

Relationship between Knowledge of Health Consequences and Practice of Menstrual Hygiene among Female Students of Selected Secondary Schools in Bauchi State

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Abstract

Female secondary school students being adolescents attain the age of maturity which requires special attention. This period is marked by the onset of menarche, which is menstruation. It is a phenomenon and unique to females. This study was conducted to assess the relationship between knowledge of health consequences and practice of menstrual hygiene among Female Students of selected Secondary Schools in Bauchi State. The study adopted the correlational survey. Four thousand, one hundred and eighty nine were the study population and three hundred and forty seven were the sample selected using multi-stage sampling procedure. A researcher- designed consisting of 15 items was used in data collection. Frequency, counts and percentage was used in organizing the demographic information of the respondents, mean and standard deviation (SD) were used in answering the stated research questions and Pearson's product moment correlation coefficient (PPMC) was used in testing the postulated hypothesis at 0.05 level of significance. Fifty six point five percent (56.5%) of the respondents were between age 16-18, 41.9% were between age 13-15 and 1.6% were 19 years and above. Forty six point six percent (46.6%) of the respondents were SS1 students and 53.4% were of SS2. Eighty seven point six percent (87.6%) were Muslims, 12.1% were Christians and 3% follow other religion. The result obtained $r = 0.95$, this indicated that, there is a strong positive correlation. It was concluded that, there is a good relationship between knowledge of health consequences and practice of menstrual hygiene among Female Students of selected Secondary Schools in Bauchi State. It is therefore recommended that, the Female Students of selected Secondary Schools in Bauchi State should maintain the knowledge of health consequences and keep up the good practice of menstrual hygiene.

Keywords: Menstruation, Hygiene, Knowledge, Practice, Students.

Introduction

Menstruation is viewed as the periodic shedding of the inner lining of the uterus under the control of the hormones of the hypothalamus pituitary axis (Garba, et al., 2018). It is also defined as the periodic discharging of the menses, the flow of blood and cells from the lining of the uterus and exit via vagina in female humans. Menarche marks the beginning of woman's menstrual and reproductive life which occurs between 11 and 15 years. It is a qualitative event of major significance in woman's life, denoting the achievement of major functional state (Jitpure, 2016). Menstruation being a natural event needs hygienic

practices to be followed in order to stay healthy and feel fresh. The term menstrual hygiene is seen as a practice of using clean material to absorb menstrual blood that can be changed privately, safely, hygienically and as often as needed through the duration of the menstruation days (Garba, et al., 2018). Menstrual practices are shadowed by taboos and socio-cultural restrictions as linked with several misconceptions and false practices. These taboos and misconceptions towards menstruation and its hygiene practices makes adolescent girls to be ignorant of the scientific facts and hygienic practices during menstruation which can lead to severe reproductive health problems (Gandotra, et al., 2018).

Adverse health consequences like Pelvic Inflammatory Diseases (PIDs), Reproductive Tract Infection (RTIs) and infertility can follow when unhygienic practices are followed during menstruation were the commonest health consequences faced as a result of poor menstrual hygiene practices (Gandotra, et al., 2018). The health consequences of RTIs are severe and may result into negative impact to a woman's health including chronic pelvic pain, dysmenorrhea and even infertility (Upashe, et al., 2015). Women and girls who do not practice good personal and menstrual hygiene are prone to urinogenital infections, yeast infections, fungal infections, Urinary Tract Infection (UTIs) and cervical cancer which will threaten their enjoyment and health and even their lives (Sumpter & Torondel, 2013). In areas where there are no support structures, menstruating girls may withdraw, resort to unhygienic practices or miss school for the duration of menstruation where some of them use improvised materials including cotton wool, cloth, old pieces of mattresses, newspapers and leaves as absorbents (Yiadom, et al., 2018). It was emphasized that improper use of menstrual hygiene materials may associate with the risk of developing Toxic Shock Syndrome (TSS), UTIs and PIDs (Eram, 2017).

Although menstruation is a normal process, however in most parts of the world it remains a taboo and is rarely talked about (Keisar, 2019). There are certain myths and misconception followed by a lot of do's and don't's regarding menstruation. The number is very high in rural and tribal areas. Many cultures have belief, myth and taboos relating to menstruation, social norms or unwritten rules and practices about managing menstruation and interacting with menstruating women (Arya & Ambily, 2017). Having better knowledge on health consequences and practices of hygiene related matters of menstruation will effectively reduce the risk of RTIs and PIDs (Singh, et al., 2019).

Gandotra, et al., (2018) studies recorded 77.5% of their respondents practice good menstrual hygiene in their study on assessment of knowledge and practice of menstrual hygiene among urban adolescent girls in north India. Another study on assessment of menstrual hygiene, menstrual practices and menstrual problems among adolescent girls living in urban slumps of Bilaspur which concludes that, the level of practice of menstrual hygiene is unsatisfactory (Jitpure, 2016). Moreover, Yadav, et al., (2017) found in their study on knowledge, attitude and practice of menstrual hygiene management among adolescent school students in Nepal found that, less than 40% (26%) of the study population practice

good menstrual hygiene. Furthermore, Upashe, et al., (2015) in their study on assessment of knowledge and practice of menstrual hygiene among high school girls in western Ethiopia found that, the level of menstrual hygiene practice is low. Only 39% of the study population practice good menstrual hygiene. Similarly, a study carried out by Garba, et al., (2018) on menstrual hygiene among adolescent school girls in Kano State of Nigeria revealed that, 92.2 of the study population practice good menstrual hygiene.

Positive perception about menstruation and good menstrual hygiene practice safeguards the health of post pubescent females by reducing their vulnerability to reproductive infections. Increasing knowledge on menstruation has positive and significant effect on practice of good menstrual hygiene (Jitpure, 2016). Provision of adequate knowledge on menstruation and its consequences before menarche could make young females practice good hygiene during the onset of menarche (Amaede, & Garti, 2016). Having adequate knowledge on menstruation before menarche could make young females view menstruation as an important milestone in their lives and just a natural phenomenon. Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTIs and its consequences. Therefore, increased knowledge about menstruation right from childhood may escalate practices and may help in mitigating the suffering of millions of women. Infection due to lack of hygiene during menstruation are often reported (Sumpter & Torondel, 2013). This could be as a result of adolescent girls lacking knowledge regarding reproductive health including menstruation and related things which can be due to socio-cultural barriers in which they grow (Gandotra, et al., 2018). It is based on this that this study is designed to determine the relationship between knowledge and practice of menstrual hygiene among Female Students of selected Secondary Schools in Bauchi State.

Research Objective

The main purpose of this study is to assess the relationship between knowledge of health consequences and practices menstrual hygiene among Female Students of selected Secondary Schools in Bauchi State.

Research Question

This study was guided with the following question:

Is there any relationship between the knowledge of health consequences and practice of menstrual hygiene among female students of selected Secondary Schools in Bauchi State?

Research Hypothesis

There is no relationship between the knowledge of health consequences and practice of menstrual hygiene among female students of selected Secondary Schools in Bauchi State.

Methodology

This study was a correlation survey conducted among female students of selected Secondary Schools in Bauchi State to assess the relationship between knowledge of health consequences and practice of menstrual hygiene. Multi-stage sampling procedure was used in selecting a sample of 347 secondary school girls from the study population of 4189 (Emaiku, 2008) female secondary school students in Bauchi State. A researcher-developed close-ended questionnaire made up of 15 items was used in collecting data.

Results

The survey was conducted in some selected secondary schools in Bauchi State from February to September, 2022. Three hundred and forty seven (347) female students participated in the survey.

Table 1: Demographic Information of the Respondents

Variable	Frequency	Percentage (%)
Age		
13 – 15 years	114	32.9%
16 – 18 years	197	56.8%
Above 18 years	36	10.3%
Total	347	100%
Class		
SS I	172	49.6%
SS II	175	50.4%
Total	347	100%
Religion		
Islam	304	87.6%
Christianity	42	12.1%
Others	1	0.3%
Total	347	100%

Table 1 shows that one hundred and fourteen (114) respondents representing 32.9% were between the age of 13-15years while 197 respondents representing 56.8% were between the age of 16-18years and lastly, 36 respondents representing 10.4% were between 19years and above. Therefore, those between 16-18 years have greater percentage compared to those between 13-15 years and 19 years and above. The table also shows that, 172 respondents representing 49.6% were from SS1, while 175 respondents representing 50.4% were from SS2. Those in SS2 have greater percentage compared to those in SS1. Three hundred and four (304) respondents representing 87.6% are of the religion of Islam, 42 respondents representing 12.1% are Christians and one with 0.3% respondent follows

other religion. This indicates that, those following Islam religion have greater percentage than those following Christianity and other religions.

Table 2: Item Analysis on the Response on the Knowledge of Health Consequences of Menstrual Hygiene among Female Students of Selected Secondary Schools in Bauchi State

Items	Yes (%)	No (%)	Mean	S.D
1. Poor menstrual hygiene can cause infertility	331 (95.4%)	16 (4.6%)	1.95	0.210
2. Poor menstrual hygiene could lead to abdominal pain	307 (88.5%)	40 (11.5%)	1.88	0.319
3. Reproductive tract infection is an adverse health consequence of poor menstrual hygiene	315 (90.8%)	32 (9.2%)	1.90	0.289
4. Urinary tract infection could be caused by poor menstrual hygiene	313 (90.2%)	34 (9.8%)	1.90	0.297
5. Poor menstrual hygiene could lead to painful menstruation	297 (85.6%)	50 (14.4%)	1.85	0.351
6. Poor menstrual hygiene could lead to cervical cancer	282 (81.3%)	65 (18.7%)	1.812	0.390
Average mean = 2.26				

Table 2 shows the summary of analysis on knowledge of health consequences of menstrual hygiene among female students of selected secondary schools in Bauchi State. All the items in the section were greater than the decision making level of 1.5 mean. The table reveals the average mean of 2.26 and SD of 0.371 which is positive above decision making level of 1.5 mean.

Table 3: Item Analysis on the Response on the Practice of Menstrual Hygiene among Female Students of selected Secondary Schools in Bauchi State.

Items	Yes (%)	No (%)	Mean	S.D
1. I bath more than one during menstruation	326 (93.9%)	21 (6.1%)	1.93	0.238
2. I wash my genital part more than once during menstruation	323 (93.1%)	24 (6.9%)	1.93	0.254
3. I change my menstruation absorbent every 3 – 4 years	310 (89.3%)	37 (10.7%)	1.89	0.309
4. I use sanitary/disposable pad as absorbent during my menstruation days	323 (93.1%)	24 (6.9%)	1.93	0.254

5. I use re-usable material as absorbent during my menstruation days	147 (42.4%)	200 (57.6%)	1.42	0.494
6. My mother provide/buy menstrual absorbent for me	262 (75.5%)	85 (24.5%)	1.73	0.430
Average mean = 1.812				

Table 3 shows the summary of analysis on practice of menstrual hygiene among female students of selected secondary schools in Bauchi State. All the items in the section were positive except item 5 which has a mean of 1.42. The table shows the average mean of 1.812 and SD of 0.330. The average mean is positive greater than the decision making level of 1.5 mean.

Research Hypothesis

There is no relationship between the knowledge of health consequences and practice of menstrual hygiene among Female Students of selected Secondary Schools in Bauchi State.

Table 4: Summary of Pearson's Product Moment Correlation Coefficient (PPMC) between Knowledge and Practice of Menstrual Hygiene among Female Students of selected Secondary Schools in Bauchi State.

Items	N	Mean	r	P
Knowledge of menstrual hygiene	347	1.95		
			0.86	0.76
Practice of menstrual hygiene	347	1.93		

Table 4 shows the summary of PPMC analysis between knowledge of health consequences and practice of menstrual hygiene among female students of selected secondary schools in Bauchi State. The table shows r of 0.86 and p-value of 0.76 which is statistically higher than 0.05 level of significance. This indicates that, there is a relationship between knowledge of health consequences and practice of menstrual hygiene among female students of selected secondary schools in Bauchi State. Therefore, the hypothesis which predicts that there is no relationship between the knowledge of health consequences and practice of menstrual hygiene among female students of selected secondary schools in Bauchi State is hereby rejected.

Discussion

The finding of the study indicates that there is a significant relationship between knowledge of health consequences and practice of menstrual hygiene among female students of selected secondary schools in Bauchi State. Contrary to this, the findings disagrees with Jitpure (2016) study on assessment of menstrual hygiene, menstrual practices and menstrual problems among adolescent girls living in urban slumps of Bilaspur which

concludes that, the level of practice of menstrual hygiene is unsatisfactory when compared to the level of their knowledge. More so, the outcome also disagrees with the findings of Dasgupta and Sarkar (2008) who conducted a study on knowledge of menstruation and menstrual hygiene, they found that only 32. 5% of the respondents have knowledge on menstruation. The finding furthermore contradicted the findings of the study shows greater percentage (83. 75%) of the study population indicated practicing good menstrual hygiene and fewer percentage (16. 25%) do not practice good menstrual hygiene. It also tallies with Gandotra, Pal and Maheshwari (2018) who recorded 77.5% of their respondents practice good menstrual hygiene in their study and the greater percentage (87%) of the respondents having knowledge of health consequences of menstrual hygiene among urban adolescent girls in north India.

The outcome is unexpected as it's contradicted Yadav, et al (2017) study on knowledge, attitude and practice of menstrual hygiene management among adolescent school students in Nepal which found that most participants have knowledge while less than 40% (26%) of the study population practice good menstrual hygiene. It also contradicted with Upashe, et al (2015) in their study on assessment of knowledge and practice of menstrual hygiene among high school girls in western Ethiopia found that, the level of menstrual hygiene practice is low. Only 39% of the study population practice good menstrual hygiene. The findings also contradicted with Okafor-Terver and Chuemchit (2017) who concludes that, knowledge on menstruation is low among the study population in their study on knowledge, belief and practice of menstrual hygiene management among school adolescents in Katsina State of Nigeria. However, the outcome correlates with the findings of Garba, et al (2018) in their study on menstrual hygiene among adolescent school girls in Kano State of Nigeria, it revealed that, 92.2 of the study population practice good menstrual hygiene.

Conclusion

The study concludes that, there is a good relationship between knowledge of health consequences and practice of menstrual hygiene among female students of selected secondary schools in Bauchi State. Thus, having knowledge on health consequences of menstrual hygiene makes them practice good menstrual hygiene to avoid any of the health implications or consequences.

Recommendations

Based on the findings of this study, it is therefore recommended that:

- Female students of selected secondary schools in Bauchi State should maintain the knowledge of health consequences and keep up the good practice of menstrual hygiene.
- Government and schools' authorities should mobilize communities and non-governmental organizations in provision and management of WASH facilities in school

to ensure sustainability of the practice, reduce low performance of students due to absenteeism, drop-outs and even embarrassment of girls in school during menstruation.

- Schools authorities should set-up standing committee headed preferably by female Health Educator or female school nurse that would be will charged with responsibility of counseling, guiding and assisting them to adopt good menstrual hygiene to avoid possible health consequences that may occur as a result of poor menstrual hygiene.

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