (Rois, 2018).

Age is a major internal factor associated with the behavior. Age affects a human's mindset and grasping power. The more mature a person is, the more information he obtains, the more work he does, and this makes someone think and behave wisely. It was proved by research conducted by Fitriyah (2014) that 63.9% of the respondents aged 11 years had good behavior, 71.4% of 12 years old respondents had good behavior, and 100% of 13 years old respondents were well behaved.

Source of Information

Participants said that information related to menstruation and personal menstrual hygiene is very necessary to know. Hence they try to get the information from numerous sources. Some of the information sources mentioned by the participants were family (85.9%), teachers (32.1%), internet (26.9%), friends (15.4%), and books (11.5%).

There were still quite a large number of respondents who accessed information from the internet. However, in reality, not every piece of information related to menstruation and personal menstrual hygiene spread on the internet is approved. Correct and confirmed explanation from experts or someone who master the information, such as health workers, teachers, or parents, is required. So that the respondents won't get confused in case that they find unfamiliar words when accessing information through the internet (Budiono, 2013).

Public Health Center (Puskesmas), school curriculum, and the people around the participants generally did not provide adequate information regarding menstruation and personal menstrual hygiene. Public Health Center does not have a certain program related to menstrual hygiene management. Learning material about menstruation is not widely taught in school because it is considered a sensitive topic. Meanwhile, parents as a primary source of information for girls students usually only tell the information about menstruation once the daughter had their first menarche. Only 13.6% or 3 out of 12 parents provided information about menstruation prior to their daughter's first menarche and there were no parents who give information related to menstruation to their sons (Hastuti, 2019).

Based on the interview with one of Kertajaya Elementary School's teachers, it was known that the school has attempted to provide information about menstruation, however, it was still very limited and insufficient. Information about menstruation was only delivered in between teaching and learning activities. There have never been any education activities that specifically discuss menstruation and the importance of personal menstrual hygiene. In fact, health promotion activities held by the collaboration between a school with other parties provide more information about the dangers of drugs.

Comprehensive information related to menstruation and personal menstrual hygiene is highly necessary for the respondents. It is proved by the statement of all respondents or 100% of them stated that information about menstruation and personal menstrual hygiene is needed. Hence the respondents won't meet any difficulties in accessing information and are sure of the information accuracy.

Knowledge about Menstruation and Personal Menstrual Hygiene

In general, the number of respondents with a good level of knowledge was greater than those with poor knowledge. It proved by the result of this study that 66.7% of the respondents had good knowledge about menstruation and personal menstrual hygiene.

Based on the analysis of respondents' characteristics, it was known that a great number of the respondents were being 12 years old. In addition, the majority of the girl students had their menarche before 12 years old. The participants had a good level of knowledge because they experienced early menarche and have already obtained education regarding menstruation and personal menstrual hygiene. Besides receiving the information, they also had some experiences so these will automatically raise their knowledge related to menstruation and personal menstrual hygiene (Pythagoras, 2017).

Experiences and researches that somebody does influence their behavior. Good knowledge and adequate experience are the reasons for the appearance of good behavior. Good knowledge supports somebody to perform good behavior (Notoatmodjo, 2012).

Attitude toward Personal Menstrual Hygiene

60.3% of respondents' attitude or affective aspect of behavior was good. Respondents' attitudes can be motivated by several reasons. One of the reasons is the knowledge they have. These study participants said that they obtained information mostly from family or mother. It is common for a mother to take care of and protect her children to maintain their health. One of the means to maintain children's health is by giving health education. The emotional relationship between the mother and her child will make the information easier to understand (Yusuf, 2014).

Information about menstruation and personal menstrual hygiene should be delivered comprehensively to the children. Parents are expected to be able to educate children on how to keep the reproductive organs healthy properly. So that it prevents children from any disease of reproductive organs.

If adolescent girls understand this knowledge well, it is guaranteed that they will have a good attitude toward it. If the knowledge is not properly comprehended, it will lead to misunderstanding and may bring unwanted effects. Information about menstruation and personal menstrual hygiene should be conveyed as clearly as possible so it is easy to understand (Pythagoras, 2017).

Personal Menstrual Hygiene Practice

Action or conative aspect of behavior majority of the participants in practicing personal menstrual hygiene was good. About 79.5% of respondents' behavior belonged to the good category.

According to the result of this study, more than 50% of the respondents performed good personal menstrual hygiene. Personal menstrual hygiene practice measured in this study included washing hands before and after changing the sanitary pad, changing the pad, and dispose of used pads in the dustbin. The good habit of handwashing is manifested by washing hands with soap or with only clean water before and after using the sanitary pad. The positive habit of changing the menstrual pad was manifested by the respondents' habit of changing the pad every 4-6 hours despite menstrual bleeding has decreased, changing the pad at school as well as after urinate or defecate. Meanwhile, the positive habit of disposing of the menstrual pad was manifested by not throwing it to the toilet, always wrap it with paper or plastic before disposing of it in the dustbin, and wash the used menstrual pad before disposing of it.

Despite the fact that in general, the respondents' behavior belonged to the good category, there were some improper behaviors performed by several respondents. About 41% of the participants did not change their sanitary pads every time they urinate or defecate. And 30% of the female students did not change their sanitary pads at school. The number of respondents who did the two behavior mentioned prior was quite plenty.

The reason behind this poor behavior was because the school toilet was inadequately maintained, insufficient water availability, and the lack of toilet available at school. Poorly maintained toilets make its users feel uncomfortable, especially female students who are about to change their sanitary pads. Thus, this can make students have no intention to change their menstrual pads at school (Pythagoras, 2017).

Based on the Indonesian Minister of Health Decree Number 1429 of 2006 on Guidelines for the Implementation of School Environmental Health, the ratio of the number of toilets is 1 toilet for 40 male students and 1 toilet for 25 female students (Indonesia Ministry of Health, 2006). While the fact that the writer found in Kertajaya Elementary School was far from the standards. There were only 3 toilets and 3 urinals in a good condition for 468 male students. In addition, there were 5 toilets in a good condition for 505 female students. The number of toilets available at the Kertajaya Elementary School did not meet the standards set by the Ministry of Health. There should be 12 toilets/urinal for male students and 20 toilets for female students. The lack of toilet facilities in Kertajaya Elementary School was due to the small amount of land it owned since it is located in a very dense urban area.

Relationship between Knowledge and Personal Menstrual Hygiene Practice

The result of this study showed that 66.7% of the participants belonged to the good category. Knowledge is an individual's belief or interpretation of something through the human senses. Knowledge gained through experience leads to better behavior (Notoatmodjo, 2012).

A large number of respondents' behavior (79.5%) belonged to the good category. 60.3% of which accompanied by a good level of knowledge and 19.2% of the respondents with good behavior had a poor level of knowledge.

Statistical analysis in this study showed that there was a relevant correlation between knowledge with personal menstrual hygiene practice. An individual with a good level of knowledge tends to have good behavior as well.

One of the determinant factors of knowledge is accessible information. It was proved by 46% of the respondents who stated

that they obtained information from more than one type of source. Respondents who have a good level of knowledge, are also well informed about menstruation and menstrual personal hygiene. The Source of information does not only come from parents and teachers. Yet information can be obtained from parents, teachers, books, peers, and the internet. It is strengthened by the fact that most of the respondents had a good level of knowledge despite the information only provided by the teacher and it was very limited.

Study subjects who had a poor level of knowledge would perform poor behavior as well. Several 25.5% of respondents had a poor practice of personal menstrual hygiene. Analytically, 14.1% of the participants with a good level of knowledge performed poor personal menstrual hygiene practice and only 14.1% of the girls had a poor level of knowledge as well as poor personal menstrual hygiene practice.

A study by Rosmina (2018) has a similar result that only less than 50% of adolescent girls whose level of knowledge belonged to the fairly good category. The impact was most of the respondents used the sanitary pad improperly (Rosmina, 2018).

Albeit there are many factors associated with how somebody performs a behavior, the knowledge factor is still considered as the determinant of personal menstrual hygiene. Knowledge or cognitive aspect of behavior is a determinant in someone's behavior. Behavior that is gained through knowledge will last longer than the behavior based on intuition (Wawan, 2015).

However, the level of knowledge is not an absolute factor that determines an individual's behavior. Family, especially mother, is the main role model for her children. Adolescent girls will copy their mother or their older sister's behavior. Some adolescent girls with a lack of knowledge may practice good behavior because there are some inherited habits from their mothers within them (Ayuningtyas, 2011).

Relationship between Attitude and Personal Menstrual Hygiene Practice

From the analysis result of this study, it was known that there was a relationship between the attitude and personal menstrual hygiene practice among Kertajaya Elementary School, Surabaya. The majority of the

respondents (60.3%) had a good attitude toward personal menstrual hygiene. 79.5% of the participants performed good personal menstrual hygiene behavior. More than half of the girl students (52.6%) performed good personal menstrual hygiene supported by a good attitude as well and only a few of them (7.7%) had a good attitude but poor personal menstrual hygiene practice.

Research by Butarbutar (2016) about the correlation between knowledge and attitude with personal menstrual hygiene in Senior High School I Situnjak, Angkola Barat District stated the same result as this recent study. Statistical analysis showed that there was a relationship between attitude and personal menstrual hygiene practice. It was supported by the fact that girl students who performed good behavior tend to have a good attitude toward personal menstrual hygiene (Butarbutar, 2016).

However, the assumption that adolescent girls with a good attitude will always perform good personal menstrual hygiene behavior cannot be generalized. This is due to research by Rosmina (2018) that varied from this assumption. In the study conducted by Rosmina, it was found that the ratio between adolescent girls with a good attitude to the girls who performed good behavior was in an equal condition (Rosmina, 2018).

Attitude is a closed response from someone to a stimulus that involves emotion. Attitude is a predisposition to an action (Notoatmodjo, 2012). However, attitudes and actions are not always the same. It is due to there are other determinant factors of action. Thus attitude is not the main determinant factor of action or behavior.

Personal hygiene behavior is not only determined by knowledge and attitude. There are many other factors involved, they are grouped into main factors, demographic factors, reinforcing and enabling factors. The main factors such as value, belief, information, and self-concept. Demographic factors namely sex, age, number of a family member in a household, and economic status. Reinforcing factors such as facilities and infrastructure around the individual. And enabling factors namely environment, family, and peers (Notoatmodjo, 2013).

CONCLUSION

Respondents enrolled in this research were aged 10-13 years or in the early stage of adolescence. The majority of the respondents had their menarche at the age of 12 years. Some of the information sources about menstruation and personal menstrual hygiene mentioned by the participants were family, teachers, internet, friends, and books. A large number of participants in this study had a good level of knowledge, attitude, and behavior toward personal menstrual hygiene. Furthermore, there was a correlation between knowledge and attitude with personal menstrual hygiene behavior among girl students of Kertajaya Elementary School, Surabaya.

SUGGESTIONS

School is expected to improve its role by maximizing the implementation of three activities in School's Health Clinic (Trias UKS) to raise girl students' knowledge about menstruation and personal menstrual hygiene to attain menarche. Indirectly it will affect the improvement of students' personal menstrual hygiene at school.

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