

Knowledge of Personal Hygiene During Menstrual Period Among Female Students of Public Senior Secondary Schools in Maiduguri

By

Lateefat Nana Giwa Imam

Department of Physical and Health Education
University of Maiduguri

&

Abdullateef Olawuyi Yahya Imam

Department of Pharmacy
Obafemi Awolowo University Teaching Hospital, Osun State

Abstract

This study assessed knowledge of personal hygiene during menstrual period among female senior students in public schools in Maiduguri. The purpose this study is to assess the knowledge and application of personal hygiene during menstrual period among female senior students in public schools in Maiduguri. The study adopted cross-sectional method design. The population and sample of this study consist of 6,779 and 364 students respectively. Multi-stage sampling technique was used for this study, and name of instrument for this study is termed Knowledge of students on personal hygiene during menstrual period among female senior secondary school students in Maiduguri. Split-half reliability was used to test the reliability of the instrument among 20 students. The data collected were analysed using Crobat Alpha. The questionnaire was declared reliable with an acceptable threshold of 0.8. The result revealed that 99(27.1%) of the students were not aware that use of sanitary pad is part of hygiene during menstrual period, while 142 (39.0%) of students did not know that sanitary material should be changed twice or three times in a day. The hypothesis tested indicates that there is significant difference in knowledge of personal hygiene during menstrual period among female senior secondary school students. It was concluded that knowledge of students towards personal hygiene during menstrual period among senior female secondary students in public schools in Maiduguri is fair. Therefore, more enlightenment education that will create awareness on the importance of observing menstrual hygiene both at home and in school, and this will help them not only on menstrual hygiene but also personal hygiene.

Keywords: *Knowledge, Personal hygiene, Menstrual period*

Introduction

Personal hygiene (PH) can be defined as the principle of maintaining cleanliness and grooming of the external body (Johnson, 2015). It also refers to all activities, actions and practices carried out by an individual to keep the body clean and healthy. There are so many benefits attached to personal hygiene such as prevention of diseases, quick recovery from illnesses, social acceptance by people, emotional satisfaction and good personal appearance. Personal Hygiene is the first step to good grooming and good health and this involves all measures taken by individuals to preserve his or her health (Johnson, 2015). According Johnson (2015), improved standard of hygiene will prevent health problems like dandruff, athletes' foot, body odors, pin worms, excessive ear wax, gastro-intestinal diseases.

Menstrual hygiene deals with the special health care needs and requirements of women during monthly menstruation or menstrual cycle (Irinoye, Ogungbemi & Ojo, 2013). These areas of

special concern include choice of the best “period protection” or feminine hygiene products; how often and when to change the feminine hygiene products; bathing care of the vulva and vagina as well as the supposed benefits of vaginal douching at the end of each menstrual period are of paramount important. Provisions for good menstrual hygiene include home-made remedies like pieces of cotton cloth which are either placed on a woman’s undergarment or on a homemade belt that wraps around the waist (Irinoye, Ogungbemi & Ojo, 2013). These cloths can be washed, dried and used again. Available commercial products for women’s hygiene during menstruation include pads, tampons and cups.

Menstruation is a natural phenomenon among matured females who experience shedding of blood for 1-7 days every month from the age of maturity until menopause (Abera & Menarche, 2003). Various aspects such as physiology, pathology and psychology of menstruation have been found to associate with health and wellbeing of women; hence it is an important issue concerning morbidity and mortality of female population. On the other hand, hygiene-related practices during menstruation are of considerable importance for reproductive health, poor practices increase vulnerability to reproductive tract infections (Dasgupta & Sarkar, 2008). Menstrual hygiene which is one of the components of personal hygiene is a natural process that occurs monthly in healthy adolescent girls and premenopausal adult women.

In normal cases a girl child starts to menstruate at age of 12, however, in rare cases it may start earlier than 12 or over 12 years. Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls as patterns that are developed in adolescence are likely to persist into adult life. Proper knowledge of menstrual hygiene like how to use of sanitary pads and regular of the genital area, is of paramount important during menstruation period. Women and girls of reproductive age need access to clean and soft absorbent sanitary products, which in the long run protect their health (Harvey & Reed, 2012). Menstrual hygiene and management is an issue that is insufficiently acknowledged and has not received adequate attention. Adolescent girls constitute a vulnerable group not only with respect to their social status but also in relation to health. It has been reported that majority of girls from low-income countries have no proper knowledge of menstrual hygiene, as a result of this, they are not well informed and prepared, and majority of girls start menstruating without knowing what is happening (UNESCO, 2014). For this reason, girls in low-income countries experience stress, confusion, shame, and fear due to a lack of knowledge and poor menstrual hygiene practices.

Additionally, there is a report of teasing and harassment from boys and classmates, not standing in class to answer questions, concerns about odor, and an embarrassing menstrual leak in the classroom among adolescent girls (Miuro, al. 2018). If not properly managed, menstruation can interrupt daily life adolescent girls. Adolescents especially experience extremely painful periods which can affect their attendance and performance at school. A lack of adequate facilities and materials, restrictions on girls’ movements during their period and feeling ashamed or 'unclean' also contribute to girls skipping school. Taboos, myths and shame surrounding menstruation can lead to teasing, shaming and exclusion from daily activities and have a negative effect on girls' feelings of dignity. Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive infection and its consequences. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. It is against above background; this study was undertaken to assess knowledge of personal hygiene during menstrual period among female senior students in public schools in Maiduguri.

Objective of the Study

To determine the perception and knowledge of personal hygiene during menstruation among public senior secondary school students in Maiduguri.

Research Question

What are the perception and knowledge of personal hygiene during menstruation among public senior secondary school students in Maiduguri?

Research Hypothesis

HO₁: There is no significant difference in perception and knowledge of personal hygiene during menstruation period among public senior secondary school students in Maiduguri

Methodology
This study adopted cross-sectional survey research design.

The population of this study consist of 6,779 students, while the sample size is 364 using Krejcie & Morgan 1970 sample size determination table. The sample of this study selected using multi-stage sampling technique, there are 8 senior public secondary school in MMC, out of which, 6 of were purposefully selected as these are girls only public secondary schools. Proportionate sample technique was used select respondents because the number of students in each school differs while accidental sampling technique was used in selecting students from selected classes.

Table 1: List of Public Senior Secondary Schools in Maiduguri Metropolis showing Population and Sample

S/No.	Name of School	S. S. 1	S. S. 2	S. S. 3	Population	Sample
1.	Brigd.Maimalari Day Sec. Sch. M/guri	121	160	210	491	27
2.	Govt. Day Sec. Sch. Old Maiduwuri	330	315	197	842	45
3.	Govt. Day Sec. Sch. Lamisula	610	335	437	1,382	74
4.	Govt. Day Sec. Sch. Zajiri	105	303	405	813	44
5.	Govt. Girls Sec. Sch. M/guri	902	895	906	2,703	145
6.	ShehuGarbai Sch. Maiduguri	117	211	220	548	29
	Total	2,185	2,219	2,375	6,779	364

Source: Borno State Ministry of Education, 2022

Instrument:

The instrument used for this study is termed as Knowledge of students on Menstrual hygiene among senior secondary school students in Maiduguri. It is divided into two (2) sections; (a) demographic information of the respondents' e.g age, class (b) perception and knowledge of students on menstrual hygiene which include meaning of menstruation, causes of menstruation among others; adapted from (Ameade & Garti, 2016). The instruments were validated using face and content validity by expert in Department of Physical and Health Education University of Maiduguri. The reliability of the instrument was tested in one of the private schools in Maiduguri. Split-half reliability was used to test the reliability of the instrument among 20 students. The data collected were analysed using Cronbach Alpha. The questionnaire was declared reliable with an acceptable threshold of 0.8.

Method of Data Analyses

Descriptive statistics of frequency counts and percentages were used to analyze demographic information of the respondents while inferential statistics of independents t-tests were used to test the hypotheses at 0.05 level of significant.

Result

Demographic information of the respondents

Table 2 n=364

S/N	Variables	Frequency	Percentage (%)
1.	Age		
	12—14	157	43.1%
	15—17	207	56.8%
2.	Class		
	SSS 1	106	29.1%
	SSS 2	119	32.6%
	SSS 3	139	38.1%

Table 2 which is demographic information of students shows 157(43.1%) of the respondents were between the ages of 12—14, whereas most of the participants 207 (56.8%) were between the ages of 15—17. Similarly, SSS1 had the least respondents 106 (29.1%), follow by SSS2 119 (32.6%), then SSS3 which had 139 (38.1%) students. This implies that majority of the students are in their final year class and are between the ages of 15—17.

Research question 1: What is the respondent’s knowledge on menstrual hygiene?

Table 3: Knowledge of Respondents Regarding Menstrual Hygiene

n=364

S/N	Questions	SA	A	D	SD
1.	I know that sanitary material should be used during menstruation	145(39.8%)	120(32.9%)	70(19.2%)	29(7.9%)
2.	I know that during the menstrual period sanitary material should be changed twice or three times in a day	127(34.8%)	95(26.0%)	75(20.6%)	67(18.4%)
3.	I know that clean of genitals after urinating during menstruation is part of menstrual hygiene	155(42.5%)	102(28.0%)	65(17.8%)	42(11.5%)
4.	I know that increasing the number of times of bathing during menstruation is menstrual hygiene	138(37.9%)	100(27.4%)	81(22.2%)	45(12.3%)
5.	I know that bathing with soap and water during menstrual period is part of menstrual hygiene	141(38.7%)	98(26.9%)	79(21.7%)	46(12.6%)
6.	I know that clean of genitals with warm water after urinating during menstruation is better than cold water	117(32.1%)	93(25.5%)	98(26.9%)	60(16.4%)
	I know that proper disposal of material after used during menstrual period is part of menstrual hygiene	123(33.7%)	101(27.7%)	95(26.0%)	45(12.3%)

Table 3 which is on knowledge of respondents about menstrual hygiene showed that 145(39.8%) of the respondents strongly agreed that they know that sanitary material should be used during menstruation, 120(32.9%), agreed, 70(19.2%) disagreed, while 29(7.9%) strongly disagreed that sanitary material should be used during menstruation. The results on the table also indicated that 127(34.8%) of the students strongly agreed that during the menstrual period, sanitary material should be changed twice or three times in a day, 95(26.0%), agreed, 75(20.6%), disagreed, while 67(18.4%) strongly disagreed that during the menstrual period, sanitary material should be changed twice or three times in a day. Similarly, 155(42.5%) of the students strongly agreed that cleaning of genitals after urinating during menstruation is part of menstrual hygiene, 102(28.0%) agreed, 65(17.8%) disagreed, whereas 42(11.5%) of the students strongly disagreed that cleaning of genitals after urinating during menstruation is part of menstrual hygiene. Also, 138(37.9%) of our respondents strongly agreed that increasing the number of times of bathing during menstruation is menstrual hygiene, 100(27.4%) agreed, 81(22.2%) disagreed, 45(12.3%) strongly disagreed that increasing the number of times of bathing during menstruation is menstrual hygiene.

Moreover, 141(38.7%) of the students participating in this study strongly agreed that bathing with soap and water during menstrual period is part of menstrual hygiene, 98(26.9%) agreed, 79(21.7%) disagreed, while 46(12.6%) strongly disagreed that bathing with soap and water during menstrual period is part of menstrual hygiene. Consequently, 117(32.1%) strongly agreed that clean of genitals with warm water after urinating during menstruation is better than cold water, 93(25.5%) agreed, 98(26.9%) disagreed, whereas 60(16.4%) of our participants strongly disagreed that clean of genitals with warm water after urinating during menstruation is better than cold water. Lastly, when we assessed knowledge of these students on disposing of materials used during menstruation, 123(33.7%) of them strongly agreed that proper disposing of material after used during menstrual period is part of menstrual hygiene, 101(27.7%) agreed, 95(26.0%) disagreed, 45(12.3%) strongly disagreed that proper disposing of material after used during menstrual period is part of menstrual hygiene. From this table, we deduce that knowledge of menstrual hygiene among female senior secondary school students in Maiduguri, Borno State is fair.

Hypothesis Result

HO₁: There is no significant difference in knowledge of personal hygiene during menstrual period among female senior secondary school students in Maiduguri, Borno State.

Table 4: Chi-square Summary of Knowledge of Personal Hygiene during Menstrual Period among Female Senior Secondary School Students.

Variables	Observed N	Expected N	Residual	Chi-Square	df	Prob
Agreed	316	182.0	134.0	197.318	1	0.0001
Disagreed	48	182.0	-134.0			
Total	364					

Table 4 indicates that there is significant difference in knowledge of personal hygiene during menstrual period among female senior secondary school students in Maiduguri, Borno State. The chi-square calculated is 197.318, and is greater than the table value of 134.0 at the significant level of 0.05. Therefore, this indicates that there is significant difference in knowledge of menstrual hygiene among female secondary school students in Maiduguri, Borno State (P<0.05).

Discussion

Menstrual hygiene which is one of the components of personal hygiene require proper attention especially in developing countries like Nigeria. Adolescent girl needs to be given adequate knowledge of menstrual hygiene and this will ultimately improve their attitude towards practicing personal hygiene during menstruation. Base on the analysis of the data collected, adolescents' girls in senior public secondary school in Maiduguri had fair knowledge of menstrual hygiene. This can be confirmed as some students 70 (19.2%) against the use of sanitary material during menstruation. When some of these girls were asked what they used to manage their menstrual period, they mentioned rags, cotton, while few used clean clothes and pads. The use of rags is harmful to reproductive tracts and cause female infertility This is in line with the study of Ilo, Nwimo and Onwunaka, (2016) the authors conducted a study among adolescent secondary school girls in Abakaliki Education Zone of Ebonyi State, where 46.9% of their respondents made use of old clothes or rags during their menstrual period. The study further revealed that 81(22.2%) of our respondents disagreed that increasing the number of times of bathing during menstruation hygienic. Some of the students lamented that they only increase their bathing period during heat, but may not take bath every day during the raining season and hamattern because of the extreme cold, and this may be attributed to laziness or non- committed to personal hygiene during menstrual period. The result of this study corroborates the study of Owonikoko, et al. (2016) on menstrual health of in-school adolescents in Ibadan where the authors observed that poor knowledge about the menstrual hygiene, but found no significant relationship between symptoms of menstrual period and not coming to school regularly.

Similarly, more than one-third (43.4%) of these respondents disagreed that cleaning of genitals with warm water after urinating during menstruation is better than cold water. It has been reported in the previous studies that cleaning of genital organ and taking of hot fluid (coffee, water among) helps in flowing of blood during menstrual period. This current study is concurred with a recent study of Bulto, (2021) in Ethiopia where just one-third of the respondents had good management of menstrual hygiene practice [34.7%, 95% CI: 30.1–38.9%]. However, the result of this study disagreed with the study of Lawan, Yusuf and Musa, (2010) where (86.5%) there respondents knew very well that the use of sanitary pad is the best practice for good menstrual hygiene, and Also, about half of the participants (56.5%) knew that poor hygiene practice expose adolescents to infection, while other students knew that practice of personal hygiene prevent menstrual pain (57.1%).The disagreement in this findings could as a result of the fact that this current study is basically on public schools, while the study of Lawan, Yusuf and Musa, (2010) consists of both private and public schools.

The tested hypothesis indicates that there is significant difference in knowledge of personal hygiene during menstrual period among female senior secondary school students in Maiduguri, Borno State ($P < 0.05$). The result of this study agreed with the study Omidvar and Begum, (2010) in South India. They discovered that practice of menstrual hygiene was significantly different among 19 years and above than lower age groups. The researchers noticed significant relationship between type of material used and the age ($P = 0.001$) of the respondents, majority of the respondents with old age had proper disposable behavior than girls with lower ages. Also, a significant relationship was also found between age and practice of storage ($P = 0.002$), changing of the used pads during the night time ($P = 0.018$); the number of pads used every day during menstrual period ($P = 0.045$) and use of pads again after used ($P = 0.014$). The study similarly indicated that a strong significant relationship was found between bathing practice during menstruation, washing of the materials used, wearing of stained dress and age of the respondents. That is a large percentage of these older students practice regular bathing during menstrual period than younger students. Almost all of the students irrespective of age stated

that they washed their genital organ. Moreover, this study is in line with of Fehintola, et al. (2017) in Oyo State Nigeria, they reported that good knowledge of menstrual hygiene found among respondents were associated significantly with old age 16-19years, students whose parent (mother) had higher qualification and those staying with their parents.

Conclusion

It was concluded that knowledge of students towards personal hygiene during menstrual period among senior female secondary students in public schools in Maiduguri is fair and there is no significant difference in knowledge of menstrual hygiene among these students.

Recommendation

More education that will create awareness on the importance of observing menstrual hygiene both at home and in school, and this will help them not only on menstrual hygiene but also personal hygiene.

References

- Abera, Y., Menarche (2003). Menstruation related Problems and Practices among Adolescent High School Girls in Addis Ababa. Thesis of Master degree Addis Ababa University 04: p.9.
- Dasgupta, A. & Sarkar, M. (2008). Menstrual hygiene: How hygienic is the adolescent girl? BMC Public Health **19**.
- Alharbi, et al. (2016). Relationship between Female University Students' Knowledge on Menstruation and Their Menstrual Hygiene Practices: A Study in Tamale, Ghana. Hindawi Publishing Corporation Advances in Preventive Medicine Volume 2016, Article ID 1056235, 10 pages <http://dx.doi.org/10.1155/2016/1056235>
- Bulto, A.G (2021). Knowledge on Menstruation and Practice of Menstrual Hygiene Management among School Adolescent Girls in Central Ethiopia: A Cross-Sectional Study Risk Management and Healthcare Policy downloaded from <https://www.dovepress.com/> by 197.210.52.250 on 22-Oct-2021 for personal use only
- Fehintola, F. O, Fehintola, A. O., Aremu, A.O., Idowu, A, Ogunlaja, O. A & Ogunlaja, I. P (2017). Assessment of knowledge, attitude and practice about menstruation and menstrual hygiene among secondary high school girls in Ogbomoso, Oyo state, Nigeria. International Journal of Reproduction, Contraception, Obstetrics and Gynecology *Int J Reprod Contracept Obstet Gynecol.* 2017 May; 6(5):1726 -1732 www.ijrcog.org DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20171932>
- Harvey, P, B.S & Reed, P. (2012). Emergency sanitation: assessment and programme design. Water, Engineering and Development Centre, Loughborough University,
- Ilo, I. C, Nwimo, O. I & Onwunaka, C (2016). Menstrual Hygiene Practices and Sources of Menstrual Hygiene Information among Adolescent Secondary School Girls in Abakaliki Education Zone of Ebonyi State. Journal of Education and Practice www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.7, No.31, 2016
- Irinoye, O.O, Ogungbemi, A., & Ojo A.O. (2013). Menstruation: Knowledge, Attitude and Practices of Students in Ilife, Nigeria. Nig. J. Med. Jan- Mar; 12(1): 43-51
- Johnson, J. O. (2015): The importance of good personal Hygiene. Hygiene expert. Web Health centre, (2015): Personal Hygiene Retrieved on 14th May, 2015 from <http://webhealthcentre.com>
- Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement.
- Lawan, U.M, Yusuf, W.N & Musa, B.A (2010). Menstruation and Menstrual Hygiene amongst Adolescent School Girls in Kano, Northwestern Nigeria African Journal of Reproductive Health Sept. (Regular Issue); 14(3): 202
- Miiró G, Rutakumwa R, Nakiyingi-Miiró J, et al (2018). Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. BMC Womens Health. 18 (1):1–13. doi:10.1186/s12905-017-0502-z of menstrual hygiene among

high school girls in Western Ethiopia. BMC the Princess Noura University. J Family Med Prim Care. 2018; 7: 1197–202.UK, 2012: p. 60.

Omidvar, S & Begum, K (2010). Factors influencing hygienic practices during menses among girls from south India- A cross sectional study; International Journal of Collaborative Research on Internal Medicine & Public Health Vol. 2 No. 12

Owonikoko, K. M, Okunlola, M.A, Ogunbode, O.O, Enabor, O.O, Oluwasola, T.A.O & Arowojolu, A.O (2016). Menstrual Health of In-School Adolescents in Ibadan: Knowledge, Attitudes and Consequences. Nigerian Medical Practitioner Vol. 55 No 5, 2009 (80 - 83)

UNESCO. Puberty education & menstrual hygiene management good policy and practice in health education booklet. Paris: United Nations Educational, Scientific and Cultural Organization [Internet]; 2014. Available from: <http://www.unesco.org/open-access/terms-use>.