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MENSTRUAL HYGIENE PRACTICES AMONG ADOLESCENTS IN SELECTED SECONDARY SCHOOLS AROUND THE UNIVERSITY OF IBADAN, NIGERIA.

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ABSTRACT

Menstrual hygiene is vital to the health, well-being, dignity and productivity of women and girls. The study assessed menstrual hygiene practices among adolescents in selected secondary schools around the University of Ibadan. The study was descriptive. A semi structured questionnaire was used to collect data from 381 respondents. Sanitary pad was found to be the most common (76.6%) menstrual protective materials used by the respondents. The choice of menstrual hygiene product by majority (42.3%) of the respondents was not dependent on any particular reason. Most (93.7%) of the respondents had information about menstruation before they started and mothers were the source of information for most (87.0%). Only 30.1% of respondents' reported that food intake affected the flow menstruation. It is therefore pertinent that mothers be well equipped to give the girl child appropriate information about menstrual hygiene practices, in order to promote the health of the adolescent girls.

Introduction

Menarche is one of the key events that occur in the life of a girl because it marks the beginning of her reproductive life. Before the onset of menstruation, it is necessary that girls should have had a previous education about the facts of menstruation and its physiological, psychological, emotional and social implications as this will aid their smooth transition into this phase of their life. Menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. Menstruation is often regarded as taboo and has many negative cultural associations with it. This can result in women and girls being forced into seclusion and prevented from taking part in daily activities. The lack of privacy, necessary infrastructure for cleaning and washing, and hygiene in school toilets are major reasons for girls being absent from school during menstruation[1].

Poor menstrual hygiene may cause stigma and ill health, and can lead to school absenteeism and increased school drop-out rates[2]. Due to the misconception that is associated with menstruation, most adolescents do not have adequate information about how to maintain hygiene during menstruation[3]. In order for women and girls to live healthy, productive and dignified lives, it is essential that they are able to manage

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menstrual bleeding effectively. This requires access to appropriate water, sanitation and hygiene services, including clean water for washing clothes used to absorb menstrual blood and having a place to dry them, having somewhere private to change clothes or disposable sanitary pads, facilities to dispose used cloths and pads, and access to information to understand the menstrual cycle and how to manage menstruation hygienically[4]. It is also necessary to promote better awareness among women and men to overcome the embarrassment, cultural practices and taboos around menstruation that impact negatively on women and girls' lives, and reinforce gender inequities and exclusion. According to a previous study[5], menstrual hygiene is an issue that is insufficiently acknowledged. Lack of adequate privacy and sanitation of toilets for school girls; make them vulnerable to mental, emotional and physical problem especially during their menstruating days. Poor menstrual hygiene may directly or indirectly hinder the achievement of several Millennium Development Goals like MDG 2,3,5,7 and 8 (Kolawole, Adeigbe, Zaggi & Owonibi, 2014)

MDG 2 (Achieve universal primary education) Menstruation is an important cause of absenteeism and even school dropout.

MDG 3 (promotes gender equality and empowers women).Taboos and misconceptions regarding menstruating girls and menstrual hygiene evolves in gender inequality and degradation of women empowerment

MDG 5 (Improve maternal health) Poor menstrual hygiene may promote the risk for Reproductive Tract Infection which is a morbidity that is suffered by many women with hushed silence.

MDG 7: Ensure environmental sustainability. (Indiscriminate disposal of sanitary napkins and other absorbent materials are not ecologically friendly.)

MDG 8: (Global partnership for development) Absence of a structured program or policy for upliftment of menstrual hygiene, thus neglecting MDG 8.

This study therefore, assessed:

- the level of knowledge of the participants on menstruation?
- the menstrual hygiene practices of participants?
- the factors associated with menstrual hygiene practices?

Materials and Methods

This descriptive study was carried out in four selected secondary schools, two within the university, and two outside the university but very close to the University. The schools were Abadina College (A), International School Ibadan (B), Immanuel College , UI road (C) and Ajibode Grammar school (D). They were chosen because of their proximity to the university, a citadel of learning. At each school, the students were divided into strata using their respective class as the determining characteristics of the strata and the students were then randomly selected. The study population was statistically determined using the formula[6]:

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

The value obtained is 381.

Ethical approval was received prior to data collection from Oyo State Ethical Review Committee. Consent was also obtained from Principals and teachers as well as the participants who indicated their willingness to participate having understood the details and the purpose of the study.

Data collection was by means of structured questionnaire containing 39 items developed after an in depth literature review. It consists of four sections: section A consists of questions to elicit data on the demographic variables; section B evaluated participants knowledge and experiences regarding menstruation; section C consists of questions evaluating various menstrual hygiene practices and commonly used protective materials; while section D consists of questions that elicited factors associated with menstrual hygiene practices. Face and content validation of the instrument was done. The instrument was scrutinized by thorough literature review. No previous pilot study was done prior to the study. Data collection was done during break times in the different schools with the assistance of the teachers. Data was analysed using frequency and percentages and cross tabulations

Results

Only 347 of the 381 questionnaires distributed were valid for analysis giving 91.0% response rate. Sixty students were from Abadina College, 95 were from International School, Ibadan, 86 were from Immanuel College and 106 were from Ajibode Grammar School.

Respondents' socio-demographic characteristics

Ninety five (27.4%) of the respondents were Junior Secondary School students while 252 (72.6%) were students of senior secondary schools. A higher percentage 270 (77.9%) of the respondents' parents had post- secondary school education. Findings showed that 232 (66.9%) of the participants attained menarche (started menstruation) between age 11 and 13 years, Table 1 shows other socio demographic details.

Respondents' knowledge of menstruation

Table 2 shows details of participants' knowledge of menstruation. Most 299 (93.7%) of the respondents had known about menstruation before they started and 328 (94.5%) knew that menstruation is the monthly shedding of blood.

Respondents' reported menstrual hygiene practices

The study revealed that 197 (56.8%) of the respondent's menstrual period lasts from 2 - 4 days and 147 (42.3%) agreed that their choice of protective material was not influenced by any particular reason however use of sanitary pads was the most common 266 (76.7%) protective materials used by the respondents (Figure 1). Use of nylon pants were also the most 199 (57.3%) common type of pants used when menstruating. Table 3 shows other details.

Respondents' reported experience with menstruation

The study showed that 263 (75.8%) of the respondents reported that activity affect their flow; while only 104 (30.1%) reported that food intake affect their flow. Also, in categorizing their menstrual flow, 249 (71.8%) categorized their flow as normal (Figure 2). Among the study participants, 308 (88.8%) reported that change of protection depends on the flow. In addition, 264 (76.2%) of the respondents claimed they wash hands before changing their protective materials while 224 (64.5%) reported having access to toilet facilities during menstruation. Also 83 (23.9%) claimed that menstruation keeps them from going to school, while 239 (69%) of them reported cleaning up correctly from front to back.

Influencing factors on participants' menstrual hygiene practices

Table 1: Socio-demographic characteristics of Respondents

Demographic Characteristics	Frequency (N)	Percentage
Class		
Junior Secondary School	95	27.4
Senior Secondary School	252	72.6
Religion		
Christianity	191	55.1
Islam	151	43.5
No response	5	1.4
Age		
10 -13	89	25.6
14 – 17	236	68.1
No response	22	6.3
Age at Menarche		
8-10	88	25.4
11-13	232	66.9
14-16	23	6.6
No response	4	1.1
Father's education (Highest level)		
Primary School	15	4.2
JSS	28	8.1
SSCE	59	17
OND	62	17.9
HND	32	9.2
NCE	3	0.9
B.Sc	91	26.2
Postgraduate	27	7.9
No response	30	8.6
Mother's education (Highest level)		
Primary School	15	4.2
JSS	27	7.9
SSCE	46	13.3
OND	67	19.3
HND	41	11.8
B.Sc	106	30.5
Postgraduate	36	10.4
No response	9	2.6

Table 2: Respondents' knowledge of menstruation

Variable	Yes		No	
	Freq	%	Freq	%
Menstruation starts at puberty	322	92.8	18	5.2
Menarche is onset of puberty	65	18.7	282	81.3
Menarche is onset of menstruation	156	45.0	191	55.0
Menstruation is monthly shedding of blood	328	94.5	11	3.2
Menarche is a major stage for girls	194	36.9	28	8.1
Heard or knew about menstruation before started	299	93.7	20	6.3

Table 3: Respondents' reported menstrual hygiene practice

Statement	Frequency (N)	Percentage
Days menstrual period lasts		
2 – 4 days	197	56.8
5 – 7 days	140	40.3
8 days and above	8	2.3
No response	2	0.6
Who did you tell first about Menstruation?		
Mother	225	64.8
Sister	95	27.3
Teacher	6	1.8
Brother	8	2.3
Father	13	3.8
Reasons for Choosing type of Protection		
Cost	38	11.0
My friends	24	6.9
My sister	43	12.4
My mother	91	26.2
No particular reason	147	42.3
No response	4	1.2
Carry extra protective material during Menstruation		
Yes	285	82.1
No	58	16.7
No response	4	1.2
Type of Pants used during Menstruation		
Cotton	126	36.3
Nylon	199	57.3
Cotton & Nylon	7	2.1
Others	15	4.3
Disposal of Protection Material		
Burying	40	11.5
Burning	86	24.8
Water Closet	53	15.3
Pit latrine	85	24.5
Waste bin	44	12.7
Washing	5	1.4
Others	20	5.8
No response	14	4.0

Table 4: Relationship between respondents' mothers' education and use of protective materials

Mother's Education	**Use of sanitary materials**	**Use of non-sanitary materials**	**Total**
Primary school	12 (3.4%)	3 (0.8%)	15 (4.2%)
Secondary school	52 (15.1%)	21 (6.1%)	73 (21.2%)
Colleges	83 (23.9%)	25 (7.2%)	108 (31.1%)
University education	113 (32.6%)	29 (8.4%)	142 (40.9%)
No response	6 (1.7%)	3 (0.8%)	9 (2.6%)
Total	266 (76.7%)	81 (23.3%)	347 (100%)

Chi-square (X^2) value = 2.406, df = 3, P.value = 0.5, Decision –Not significant

Table 5: Relationship between respondents' fathers' education and use of protective materials

Variables	**Use of sanitary materials**	**Use of non-sanitary materials**	**Total**
Primary school	12 (3.4%)	3 (0.8%)	15 (4.2%)
Secondary school	63 (18.2%)	24 (6.9%)	87 (25.1%)
Colleges	74 (21.4%)	23 (6.6%)	97 (28%)
University education	96 (27.7%)	22 (6.4%)	118 (34.1%)
No response	21 (6%)	9 (2.6%)	30 (8.6%)
Total	266 (76.7%)	81 (23.3%)	347 (100%)

Chi-square (X^2) value = 2.408, df = 3, P.value = 0.5, Decision – Not significant

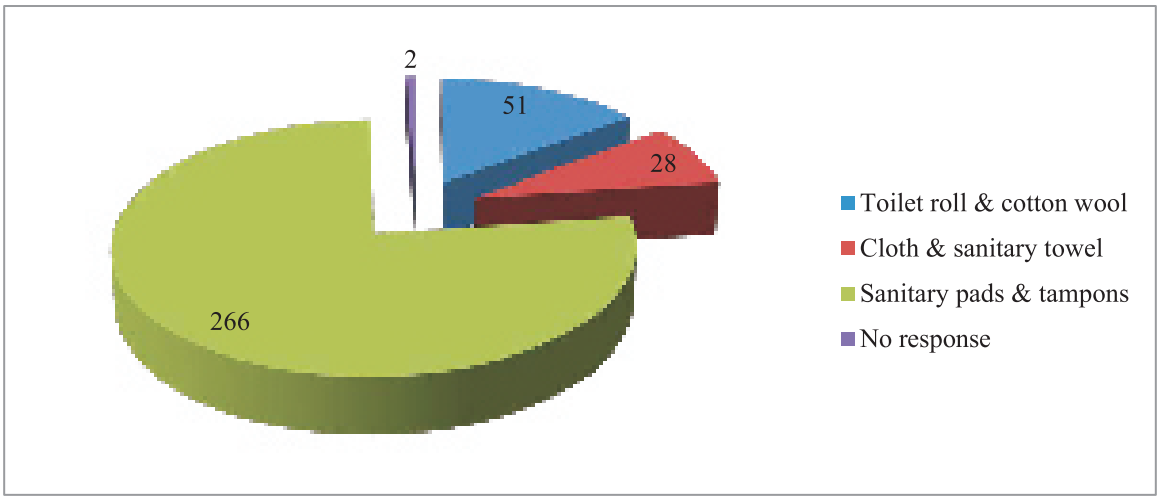

Figure 1: Type of protective materials used during menstruation

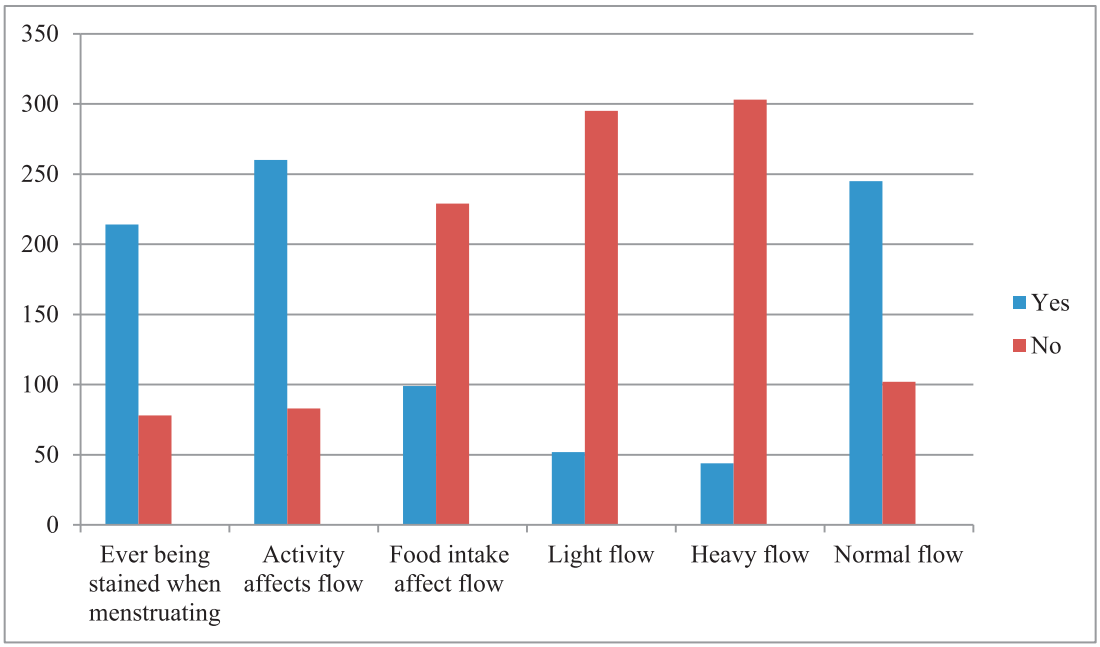

Figure 2: Respondents' reported experience with menstruation

Appendix I: Calculation of sample size

n= required sample

N= total population (sample frame)

e= error of tolerance which is 0.05

n=2566

---------- =328.7

$1+2566(0.0\ 5)^2$

2566

1+2566x0.0025

$= \frac{2566}{}$

1+6.415

$= \frac{2566}{}$

7.415

= 346.06

Approximately 346 adolescents

Attrition rate: 10% of sample size

10% of 346= 34.6

Approximately 35

So 346 + 35 = 381

The study showed that Most of the participants 284 (81.9 %) of the respondents did not believe that their religion influenced their menstrual hygiene practices and 264 (76.1%) did not also believe that cost was a factor in choosing their menstrual hygiene product. The participants further stated that neither culture 243 (70.1%) nor friends 258 (74.4%) influenced their choice. However, 185 (53.3%) of the respondents' choices of menstrual hygiene product were influenced by relations.

Respondents' sources of information on menstruation

The leading five sources of information were mother only 223 (64.4%), followed by the combination of mother, sister and teacher 62 (18%) teachers only 18 (5.1%) , sisters only six (1.8%) and Mass Media only five (1.5%). Only three (0.9%) indicated father only and one (0.3%) respondent indicated mother and father. Majority 225 (64.8%) of respondents informed their mother, 95 (27.4%) sisters, 13 (3.7%) Fathers, eight (2.3%) brothers and six (1.7%) teachers when they experienced menarche.

Hypothesis: There is no relationship between respondents' parental education and use of protective materials

The study reveals that there is no relationship between the parental education and the use of protective materials as shown in tables 4 and 5.

Discussion

The findings of this study showed that majority of the participants were from senior secondary school within the age bracket of 14 to 17 years. A large

percentage of the participants reported that they were within the age bracket of 11 – 13 years at menarche. This is supported by a previous study[6], which stated the age range at menarche to be 12 – 13 years. Most of the parents of the respondents had post-secondary education; this may be associated with the early menarche reported by most as they may likely be exposed to good nutrition which is generally associated with early menarche. Also, the level of knowledge on menstruation among the participants was quite high, most (87.0%) of them reported their mothers to be their source of information, while none of them reported nurses or health workers as a source of information. This is supported by a study[11], in which the findings revealed that mother only was the source of information on menstruation for 60 out of 160 respondents. Also, this suggests that nurses and other health workers are silent about giving information to adolescents especially secondary school girls on menstruation and menstrual hygiene practice. This is consistent with a study[12], in which out of 182 respondents, none of them had information about menstruation from any health worker. Majority of the participants understood that menarche is onset of menstruation and that it is a major stage for girls.

The use of sanitary pad was found to the most commonly used protective materials among the participants, however, the statistical test done did not attribute this to the education of either of their parents. This is consistent with a study[8] on menstrual and menstrual hygiene amongst adolescent school girls in Kano where most of the adolescents used sanitary pads as their protective materials. However, this is contrast to another study[7] on menstrual knowledge and practices amongst secondary school girls in Ile –Ife, Nigeria where majority (66.3%) of 352 girls studied were not using sanitary materials as their menstrual absorbent materials. Although, the time gap between this study and that of Ile-Ife which is almost two decades interval could be responsible for the disparity in use of sanitary materials as menstrual absorbent materials.

In addition, majority (71.8%) of the participants reported normal flow during menstruation. This could suggest why most (97.4%) of the participants changed their absorbent materials about 1-3 times daily; this is consistent with a previous study[7] among adolescents who changed their menstrual dressings about 1-5 times daily. Also, the duration of menstruation by most of the girls was reported to be between 2 – 4 days. This is also consistent with the study of the range of duration of menstrual flow[7] which stated 3 – 4 days in 95.2% of the study population.

Furthermore, this study showed that most of the respondents have access to toilet facilities during menstruation, although the study was not specific about the cleanliness of the toilet, as it was specified in another study[5] where majority of the girls stated that their toilets were cleaned only on weekends. Hence, it could be deduced that even though the study was carried out among students of public schools, yet there was availability of water for the respondents as majority claimed to wash their hands after changing protection which is contrast to another study[5], where hand washing after using the toilet was often skipped. Also most (83.9%) of the respondents reported the use deodorant during their menstruation which was supported by a study[10] on self-care practices of menstrual hygiene among adolescents school girls in Amassoma Community, Bayelsa State; using 209 girls which reported that majority (88.5%) of the girls used deodorants during their menstruation.

Finally, majority of the respondents' menstrual hygiene practices were reported not to be influenced by religion, culture, cost or friends. However, more than half (53.3%) of the participants reported that their menstrual hygiene practices were influenced by relations. Also, respondents' experiences with menstruation revealed that activities

affect the flow of 75.8% of the respondents, while only 30.1% respondents reported that food intake affects their flow.

Conclusion

According to Water, Sanitation and Hygiene initiative (WASH)[9]; for women and girls to live healthy, productive and dignified lives, it is essential that they are able to manage menstrual bleeding effectively. This requires access to appropriate water, sanitation and hygiene services, including clean water for washing clothes used to absorb menstrual blood and having a place to dry them, having somewhere private to change clothes or disposable sanitary pads, facilities to dispose used cloths and pads, and access to information to understand the menstrual cycle and how to manage menstruation hygienically.

However, this study has provided answers to many questions about how hygienic the menstrual practice of the adolescent girls at the study setting. More important to note is that nurses should be more involving in giving information about menstruation and menstrual hygiene practices to adolescent girls. This can form part of school health services as well as part of public health awareness programs.

Therefore, all stakeholders in adolescent reproductive health should be involved in promoting and giving information on menstrual hygiene practices to adolescent girls in order to promote the health of the adolescent girls.

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