



AWARENESS OF MENSTRUAL HYGIENE AND FACTORS AFFECTING ITS PRACTICE AMONG ADOLESCENT GIRLS IN TWO SELECTED SENIOR SECONDARY SCHOOLS IN OGUN STATE, NIGERIA

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ABSTRACT: Background: In Africa, menstrual hygiene and its practices are still clouded by taboos and sociocultural restrictions, ignorance and illiteracy so that menstruation is viewed in a base manner, and considered dirty and filthy, which requires the isolation of the woman from some normal daily activities. Thus, menstrual hygiene involves the conditions and activities that promote and preserve health during menstruation. This study assessed the awareness of menstrual hygiene and factors affecting its practice among adolescent girls in two selected senior secondary schools in Ogun state, Nigeria. **Method:** The study utilized quantitative cross-sectional survey design. Purposive sampling technique was used in selecting 150 respondents for the study in the two selected senior secondary schools. Descriptive statistics, correlation and T-test fixed at 0.05 significance level was conducted to give statistical responses to the research hypotheses using SPSS version 21. **Result:** The result showed that adolescent girls in Babcock University High School (BUHS) and Remo High School (RHS) had advanced knowledge of menstrual hygiene and they had moderate practices of menstrual hygiene, but there were factors like religion and lack of conducive facilities affecting the effective practice among adolescent girls. Furthermore, respondents' knowledge on menstrual hygiene had no significant positive relationship with practices of menstrual hygiene among adolescent girls in private schools and those in public schools ($r = .022, p > .01$). There was no significant difference between adolescent girls in private and public schools on practice of menstrual hygiene. **Conclusion:** Adolescent girls in BUHS and RHS had advanced knowledge of menstrual hygiene but moderate menstrual hygiene practices. This may be as a result of factors such as religion and lack of conducive facilities that hinder the effective practice among adolescent girls as identified in the study. Among other recommendations, the school administrations are advised to provide more conducive and appealing facilities for adolescent girls to practise good menstrual hygiene.

KEYWORDS: Awareness, Practice, Menstrual Hygiene, Adolescent



INTRODUCTION

Menstruation is a normal physiological process that occurs in females during their reproductive age. The onset of menstruation is at puberty. There is no definite definition of menstrual hygiene; however, on a breakdown, hygiene can be defined as those conditions and activities that promote and preserve health while menstruation can be defined as the cyclical shedding of the inner lining of the uterus—the endometrium—under the control of hormones of the hypothalamo-pituitary axis (Uzoma-Aniebue, Nonyelum-Aniebue & Ogochukwu-Nwankwo, 2009). Menstrual hygiene involves the conditions and activities that promote and preserve health during menstruation. Girls usually get to their stage of puberty between age 8 and age 13, and about two and a half years after a girl's breast develops, she usually experiences her first period. Most girls start having their menstruation between the ages of 11 and 15, usually always after their peak growth rate in height. The first menstrual period a girl experiences is called menarche.

Adolescence, according to WHO, is identified as the period in human growth and development that occurs after childhood and before adulthood, from age 10–19. A menstrual cycle is defined as a period between the first days of menstrual period to the onset of the next menstrual period. Averagely, the cycle is about 28 days and the period lasts for 3–5 days. Menstrual hygiene practices can be influenced by the quality of information gathered, cultural and religious beliefs, environmental factors like location, and the race. Maintaining cleanliness and tidiness during the menstrual cycle is a big problem especially when the information on menstruation and reproductive health is poor. Poor environmental factors negatively influence menstrual hygiene practices.

In Africa, Nigeria specifically, among the Ijaw people of the South South, Bayelsa state, information on adolescent menstrual hygiene and its proper practice are scarce and have not been accessible by adolescent girls (Adika, 2011). Lawan, Nafisa and Aisha (2010) reported differences in the levels of knowledge between urban and rural school girls. The study reported that the differences were connected to their different levels of exposure to information about reproductive health, as urban school girls were found to be more exposed to media-borne information than girls in rural schools. The study reported that urban girls applied better hygienic practices than rural girls. Contrary to the above findings on knowledge, a study carried out in Eastern Nigeria indicated an adequate level of knowledge of menstruation and menstrual hygiene among girls in rural schools (Nkandi, 2011).

Yadav, Joshi, Poudel and Pandeya, (2017) reported in their study on menstrual hygiene management among the adolescent girls that 67.4% have a fair knowledge, 26.4% have a good knowledge and only 40% were using good practices.

Parents are among the contributors to the lack of information among adolescent girls. The refusal of parents to communicate with their daughters about sensitive issues like this has left a great vacuum in the female children's hygienic management and practices, and of course it is particularly noticed in the rural communities and among uneducated parents (Mudey, Keshwani, Mudey, & Goyal, 2010). On the part of culture and religion, there are different views about menstruation. In Nigeria, religion has been identified as one of the factors that affect menstrual practices. Guterman, Mehta and Gibbs, (2008) reported that the Christian denomination excludes menstruating women from some activities in the church, such as the holy communion. Also, it has been reported that in the Muslim community, menstruating



women are to be avoided by men; they should be left alone until they are cleaned and have been purified (Guterman *et al.*, 2008). Taboos surrounding menstruation exclude women and girls from many aspects of social and cultural life as well as menstrual hygiene services. Such taboos include not being able to touch animals, water points or food that others will eat, and exclusion from religious rituals, the family home and sanitation facilities. As a result, women and girls are often denied access to water and sanitation when they need it most (Kamath, Ghosh, Lena & Chandrasekaran, 2013).

Moreover, expense of commercial pads, lack of water and sanitation facilities at schools, and lack of gender specific toilets or private rooms for changing sanitary pads are some of the factors that affect menstrual hygiene management (MHM) at the social, cultural and economic levels (Loughborough University, 2012).

Poor menstrual hygiene practices allow for a great breed of infectious disease-causing microbes which can lead to morbidity or mortality of the girl child sooner or later. Also, poor menstrual hygiene and its practices have resulted in poor health outcomes or results and poor health status of the adolescent girl (Uzochukwu, Patricia & Theophilus 2009). Furthermore, unhygienic practices during menstruation lead to reproductive tract infections of various kinds as well as other gynaecological issues (Shanbhag *et al.*, 2012). Additionally, mismanagement of menstrual hygiene affects women's private and social lives in many ways (Ahmed & Yesmin, 2008). Many girls who do not attend school or are unable to concentrate properly in the classroom end up having poor performances in their examinations (Alam, Luby, Halder, Islam., Opel, Shoab, ... & Unicomb, 2017).). On the other hand, good knowledge of menstrual hygiene and practices reduces the risk of urinary and reproductive tract infections and complications (Kamaljit, Arora, Singh, & Neki, 2012). Moreover, the expense of commercial pads, lack of water and sanitation facilities in schools, and lack of gender specific toilets or private rooms for changing sanitary pads are some of the factors that affect menstrual hygiene management (MHM) at the social, cultural and economic levels (Loughborough University, 2012).

Sadly, attention on issues relating to menstrual hygiene has been insufficient and not appropriately addressed, and its practices have not been properly dealt with yet (WaterAid, 2009). Awareness about menstruation, menstrual hygiene and its practices among adolescents is low and not properly communicated. A study from UNICEF revealed that 1 out of 3 girls in South Asia know nothing about menstruation prior to experiencing it while 48% of girls in Iran and 10% of girls in India still believe that menstruation is a disease (WaterAid, 2013). Schools, on the other hand, have paid little or no attention to increasing the knowledge, enlightening students and empowering them about methods and ways to improve menstrual hygiene practices. Adolescent girls that are still ignorant of hygienic practices or unwilling to take up proper management end up having serious adverse health challenges (Dasgupta & Sarkar, 2008).

Thus, it is important for adolescents to have necessary knowledge, amenities and a good cultural environment to manage menstruation hygienically and with dignity. It is very essential to prepare adolescent girls adequately before puberty or menarche on menstruation, its hygiene and proper management or practices. This research was carried out to assess the level of awareness of menstrual hygiene and its practices among senior secondary school girls in two selected secondary schools in Ogun state, Nigeria.



Research Questions

1. What is the level of awareness of menstrual hygiene among adolescent girls of senior secondary schools?
2. What are the menstrual hygiene practices of adolescent girls in private schools and that of adolescent girls in public schools?
3. What are the factors affecting menstrual hygiene practices among adolescent girls of senior secondary schools?

Research Hypotheses

1. There is no significant relationship between awareness of menstrual hygiene and its practices among adolescent girls.
2. There is no significant difference in the practice of menstrual hygiene among adolescent girls based on type of school (private or public schools).

Methods

The study adopted a quantitative cross-sectional survey design. The aim of the design was to provide data on the entire population under study. The study was carried out in two different schools in Ogun state, Nigeria—Babcock University High School and Remo High School. The study population consisted of adolescent girls who had started menstruating in the two selected secondary schools (BUHS and RHS). This study employed purposeful sampling technique. Simple random selection under strict monitoring was used to select the participants.

Sample size was determined using Yamane's (1973) formula:

$$n = \frac{N}{1 + N(R)^2}$$

$$n = 150.4$$

where N = total population size

n = sample size

R = level of precision (0.05).

Table 1: Population Determination in the Two Schools

Name of school	Population of girls in SSS1	Population of girls in SSS2	Population of girls in SSS3	Total
Babcock University High School	40	43	35	118
Remo High School	45	40	38	123
				241



Ethical clearance was obtained from Babcock University Health and Reach Ethics Committee before going to the field to protect the participants' rights. Informed consent was also given through verbal communication and interaction with the students. Participants were allowed to voluntarily choose to participate.

RESULT

Table 2: Demographic Information of participants

			N= 150			
			Babcock University High School		Remo High School	
S/N	Items		Frequency	%	Frequency	%
1	Age	12–14 years	53	70.7	3	4.0
		15–17 years	22	29.3	66	88.0
		18–20 years	-	-?	6	8.0
2	Class	SSS1	31	41.3	75	100
		SSS2	31	41.3	-?	-
		SSS3	13	17.3	-?	-
3	Name of school	Remo High School	75	50		
		Babcock University High School	75	50		
4	Are you the first female child in your family?	Yes	39	52.0	37	49.3
		No	36	48.0	38	50.7
5	Occupation of parents	Vocational workers	21	28.0	59	78.7
		Civil servants	54	72.0	16	21.3
6	Have you started your period?	Yes	72	96.0	72	96.0
		No	3	4.0	3	4.0

Table 2 presents demographic background information of the respondents. Majority (88.0%) were between 15 and 17 years of age in Remo High School and 70.7% were between 12 and 17 years in Babcock University High School. 41.3% were in SSS1, 41.3% were in SSS2 and 17.3% were in SSS3 in Babcock University High School. 50% of students of Remo High School and 50% of students of Babcock University High School were chosen. Majority of their parents were vocational workers. Majority (96% respectively) in both schools reported that they had started their periods.

**Table 3: Awareness of Menstrual Hygiene**

S/ N	Items	Babcock University High School		Remo High School	
		Yes	No	Yes	No
		F(%)	F(%)	F(%)	F(%)
1	Have you heard of the term menstruation?	72 (96.0)	3 (4.0)	74 (98.7)	1 (1.3)
2	Menstrual hygiene can be good or poor?	74 (98.7)	1 (1.3)	62 (82.7)	13 (17.3)
3	Good menstrual hygiene involves using reusable cloth for pad during menstruation?	10 (13.3)	65 (86.7)	21 (28.0)	54 (72.0)
4	Menstrual hygiene is those activities during menstruation that promotes health?	67 (89.3)	8 (10.7)	67 (89.3)	8 (10.7)
5	Poor menstrual hygiene practices can cause sickness?	67 (89.3)	8 (10.7)	63 (84.0)	12 (16.0)
6	Using sanitary pad is a good menstrual hygiene practice?	74 (98.7)	1 (1.3)	70 (93.3)	5 (6.7)

Table 3 presents information on awareness of menstrual hygiene. Majority of the students had heard of the term menstruation in Remo High School (RHS) and Babcock University High School (BUHS)—98.7% and 96% respectively. 82.7% reported that menstrual hygiene can be good or poor in BUHS and 98.7% did same in RHS. For 86.7% and 72.0% in BUHS and RHS respectively, good menstrual hygiene does not involve using reusable cloth for pad during menstruation. 89.3% in both schools agreed that menstrual hygiene are those activities during menstruation that promote health. Also, 89.3% and 84% in BUHS and RHS respectively agreed that poor menstrual hygiene practices can cause sickness. Finally, 98.7% in BUHS and 93.3% in RHS reported that using sanitary pad is a good menstrual hygiene practice.

Table 4: Menstrual Hygiene Practices

S/N	Items	Babcock University High School		Remo High school	
		Yes	No	Yes	No
	What do you normally use during your period?				
1	Cloth towel	1 (1.3)	74 (98.7)	9 (12.0)	66 (88.0)
2	Sanitary pads	61 (81.3)	14 (18.7)	68 (90.7)	7 (9.3)
3	Menstrual cup	5 (6.7)	70 (93.3)	4 (5.3)	71 (94.7)
4	Toilet paper	11 (14.7)	64 (85.3)	7 (9.3)	68 (90.7)



How many times do you take your bath when menstruating?					
5	Once	9 (12.0)	66 (88.0)	7 (9.3)	68 (90.3)
6	Two times	83 (55.3)	40 (53.3)	48 (64.0)	27 (36.0)
7	Three times	36 (48.0)	39 (52.0)	23 (30.7)	52 (69.3)
How do you dispose used menstrual materials?					
8	By burning	50 (66.7)	25 (33.3)	13 (17.3)	62 (82.7)
9	By flushing in the toilet	19 (25.3)	56 (74.7)	31 (41.3)	44 (58.7)
10	By burying	34 (45.3)	41 (54.7)	24 (32.0)	51 (68.0)
11	By washing and reusing	2 (2.7)	73 (97.3)	12 (16.0)	63 (84.0)
How often do you buy and use menstrual materials?					
12	Once in a while	2 (2.7)	73 (97.3)	28 (37.3)	47 (62.7)
13	Two times in a year	1 (1.3)	74 (98.7)	16 (21.3)	59 (78.7)
14	I reuse previous ones	1 (1.3)	74 (98.7)	75	(100)
15	Alternatively	9 (12.0)	66 (88)	30 (40.0)	45 (60.0)
16	Every month	65 (86.7)	10 (13.3)	50 (66.7)	25 (33.3)
17	I do not buy materials	74 (98.7)	1 (1.3)	15 (20.0)	60 (80.0)
18	Do you stay away from all other activities during your period?	21 (28.0)	54 (72.0)	36 (48.0)	39 (52.0)

Table 4 presents responses on menstrual hygiene practices. Majority of the students used sanitary pads (81.3% and 90.7%) during their periods and took their baths two times (55.3% and 64.0%) in BUHS and RHS respectively when menstruating. Most disposed used menstrual materials by burning (66.7% and 17.3%), flushing in the toilet (25.3% and 41.3%) and by burying (45.3% and 32.0%) in BUHS and RHS respectively. Most of them often bought and used menstrual materials every month—86.7% in BUHS and 66.7% in RHS. Specifically, 28% and 48% in BUHS and RHS respectively reported that they stay away from all other activities during their periods.

Table 5: Factors Affecting Menstrual Hygiene Practices

S/N	Items	Babcock University High School		Remo High school	
		Yes	No	Yes	No
1	In my family, we are forbidden from using sanitary pad	2 (2.7)	73 (97.3)	4 (5.3)	71 (94.7)
2	My family only allows use of tissue paper and cloth material when menstruating	3 (4.0)	72 (96.0)	4 (5.3)	71 (94.7)
3	I do not have money to buy sanitary pad always, so sometimes I use other materials	6 (8.0)	69 (92.0)	16 (21.3)	59 (78.7)



4	There are no conducive facilities in my school to enable me change regularly	10 (13.3)	65 (86.7)	44 (58.7)	31 (41.3)
5	My religion forbids me from attending mosque, church or school when I am menstruating	4 (5.3)	71 (94.7)	32 (42.7)	43 (57.3)

Table 5 presents factors that affect menstrual hygiene practices. The results show that conducive facilities was the major factor that affected menstrual hygiene practices.

Answering research questions

Research Question One: What is the level of awareness of menstrual hygiene among adolescent girls?

Table 6.1: Level of awareness of menstrual hygiene in RHS

Awareness	Frequency	%	Mean	SD
Low (0-3)	3	4	4.81	0.12
High (4-6)	72	96		
Total	75	100		

Table 6.1 indicated that students scored high on awareness of menstrual hygiene ($M = 4.81$, $SD = 0.12$) implying that they have high awareness of menstrual hygiene in RHS.

Table 6.2: Level of awareness of menstrual hygiene in BUHS

Awareness	Frequency	%	Mean	SD
Low (0-3)	4	5.3	4.79	0.13
High (4-6)	71	94.6		
Total	75	100		

Table 6.2 indicated that students scored high on awareness of menstrual hygiene ($M = 4.79$, $SD = 0.13$) implying that they have high awareness of menstrual hygiene in BUHS.

Research Question Two: What are the menstrual hygiene practices of adolescent girls in private schools and that of public schools?



The result from table 4 showed that students in BUHS (81.35%) and in RHS (90.7%) used sanitary pads during their periods and took their baths mostly two times to three times when menstruating. Most of them disposed used menstrual materials by burning and majority often bought and used menstrual materials every month. Overall, moderate practice of menstrual hygiene was identified among the participants.

Research Question Three: What are the factors affecting menstrual hygiene practices among adolescent girls in senior secondary schools?

From table 5, it can be deduced that conducive facilities was the major factor that affected menstrual hygiene practices among the study participants, especially in BUHS.

Hypotheses Testing

Hypothesis One: There is no significant relationship between awareness of menstrual hygiene and its practices among adolescent girls.

Table 9: Pearson Product Moment Correlation Analysis of awareness of menstrual hygiene and its practice of menstrual hygiene

Variables	N	Mean	S.D	R	Sig.	Remark
Awareness of menstrual hygiene	150	1.8011	0.12318	0.022	.790	Not significant
Practice of menstrual hygiene	150	1.2285	0.07548			

As shown in Table 9, there is no significant positive relationship between knowledge of menstrual hygiene and practices of menstrual hygiene among adolescent girls in private schools and those in public schools ($r = .022, p > .01$). Therefore, the hypothesis that there is no significant relationship between knowledge of menstrual hygiene and its practices among adolescent girls in private schools and those in public schools is accepted.

Hypothesis Two: There is no significant difference in the practice of menstrual hygiene among adolescent girls based on type of school (private and public schools).

Table 10: T-Test showing the Mean Difference between private and public adolescent girls on practice of menstrual hygiene

Name of school	N	Mean	Std. Deviation	Df	Mean Diff.	T	Sig.	Remark
Remo secondary school	7 5	1.239 3	0.07802	14 8	0.0214 8	1.75 5	0.08 1	Not sig.
Babcock university high school	7 5	1.217 8	0.07178					

The result in Table 10 shows that a significant difference does not exist between adolescent girls in private and public schools on practice of menstrual hygiene with mean values of 1.2393 and 1.2178 for adolescent girls in RHS and BUHS respectively. The mean difference between



the two groups is 0.02148. An independent t-test shows that the difference between the groups is not significant ($t = 1.755$, $df = 148$, $p = 0.081$). Therefore, the hypothesis that there is no significant difference in the practice of menstrual hygiene among adolescent girls based on type of school is accepted.

DISCUSSION

Findings from this study showed that the majority (58.7%) of the respondents were between 15 and 17 years of age. 20.7% were in SSS1 and SSS2 respectively, and 58.7% were in SS3. 50% of the adolescent girls were from RHS and the 50% left were from BUHS. Majority of their parents were vocational workers. Majority (96%) of the respondents reported that they had started their periods. Findings from the result revealed that majority (96%) of the respondents were very much aware and knowledgeable of what menstrual hygiene entails as compared to a similar study done by Priya, Kumari & Meena (2019) where 61% had moderate knowledge on menstrual hygiene; Yadav Joshi, Poudel & Pandeya (2018) revealed that 67.4% had fair knowledge and 26.4% had a good knowledge.

Findings from the study also revealed that respondents had a good practice of menstrual hygiene, which is in line with the study conducted by Asha, Karim, Bakhtiar and Rahaman (2019) where 67.8% of the respondents had a good practice of menstrual hygiene.

Results also showed that lack of conducive facilities in school (36%) and religion (24%) were major factors affecting menstrual hygiene practices. This corroborates the study of Kaur, (2019) where 67.6% of the respondents did not attend religious programmes during menstruation, 9.9% did not attend school during menstruation and 58.67% didn't participate in play activities during menstruation. This result is in line with Asha, Karim, Bakhtiar & Rahaman, (2019) where lack of gender-specific toilets and water supply affects menstrual hygiene management, leading to poor physical and psychological health outcomes. In a study in Bangladesh, it was found that the absence of an available gender-specific toilet was one reason for school absence during menstruation (Alam *et al.*, 2017).

CONCLUSION AND RECOMMENDATIONS

The study found out that adolescent girls in BUHS and RHS had high knowledge of menstrual hygiene and they had moderate practice of menstrual hygiene, but there were factors like religion and lack of conducive facilities affecting the effective practices among adolescent girls. Thus, the hypotheses established the fact that there was no relationship between awareness of menstrual hygiene and its practices among adolescent girls in private schools and those in public schools. Also, there was no significant difference in the practice of menstrual hygiene among adolescent girls based on type of school (private and public schools). And lastly, there was a significant influence of factors affecting menstrual hygiene on the practice of menstrual hygiene among adolescent girls.

It is recommended that information on safe hygiene and sanitary practices should be included in the school curriculum, and that there should be better communication between female students and their teachers as well as between daughters and mothers. Also, the school



administration should provide adolescent girls more conducive and appealing facilities for them to practice good menstrual hygiene.

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