

Original Research Article

Knowledge and menstrual hygiene practices among adolescent secondary school girls in Ebonyi State, Nigeria

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ABSTRACT

Background: Menstrual hygiene is an aspect of sexuality education that people do not want to discuss publicly. Because of this most adolescent girl are bereaved of knowledge about menstrual hygiene practices. Therefore, the present study attempted to ascertain the knowledge and menstrual hygiene practices among adolescent secondary school girls in Ebonyi state, Nigeria.

Methods: This was an institutional based cross-sectional study conducted from 11th July to 9th September 2021 among adolescent secondary school girls in Ikwo local government area, Ebonyi State, Nigeria. Data were collected from 400 participant using administered questionnaire. However, out of 400 participants, 315 properly filled and fit for analysis.

Result: From a total of 315 adolescent girls participated in this study, majority 251 (79.7%) of the girls possess good knowledge while 64 (20.3%) has poor knowledge of menstrual hygiene practices. The result further indicated a significant association between the age groups (Chi square=10.862; $p=0.004 < 0.05$); class level (Chi square=23.601; $p=0.000 < 0.05$) and the knowledge of menstrual hygiene practices among the adolescents' girls respectively.

Conclusions: There is need for government at all level, health educators and parents to design acceptable awareness creation and advocacy programs to improve the knowledge especially among adolescent girls at their early adolescents and those at lower class and so as to promote safe hygienic practices during menstruation.

Keywords: Menstruation, Knowledge, Hygienic practices, Adolescent girls, Secondary schools

INTRODUCTION

Menstruation is a normal reproductive phenomenon associated with female adolescents of reproductive age globally.¹ Mensural period is associated with "physiological process during the females' reproductive ages of monthly shedding of the endometrial lining in menstrual fluid, which exits the uterus through the

cervical opening and the body through the vagina.² Some women experience symptoms such as; abdominal cramps, lower back pain, bloating and sore breast, food craving, mood swings, headache among others.² The duration of the menstrual cycle is an averages of about 28 days, though ranges between 21 and 35 days in some females. The menstrual period lasts from 2 to 7 days, but most females experience menstrual flow for 3-5 days.

However, the duration and intensity of menstrual flow varies between individuals and at different times.³⁻⁵

It is observed that during this period of menstrual flow, female adolescence undergoes dramatic changes physically, emotionally and even socially.^{6,7} It is further reported that the onset of menses takes place during this period of adolescent physiological and emotional changes.⁸⁻¹⁰ Adolescence is the age range between the age range of 10-19-years when an individual can no longer be classified as a child but still cannot be classified fully as an adult.¹¹⁻¹³ However, this is the period of individuation among adolescents where they try to establish their own independence by leaving the tutelage of their parents and joining different environments such as schools which help them plan for the next stage of life.¹⁰ This adolescent's age range of 10 to 19 years was adopted for the present study to elicit information on the knowledge and menstrual hygiene practices among adolescent secondary school girls in Ebonyi state, Nigeria.

Most adolescent girls at the age ranges of 10 to 19 years goes to the puberty stage without adequate knowledge of sexual and reproductive health.¹⁴ Moreover, women are uncomfortable to discuss reproductive health issues such as "menses" as it is having a social taboo and thus adolescent girls may be bereaved of vital information needed for their reproductive health.^{15,16} "Even the little information they receive most commonly from religious institutions, peers, family member is often selective and surrounded by misperceptions".¹⁷ For instance, in developing countries such Nigeria, people often perceive menstruation as something happened as a sign of diseases among others.¹⁷⁻²¹ Thus, adolescent girls perceive menstruation as something embarrassing that should be kept hidden.¹⁹⁻²² This can impact adolescent girls to have mental, emotional and physical problems.²³⁻²⁵ The condition often predisposes female adolescents to poor concentrations during social activities, psychological trauma, poor academic performance, school absenteeism among adolescent girls.^{26,27}

The poor knowledge of hygienic practice during menstrual bleeding among adolescents' girls may affect their sexual health.²⁸ Thus, women with better understanding of menses as a normal physiological change among female adolescents will have safe and clean way of managing their menstrual bleeding.^{19,28,29} Moreover, study have reported that adolescents' girls have often experienced feelings of fear, confusion and shame during their menstruation period as a result of smell, leakage, staining of clothes and dropping of sanitary materials during their class schedules.³⁰ Study have reported that poor knowledge about menstrual hygiene has impacted negatively on the female adolescent's health leading to reproductive and genitor-urinary tract infection, cervical cancer, school absenteeism, or drop-out, poor academic performance, poor concentration, lower self-esteem and poor quality of

life.^{31,32} It is also reported that without prior knowledge, the first menstrual process is often a panicking and traumatic moment for a girl. Such that, women, usually get the experience differently. Some may not be aware before the menarche; if they are, they could accept it as a general physiological change and prepare for the management via hygienic practices.³³

Despite several studies on the knowledge and awareness of menstrual hygiene practices among adolescent, there is little available research in Ebonyi State and Ikwo LGA secondary schools in particular. Thus, in this study, the researchers sought to ascertain knowledge and menstrual hygiene practices among adolescent secondary school girls in Ikwo local government area in Ebonyi State, Nigeria.

METHODS

Study design and study area

A cross-sectional descriptive study was carried out with the objective to assess the knowledge and attitude towards menstrual hygiene practices among adolescent secondary school girls in Ebonyi state, Nigeria. The study was carried out from 11th July to 9th September 2021 among female secondary school adolescents in Ikwo local government area of Ebonyi State, Nigeria. The population of the study comprises of the 6,946 female secondary school students in 23 secondary schools in the local government area.³⁴ The secondary schools in the area are situated in the remote areas with inhabitants mostly farmers. Given to the rural dwelling of the students in the area, gaining access to the reproductive health information may not always be feasible. Hence, researcher's decision to use the location for present study.

Sample size

We calculated the sample size using Taro Yamen, as define by Uzoagulu in determining the sample size thus:

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

Where n is sample size; N is the estimated population size which is 6,946; 1 is the constant, e is the desired level of precision, which is at five percent (0.05), where we desire a 95% confidence level based on this our sample size (n)=399.9 approximately 400. However, out of 400 participants the was collected for the study, 315 were properly filled and fit for analysis

Inclusion criteria/ exclusion criteria

All female students aged 10 to 19 years who are registered, available, and are willing to participate in the study was included. Exclusion criteria were those female students below the age of 10 years, and those who were

critically sick and not available during data collection and unable to communicate were excluded from the study.

Ethical consideration

The study material was reviewed and approved by the ethical review board of Alex Ekwueme federal university, Ndufu-Alike (AE-FUNAI), Ebonyi State, Nigeria. Prior to the administration of the instrument for data collection, the participants' confidentiality was guaranteed and they were assured of maximum protection. The study was explained to the participants and each respondent was assured that all information would be held in confidence and would be used only for the purpose of the study. A written informed consent was obtained from each participant. This adolescent's age range of 10 to 19 years was adopted for the present study to elicit information on the knowledge and attitude towards menstrual hygiene practices among adolescent secondary school girls in Ebonyi state, Nigeria

Method of data analysis

The completed copies of the questionnaire were collected, coded and analyzed using the statistical package for social science (IBM SPSS version 25). The research questions were answered descriptively using percentage and frequency distribution tables. The Likert scale questions were judged based on weighted mean 2.5 such that items with weighted mean less than 2.5 were rejected. Some of the items that were negative questions were reversely coded accordingly. The hypotheses were tested using chi-square at 0.05 level of significance.

RESULTS

Socio-demographic characteristics of the participants

The socio-demographic characteristics of the participants were presented in Figure 1 and 2. Result shows that

majority of the participants 156 (49.5%) and 138 (43.8%) were between the ages of 15-19 years and 10-14 years, respectively. The classes from which the students were drawn from seems to be evenly distributed though majority 60 (19.0%) were in SS3 and 56 (17.8%) were in JSS1.

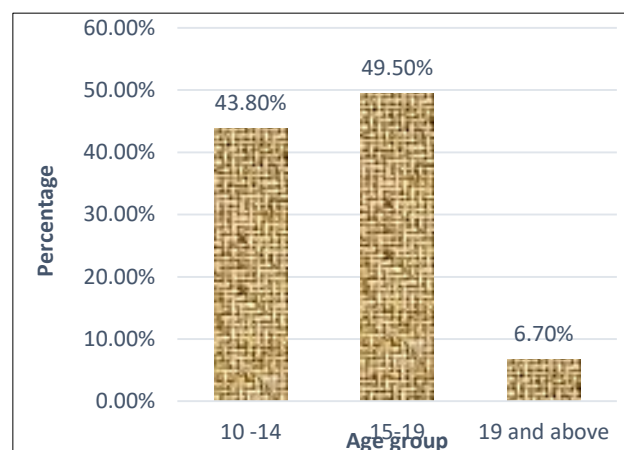


Figure 1: The age group of the participants.

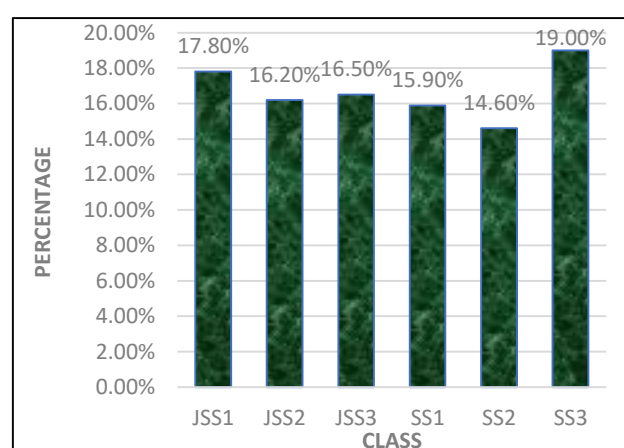


Figure 2: The class distribution of the participants.

Table 1: The knowledge of menstrual hygiene practices among the participants.

Knowledge items	True (%)	False (%)
Change sanitary pads after 6 hours	266 (84.4)	49 (15.6)
Changing of pads frequently can cause itching in the private part	200 (63.5)	115 (36.5)
Wash genital tract with clean water during menstruation	269 (85.4)	46 (14.6)
Wrap used sanitary pads with paper after removal to avoid offensive odour	252 (80.0)	63 (20.0)
While menstruating, wash the genital tract with soap	165 (52.4)	150 (47.6)
Wash genital tracts from front to back during menstruation	264 (83.8)	51 (16.2)
Wash and sun-dry an absorbent material like towels before using them.	250 (79.4)	65 (20.6)
Sanitary pads should be disposed immediately after use	259 (82.2)	56 (17.8)
Put back used sanitary pads after defecating	164 (52.1)	151 (47.9)
Absorbent materials should be improperly disposed after removal	156 (49.5)	159 (50.5)
Wash hands with soap and water after disposal of used absorbent material	253 (80.3)	62 (19.7)
Re-use pants while menstruating wherever you do not have strength to wash and replace the already used ones	143 (45.4)	172 (54.6)

Table 1 shows that majority 266 (84.4%) of the adolescent girls change sanitary pads after 6 hours and 269 (85.4%) responded positive that genital tract should be washed with water during menstruation. Greater proportion 264 (83.8%) of the adolescent girls wash genital tracts from front to back during menstruation, and 259 (83.2%) of the adolescent girls were that sanitary pads should be disposed immediately after use.

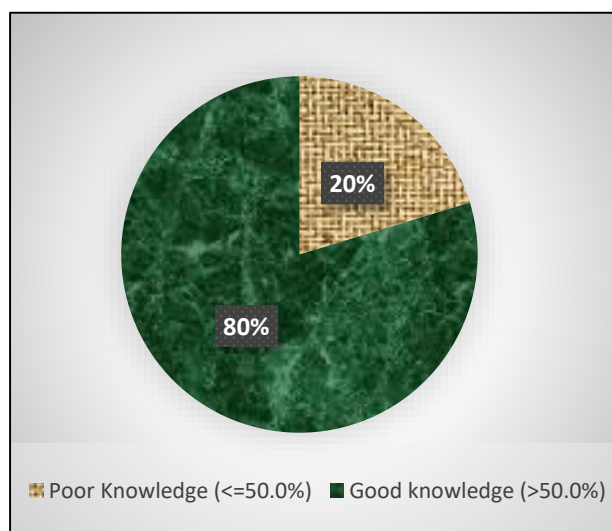


Figure 3: The level of knowledge of menstrual hygiene practices among adolescent secondary school girls.

Figure 3 shows the level of knowledge of menstrual hygiene practices among the adolescent school girls. Majority 251 (79.7%) of the girls have good knowledge while 64 (20.3%) has poor knowledge of menstrual hygiene practices.

Table 3: Knowledge of menstrual hygiene practices and age among adolescent secondary school girls.

Age group (years)	Level of knowledge, N (%)		Chi square	P value
	Poor	Good		
10-14	39 (60.9)	99 (39.4)	10.862	0.004
15-19	24 (37.5)	132 (52.6)		
19 and above	1 (1.6)	20 (8.0)		

Table 3 shows that there is a significant association between the knowledge of menstrual hygiene practices among the adolescents and their age groups (Chi square=10.862; $p=0.004<0.05$).

This implies that greater proportion 60.9% of the adolescent girls with poor knowledge were between the age group of 10-14 years while majority of the adolescent girls with good knowledge 52.6% were between 15-19 years.

Table 4: Knowledge of menstrual hygiene practices and class level among adolescent secondary school girls.

Class level	Level of knowledge, N (%)			Chi square	P value
	Poor	Good	Total		
JSS1	21 (32.8)	35 (13.9)	56 (17.8)	23.601	0.0
JSS2	17 (26.6)	34 (13.5)	51 (16.2)		
JSS3	6 (9.4)	46 (18.3)	52 (16.5)		
SS1	7 (10.9)	43 (17.1)	50 (15.9)		
SS2	5 (7.8)	41 (16.3)	46 (14.6)		
SS3	8 (12.5)	52 (20.7)	60 (19.0)		

Table 4 shows that there is a significant association between the level of knowledge and the class of study on menstrual hygiene practices among the participants (Chi square=23.601; $p=0.000<0.05$). This implies that greater proportion 32.8% and 26.6% of the adolescent girls with poor knowledge were in JSS1 and JSS2 respectively while majority of the adolescent girls with good knowledge 20.7% and 18.3% were in SS3 and JSS3, respectively.

DISCUSSION

Knowledge of menstrual hygiene among adolescent secondary school girls in Ikwo local government area, Ebonyi State, Nigeria

The result of the study in Table 1 revealed that the

knowledge of menstrual hygiene practices among adolescent secondary school girls in Ikwo local government area, Ebonyi State, Nigeria was high, this was indicated by 251 (79.7%) of the girls having good knowledge.

This was not actually expected as the area of study is located in a rural environment where it seems that the adolescent girls do not have access to factual information about health and matters surrounding good living. The result is in line with other study who reported that 75% of girls had good knowledge about menstruation and used sanitary pads during menstruation.^{35,36}

Contrastingly, the current findings were inconsistent with the study who reported that 45.5% of adolescent girls had good knowledge about menstruation and the use of sanitary pad during menstruation.³⁷

Knowledge of menstrual hygiene among adolescent secondary school girls in Ikwo local government area, Ebonyi State, Nigeria based on age

Findings show that greater proportion 60.9% of the adolescent girls with poor knowledge were between the age group of 10-14 years while majority of the adolescent girls with good knowledge 52.6% were between 15-19 years. This result may be as a result of experience, this is to say that the older adolescents have been experiencing menstruation for a long time now and know what it entails. And the younger adolescents may have just started menstruation and do not know much about menstruation. This finding agrees with the study who attributed factors that were significantly associated with good knowledge of menstrual hygiene and menstruation to include older adolescent age (15-19), adolescents whose mother have education beyond secondary school and those living with their parents.^{38,39}

Knowledge of menstrual hygiene among adolescent secondary school girls in Ikwo local government area, Ebonyi State, Nigeria based on class level

The result shows that greater proportion 32.8% and 26.6% of the adolescent girls with poor knowledge were in JSS1 and JSS2 respectively while majority of the adolescent girls with good knowledge 20.7% and 18.3% were in SS3 and JSS 3, respectively. Coming to this, it is expected that the SS3 students will have better knowledge on menstrual hygiene practices than most of the other classes, this is because, they must have been under various classes and teachers that taught them menstrual hygiene. On the other hand, it was surprising that the JSS3 classes showed better knowledge than even SS1 and SS2. It may be that one of the subjects they offer for example, (Integrated science) widened their horizon on the topic just before the research was carried out. The finding was in agreement with the studies who reported age and class level as a predicting factor among majority of adolescent school girls who had poor knowledge regarding menstruation and their hygienic practices.^{1,40,41}

Limitations

The study tried to evaluate the knowledge and hygienic practices regarding menstruation hygienic practices among female adolescents using anonymous survey research questionnaire where the participants where the participants had the opportunity to fill without being observed so as to minimize social desirability bias. However, the study is not without some limitation. Such as, cross-sectional nature of study design might not show cause-and-effect relationships between study variables. Therefore, further longitudinal and mixed approach study design is recommended.

CONCLUSION

Majority of adolescent secondary school girls had good

knowledge on menstruation and their hygienic practices. Although, older girls aged from 15-19 years had better knowledge of menstrual hygiene. The younger age group and those in lower classes are still bereaved of knowledge of menstruation and their hygienic practices. Due to the lower age and class including prematurity these groups may be mostly affected and venerable as a result of lack of prior knowledge about menstruation and good menstrual hygiene practices. In this regard, health educators and parents have a great role to play in factual health knowledge, dissemination and awareness creation on tropical health issues such as menstrual hygiene practices among female adolescents.

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