

## Knowledge, Attitude and Practice of Menstrual Hygiene Among Adolescent Girls in Public Secondary Schools in Sagbama Local Government Area, Bayelsa State, Nigeria

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### **Abstract**

*The study examined the knowledge and practice of menstrual hygiene among adolescent girls in public high schools in Sagbama Local Government Area, Bayelsa State. A descriptive research design was used for the research. The population of the study consisted of 5,237 female students in (29) public high schools in Sagbama Local Government Area. Stratified and simple random sampling technique were used to select a sample of 372 respondents for the study. A self-structured questionnaire with a reliability coefficient of 0.79 was used for data collection. Data were analyzed using percentage, Chi-Square and ANOVA. The study found that there is a high level of knowledge in menstrual hygiene among adolescent girls in public high schools in the Sagbama Local Government Area. That there is a high level of knowledge about menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area, regardless of age (11,472, Df=2, p=.009). The result of the study also revealed that despite the student's knowledge of menstrual hygiene, there is a low level of menstrual hygiene practices among adolescent girls in public high schools in Sagbama Local Government Area regardless of their age (P<.099). Among other things, it was recommended that; The government should place special emphasis on providing water and toilet facilities in the school in order to reduce female students' absenteeism due to menstrual problems.*

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**Keywords:** Adolescents, Girls, Knowledge, Hygiene, Menstrual, Practice

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### **Introduction**

Adolescence is a transitional stage of growth and development between childhood and adulthood, which is not only physical but also emotional and psychological. According to WHO, an adolescent is defined as any person between the ages of 10 and 19. 1.2 billion adolescents are at the crossroads between childhood and adulthood as different groups of adolescents (people between the ages of 10 and 19) enter puberty each year; unaware, unprepared and confused by the physical changes and emotional challenges that come with it (Kunle, 2017). The onset of

menstruation is the most important physical change that girls undergo during adolescence, so it is not uncommon for girls to have many questions and concerns related to the menstrual cycle. Even most parents lack the required information about the menstrual cycle and issues related to its management (Hang, 2018).

Murye (2017) defined menstruation as a cyclical event that takes place during the reproductive phase of a woman's life. It involves the drainage of mainly blood, mucus and endometrial fragments from the mucous membrane of the uterus. In addition, the nature and amount of monthly periods vary from woman to woman, but an average period can last four days. Menstrual hygiene is a problem for adolescent girls in developing countries, including Nigeria, especially when they are attending school. So far, poor menstrual hygiene in developing countries has been an insufficiently recognized problem (Wikel, 2020). Winkel (2020) said that in different cultures there are (cultural and/or religious) taboos around blood, menstruating girls and women. . Menstruation is a particularly notable issue as it has a more pronounced effect on the quality and enjoyment of education than other aspects of puberty, as it includes a learning component and elements influenced by the school environment and infrastructure (Obed, 2016). These include access to menstrual hygiene materials, latrines and changing areas, safe water and sanitation, and good hygiene practices such as hand washing with soap (Kunle, 2017). Without these, Kunle noted that the school environment is unhealthy, gender discriminatory and inadequate. For girls, puberty marks the start of menstruation. Menstruation is considered a private matter in many contexts, making it difficult to discuss it in public, such as in a classroom. Many girls are not well prepared.

Handling menstruation hygienically in adolescence can be challenging and puzzling. Due to social norms and cultural practices surrounding menstruation, most adolescents receive incomplete or inaccurate information about menstrual hygiene management. The lack of practical life skills to effectively manage menstruation can lower adolescent girls' self-esteem, harm their health and shorten their education (Patel, 2017). The United Nations Children's Fund (UNICEF) is at the forefront of menstruation education efforts; water, sanitation and hygiene (WASH) facilities in schools. Despite the critical importance of menstrual hygiene for adolescent girls, most educational institutions do not provide adolescents with the necessary information prior to menarche. Mothers and female relatives, who may not have the necessary knowledge and skills in menstrual hygiene and management, are often the main source of information for most adolescents (Patel, 2017).

Cully (2016) reported that knowledge is the sum of our beliefs, beliefs and prepositions that have been established and tested as correct reflections as far as they are of objective reality. The attitudes, perceptions and beliefs that girls have about menstruation also influence their hygiene practices during their menstrual bleeding (Ajasin, 2016). Girls with a better understanding of menstruation often have a safe and clean way to manage their menstrual bleeding. It has been discovered that poor menstrual hygiene can be a reason for infection of the reproductive tract and genitourinary tract, cervical cancer, school absenteeism or dropout, poor academic performance, lower self-esteem and poor quality of life (Kunle, 2017). In addition, girls have also often experienced feelings of fear, confusion and embarrassment during menstruation due to odor, leakage, stains on clothes and dropping sanitary materials during their class schedule (Patel, 2017). This can also have a negative impact on concentration, class participation and self-confidence in their studies (Wikel, 2020). Cully (2016) pointed out that girls and women had limited information

about the biological changes associated with menstruation, the various options available to them for safe and hygienic management of menstruation. Mothers and girlfriends were their main sources of information. However, in their environment, these informants were not always armed with knowledge about biological changes, the menstrual cycle, infection due to bad practices, the options girls have regarding the choice of absorbent materials and how to dry and dispose of such materials. Although poor knowledge and unsafe practices of menstrual hygiene have such significant clinical implications for the girls themselves and their future offspring, adolescent girls' knowledge of menstruation is poor and their hygiene practices are not correct, especially in lower socio-economic contexts and in developing countries (Wikel, 2020). It has been reported that 40-45% of adolescent schoolgirls have poor knowledge and unsafe hygiene practices of their menstrual bleeding (Wikel, 2020).

Practice refers to a way of doing something regularly, which sometimes becomes one's behavior. For example, Wanda (2018) described practice as an act of practicing behavior over and over again or undertaking activities over and over again for the purpose of improving or mastering it, as in the phrase "practice makes perfect". It means one's action towards something or someone in the environment. Practice can be seen as repetition of an activity to improve the skill in a particular phenomenon. In this case, it is the managerial skills that women and girls adopt in terms of menstrual hygiene. they adhere to food, sexual, cultural and religious restrictions, which slow down their activities.

Lack of adequate facilities, such as gender-segregated toilet facilities, sufficient safe water supply in schools for washing hands and soiled clothes, facilities for drying clothes and absence of sanitary menstrual materials, can prevent girls from using their menstruation safely and hygienically. These can lead to absenteeism, reduced concentration in class, low participation in and extracurricular activities such as sports and school clean-up. Based on these observations, the study would examine the knowledge and practice of menstrual hygiene among adolescent girls in public high schools in Sagbama Local Government Area, Bayelsa State.

### **Statement of the Problem**

The adolescence stage for the girl child is a demanding time in a woman's developmental life. The girl is in a stage where she is bombarded by hormones and societal norms that affect and influences her physical, mental and emotional development. This period is critical as all aspects of life are fully involved in this development, which is why it is important for the family and society to pay attention to this stage as it shapes the girl's life. Experiences of girls fearing humiliation from blood flow and body odor may result from inadequate school water and sanitation facilities, and poor sanitary environments for proper menstrual hygiene, which can sometimes lead to school absenteeism by menstruating girls.

More observations indicate that lack of water for bathing and washing menstrual materials, dirty latrines, expensive commercial sanitary napkins, lack of sanitary cleaning materials, leakage of poor quality protective equipment, inappropriate places to dry menstrual materials, lack of access to analgesics (painkillers), inadequate waste disposal facilities, lack of privacy for changing menstrual materials, lack of detergents such as soaps and basins, limited education about the facts of menstruation, limited access to guidance and advice, fear caused by cultural myth and, shyness

and low self-esteem and the unsupportive attitude of some men are all factors that can counteract the menstrual hygiene of adolescent girls in public high schools. Knowledge of menstrual hygiene among public high school adolescents may be low, leaving them unable to adequately control their periods. It became necessary to investigate the knowledge and practice of menstrual hygiene among adolescent girls in public high schools in Sagbama Local Government Area, Bayelsa State.

### **Research Questions**

The following research questions were posed to guide the conduct of the study

1. What is the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area?
2. What is the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age?
3. What is the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area?
4. What is the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age?

### **Hypotheses**

The following null hypotheses guided the study.

1. There is no significant difference in the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age
2. There is no significant difference in the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age

### **Methods**

#### *Participants and recruitment*

This study adopted the descriptive survey research design. The population of the study comprised 5,237 female students in (29) public secondary schools in Sagbama Local Government Area. The sample size used for the study was 371 respondents which was drawn through stratified random sampling.

#### *Instrument and Measures*

The research instrument was a self-designed instrument titled: “Knowledge and Practice of Menstrual Hygiene Questionnaire” (KPMHQ). Section A; contained socio-demographic information such as age and parents educational background while section B; contained ten (10) item statements on Knowledge, Section C; contained ten (10) item statements on Practice. Section B were structured on a 2-point modified Likert scale of Yes = 2 and No = 1. while Section C were structured on a four point modified Likert Scale of Always, Occasionally, Rarely and Never. While Section C. The reliability coefficient of (DPTSQ) was  $r=0.77$  and was determined using the test-retest method. The data collected were analyzed using frequency counts and simple percentage to answer the research questions while Chi-Square and ANOVA were used to test the null hypotheses at 0.05 level of significance.

## Results

**Table 1: Simple percentage showing the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area**

S/N	Knowledge of Menstrual Hygiene	Yes%	No%
1	Poor menstrual hygiene can result to menstruation complications	77%	23%
2	Incineration method is the best method for proper disposal of menstrual materials	50%	50%
3	Is tissue paper the best absorbent to maintain good hygiene for menstruation	62%	46%
4	Availability of WASH (water sanitation and hygiene) facilities in school can promote menstrual hygiene	71%	29%
5	Is sanitary pad the best sanitary material to be used during menstruation?	85%	15%
6	Used menstrual pads should be properly wrapped and safely disposed	59%	41%
7	Pads should be changed at least three times daily when menstruating	66%	34%
8	Having a bath at least twice daily when menstruating is good to maintain hygiene during menstruation	88%	18%
9	Menstruation is the monthly discharge of blood through the vagina	63%	37%
10	Have you any awareness of menstruation management before your first menstrual period?	90%	10%

Table 1 shows the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area. Specifically, items 1, 2, 3,4,5,6,7,8,9, and 10 had a high percentage revealing the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area. From the table above it is revealed that there is high level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area.

**Table 2: Simple percentage showing the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age**

S/N	Knowledge of Menstrual Hygiene based on Age	13-15yrs N=188		16-18yrs N=122		19-Above N=133	
		Yes%	No%	Yes%	No%	Yes%	No%
1	Poor menstrual hygiene can result to menstruation	85%	15%	70%	30%	90%	10%
2	Incineration method is the best method for proper disposal of menstrual materials	60%	40%	65%	35%	50%	50%
3	Is tissue paper the best absorbent to maintain good hygiene for menstruation	50%	50%	77%	27%	65%	35%
4	Availability of WASH (water sanitation and hygiene) facilities in school can promote menstrual hygiene	63%	37%	80%	20%	80%	20%
5	Is sanitary pad the best sanitary material to be used during menstruation?	80%	20%	70%	30%	73%	27%
6	Used menstrual pads should be properly wrapped and safely disposed	69%	29%	65%	35%	60%	40%
7	Pads should be changed at least three times daily when menstruating	62%	38%	71%	29%	58%	42%
8	Having a bath at least twice daily when menstruating is good to maintain hygiene during menstruation	70%	30%	50%	50%	64%	36%
9	Menstruation is the monthly discharge of blood through the vagina	79%	21%	82%	18%	70%	30%
10	Have you any awareness of menstruation management before your first menstrual period?	56%	44%	55%	45%	90%	10%

Table 2 shows the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age. Specifically, items 1, 2, 3,4,5,6,7,8,9, and 10 had a high percentage revealing the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age. From the table above it is revealed that there is high level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area irrespective of their age.

**Table 3: Simple percentage showing the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area**

S/N	Practice of Menstrual Hygiene	$\bar{X}$	SD
21	I wash and dry reusable materials in direct sunlight	2.03	0.75
22	I wash my private part with soap during menstruation	1.20	0.99
23	How often do you bathe with soap and water during menstruation	1.19	0.58
24	I change my menstrual pads after 8 hours	2.83	1.31
25	I bathe when menstruating at least 3 times a daily	1.97	0.84
26	I bury menstrual materials after menstruating	1.98	0.73
27	I use sanitary pads when am menstruating	1.14	0.76
28	My private part is clean when I wash with clean water only	2.41	1.41
29	I dispose menstrual materials when I get home from school	2.77	0.41
30	I use cotton wool during menstruation	2.67	0.57
<b>Grand Mean/SD</b>		<b>2.22</b>	<b>1.01</b>

Table 3 shows the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area. Specifically, the cluster mean of 2.22 with the standard deviation of 1.01 were also found to be below the cut-off point of 2.50. This implies that there is low level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area.

**Table 4: Simple percentage showing the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age**

S/N	Practice of Menstrual Hygiene based on Age	13-15yrs N=188		16-18yrs N=122		19-Above N=133	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
21	I wash and dry reusable materials in direct sunlight	2.14	2.10	1.86	0.91	2.05	1.09
22	I wash my private part with soap during menstruation	1.22	1.04	1.35	1.12	2.41	1.17
23	How often do you bathe with soap and water during menstruation	2.19	1.08	2.16	0.91	2.12	0.74
24	I change my menstrual pads after 8 hours	2.31	0.74	1.31	0.70	2.80	1.00

25	I bathe when menstruating at least 3 times a daily	2.06	0.90	2.31	1.06	2.18	0.84
26	I bury menstrual materials after menstruating	2.09	0.93	1.05	0.73	1.90	0.87
27	I use sanitary pads when am menstruating	1.52	1.04	2.01	1.00	2.07	0.83
28	My private part is clean when I wash with clean water only	1.63	0.99	2.26	0.97	2.21	0.76
29	I dispose menstrual materials when I get home from school	2.78	1.10	2.16	0.95	2.15	0.91
30	I use cotton wool during menstruation	1.36	0.66	2.01	0.58	2.10	0.72
<b>Grand Mean/SD</b>		<b>2.22</b>	<b>0.31</b>	<b>2.00</b>	<b>0.43</b>	<b>2.10</b>	<b>0.87</b>

Table 4. shows the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age. Specifically, the cluster mean of 2.22, 2.00, 2.10 with the standard deviation of 0.31, 0.43, 0.87 were also found to be below the cut-off point of 2.50. This implies that there is low level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area irrespective of their age.

**Table 5: Chi-square analysis showing significant difference in the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age**

	Value	Df	Asymp. Sig. (2-sided)
Pearson chi-square	11.472 <sup>a</sup>	2	.009
Likelihood ratio	11.000	2	.007
Linear-by-linear association	9.877	1	.015
N of valid cases	372		

Table 5. showed the chi-square analysis as=11.472, Df=2, p=.009, This shows that age statistically and significantly influence the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area.

**Table 6: Anova analysis on association between the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age**

Model	ANOVA <sup>a</sup>						Decision	
	Sum of Squares	Df	Mean Square	F	P-value	Alpha Level ( $\alpha$ )		
1	Regression	16.221	2	14.001	11.196	.099 <sup>b</sup>	0.05	Not Significant
	Residual	1516.807	370	.552				
	Total	1533.028	372					

a. Dependent Variable: Groups

b. Predictors: (Constant), Scores

Table 6. shows dependent variables and predictors constant scores of Anova value of F-value was 11.196, P-value was .099<sup>b</sup> with alpha level 0.05 at 370 degree of freedom. This means that hypothesis 5 which states that there is no significant difference in the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age was therefore accepted.

### Discussion of Findings

The finding of this study revealed that there is a high level of knowledge in menstrual hygiene among adolescent girls in public high schools in Sagbama Local Government Area. This result is not surprising as the students were well versed in menstrual management before the onset of menstruation. The finding is consistent with the study by Uzok (2018) who noted that adolescent girls had a high level of menstrual hygiene knowledge, which could be due to a series of exposures to the elderly and relatives who try to commit them to being a woman at an early stage.

The finding this study revealed that age statistically and significantly influence the level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area. The finding is in line with the study of Murye (2017) whose study revealed that female secondary school students were closer to their mothers and elderly female siblings and the discussion on menstruation was periodically discussed among the various age groups as a way of enhancing their knowledge resource on the issue. The finding of this study also corroborates Hang (2018) work evident that a significantly high number of girls had good knowledge of menstrual hygiene.

The finding of this research revealed that there is low level of menstrual hygiene practice among adolescent girls in public secondary schools in Sagbama Local Government Area. The finding is not surprising to the researcher as female students often complain of not having separate toilet facility from their male counterparts to encourage privacy, also the high cost of buying sanitary pads and poor sanitary conditions in the school could be the major reason behind the students' low level of practice of menstrual hygiene. The study of supported the finding of Undelikwo (2018) whose study revealed that having a private toilet, access to wash facilities and fund was associate with having good menstrual hygiene practice. The result of this study is also in agreement with

the finding of Patel (2017) who narrated that practice of menstrual hygiene was found to be low among school aged adolescents mainly in public secondary schools.

The finding further revealed that there is no significant difference in the level of practice of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area based on age. The researcher's finding is not astonishing since in most communities, parents or older siblings perceives the discussion of menstruation management with the younger girl child as a taboo. The finding collaborates with the study of Undelikwo (2018) which noted that menstrual hygiene management is a neglected and silent issue especially among communities in which talking about menstrual hygiene, is taboo in their culture.

### **Conclusion**

Based on the findings, the study concluded that there is high level of knowledge of menstrual hygiene among adolescent girls in public secondary schools in Sagbama Local Government Area irrespective of their age. Furthermore, that despite their knowledge of menstrual hygiene, there is still low level of menstrual hygiene practice among adolescent girls in public secondary schools in Sagbama Local Government Area irrespective of their age.

### **Recommendation**

1. The government should give special emphasis in providing water and toilet facilities in the school which would reduce school absenteeism of female students due to menstruation-related problems;
2. The teachers need to incorporate reproductive health education, including menstrual hygiene to their students in the school curriculum to improve their knowledge, attitude and practice;
3. The health care providers should educate the community about menstruation and its hygienic management to avoid discrimination and restrictions during menstruation and to educate the girl child about good management of menstrual hygiene.

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