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EFFECT OF MENSTRUAL HYGIENE ON THE HEALTH STATUS OF FEMALE ADOLESCENTS IN SENIOR SECONDARY SCHOOLS IN ZARIA LOCAL GOVERNMENT AREA OF KADUNA STATE

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Abstract

Poor menstrual hygiene caused by a lack of education on the issue, persisting taboos and stigma, limited access to hygienic menstrual products and poor sanitation infrastructure undermines the educational opportunities, health and overall social status of women and girls around the world. The research study examined the effect of Menstrual Hygiene on the Health Status of female adolescents in Senior Secondary Schools in the Zaria Local Government area of Kaduna State. A survey research design was used for the study. The target population comprised female adolescents in Senior Secondary. One Hundred (100 female) adolescents were drawn from public and private Senior Secondary Schools within the study area who volunteered to respond to the research tool. The instrument for data collection was the researchers' developed questionnaire tagged Questionnaire on the Effect of Menstrual Hygiene on the Health Status of Female Adolescents. "EMHHSFA" which had a reliability of 0.74. Descriptive statistics of simple percentages, means and standard deviation were used. The null hypothesis was tested at 0.05 alpha level of significance in which Pearson Product Moment Correlation Coefficient was used. The findings revealed that the majority of the respondents were taught about menstrual hygiene at home and then followed at school. It was also revealed that the majority of the respondents used sanitary pads as absorbent during menstruation. It was also revealed that a significant relationship exists between menstrual hygiene and health status in female adolescents. It was recommended among others that menstrual hygiene should be emphasized with regard to teaching Health Education at Senior Secondary Schools, specifically girls' schools.

Keywords: Menstrual Hygiene, Health Status, Female Adolescents.

Introduction

Menstruation and menstrual practices still face many social, cultural, and religious restrictions which are big barriers in the path of menstrual hygiene management. Menstruation is a natural process that occurs monthly in healthy adolescent girls and premenopausal adult women. Ahmed and Yesmin (2008) stated that menstruation is a phenomenon unique to females, the onset of menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years. Adolescent girls constitute a vulnerable group, particularly in the developing world where a female child is somehow neglected. Menstruation is still regarded as something unclean or dirty in most societies. The reaction to menstruation depends upon awareness and knowledge about the subject matter (Ahmed & Yesmin, 2008). How a girl learns about menstruation and its associated changes may have an impact on her response to the event of the monarch. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result in adverse health outcomes. UNICEF (2023) added that menstrual hygiene is crucial for the health, dignity and well-being of millions of people worldwide, particularly adolescent girls, women, transgender men and non-binary individuals.

Centre for Disease Control and Prevention (CDC) (2023) stated that good menstrual hygiene practices can prevent infections, reduce Odours and help individuals stay comfortable during their period. UNICEF (2019) stated that Adequate menstrual hygiene practices are a process in which women and adolescent girls use a clean menstrual management material to absorb or collect menstrual blood that can be privacy changed as often as necessary for the duration of menstrual periods, using soap and water for washing the body as required and having access to safe and convenient facilities to dispose of used menstrual management materials.

Appropriate disposal of used menstrual materials is still lacking in many countries of the world. Most countries have developed techniques to manage their faecal and Urinary waste but, because of the lack of menstrual management hygiene practice (MMHP) in the world, most women dispose of their sanitary pads or other menstrual articles into domestic solid wastes or garbage bins that ultimately became a part of solid wastes. In Urban areas, where modern disposable menstrual products are

used they are disposed of by flushing toilets and throwing them in dustbins or through solid waste management (Ashly, Blackwood & Souter, 2005). In rural areas, there are many options for disposing of menstrual waste such as burying, burning, and throwing in the garbage or pit latrines. In rural areas, most women use reusable and non-commercial sanitary lesser amount of menstrual waste as compared to women in Urban areas who rely on commercial disposable pads. The menstrual material is disposed of according to the type of product used, cultural beliefs, and location of disposal. In slum areas, women dispose of their menstrual waste in pit latrines as burning and burial were difficult due to limited privacy space (Ashly et al., 2005).

The reason behind that is if seen by men it can be used for witchcraft (Garg, Sharma & Sahay, 2001). Jasper, Lee, and Bartram (2012) stated that, in schools, due to a lack of sanitary facilities, girls throw their pads in toilets. In some cases, girls throw away their used menstrual clothes without washing them. Crafts and Fisher (2012) added that in some schools, incinerators or "feminine hygiene bins" are used for disposing of menstrual waste material but due to shyness or fear of being seen by others, they refrained from using it. The behaviour of women regarding disposal is different when being at home and away from home. At home, they dispose of the waste by wrapping it and throwing it in the dustbin along with other domestic waste.

Lawan, Yusuf and Musa (2010) conducted research titled Menstruation and menstrual hygiene amongst adolescent school girls in Kano, northwestern Nigeria, and reported that the majority of the respondents had a fair knowledge of menstruation, although deficient in specific knowledge areas. The majority of respondents used sanitary pads as absorbent during their last menses; changed menstrual dressings about 1-5 times per day; and three-quarters of the respondents increased the frequency of bathing during menstruation.

Cajetan, Ignatius and Chinagoron (2016) conducted a research titled, Menstrual Hygiene Practices and Sources of Menstrual Hygiene Information among adolescent secondary school girls in Abakaliki Education Zone of Ebonyi State and reported that the girls' menstrual hygiene practices were poor and received menstrual information from undependable sources. They added that a significant difference was noticed among the respondents in their menstrual hygiene practices and sources of their menstrual hygiene information. Habtegiorgis et al (2021) conducted research titled Menstrual Hygiene Practices Among High School Girls in Urban Areas in North-eastern Ethiopia: A Neglected Issue in Water, Sanitation and Hygiene Research, and reported that more than half of high school girls had good menstrual hygiene practices. Another finding of the study was that knowledge about menstruation helps girls maintain good menstrual hygiene practices than their irregular counterparts. The explanation of the outcomes stated that it may be those girls with irregular menses cannot anticipate their onsets, and may therefore be less prepared for proper menstrual hygiene.

Health Issues Related to Poor Menstrual Hygiene:

i. Bacterial Vaginosis (BV)
ii. Yeast Infections (Candidiasis)
iii. Urinary Tract Infections (UTIs)
iv. Pelvic Inflammatory Disease (PID)
v. Toxic Shock Syndrome (TSS)
vi. Reproductive Tract Infections (RTIs)
vii. Menstrual Disorders (e.g., dysmenorrhea, menorrhagia) (Sommer, 2015).

Factors Influencing Menstrual Hygiene and Health:

i. Socio-economic status
ii. Access to sanitation facilities and materials
iii. Education and Awareness
iv. Cultural and social norms
v. Age and reproductive stage
vi. Disability and mobility
vii. Healthcare access and quality (Sommer, 2015).

Indicators of Good Menstrual Hygiene and Health

i. Regular menstrual cycle
ii. Normal menstrual flow
iii. Absence of pain or discomfort

iv. No signs of infection (eg. odour, discharge)

v. Proper use of menstrual products

vi. Regular hand washing and hygiene practices

vii. Access to healthcare and reproductive services (Sommer, 2015).

Consequences of Poor Menstrual Hygiene and Health:

i. School absenteeism

ii. Social isolation

iii. Stigma and shame

iv. Mental health concerns (eg, anxiety, depression)

v. Reduced quality of life

vi. Increased health care costs (Sommer, 2015).

Intervention and Strategies

i. Menstrual health education

ii. Access to affordable menstrual products

iii. Improved sanitation infrastructure

iv. Healthcare provider training

v. Community engagement and awareness

vi. Policy reforms and advocacy

vii. Research and monitoring (Sommer, 2015).

Problem Statement

Sanches (2002) conducted a research titled, Human Immunodeficiency Virus (HIV) and HIV/AIDS information: main sources and credibility among university students, and reported that students and other young adults especially in the rural areas of Nigeria possess low levels of knowledge regarding most health-related matters. They receive health-related information from friends, peers, Television/Video, Magazines and other print media and rarely do they get information from teachers and media personnel. Daggupta and Sarkar (2008) conducted a study in India, titled, Menstrual Hygiene: How hygienic are the adolescent girls?, and reported that women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive tract infections (RTIs) and consequences.

When women and girls cannot afford or access absorbent sanitary products, they may use improvised materials such as improperly cleaned or scavenged cloth or other materials such as newspaper or even grass. This may cause reproductive tract infections, such as bacterial vaginitis or vulvovaginal candidiasis, which in turn can increase susceptibility to HIV infection. There are other menstrual disorders and menstrual-related symptoms that affect a woman's health and her ability to engage in daily activities. For instance, anaemia, a major contributor to maternal morbidity, is associated with menorrhagia, or heavy periods. Endometriosis, a menstrual disorder, contributes to infertility. And women with dysmenorrhea or painful menses, may miss one or more days of school or work each month. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may facilitate mitigating the suffering of millions of women. It was based on the aforementioned literature, the researcher developed an interest in ascertaining the effect of menstrual hygiene on the health status of female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State.

Objectives of the Study

The research study aimed to determine the sources of information on menstrual hygiene, menstrual hygiene practices and the effect of menstrual hygiene practices on health status with regards to female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State.

Research Questions

i. What sources of information on menstrual hygiene are with regard to female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State?

ii. What is the status of menstrual hygiene practices among female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State?

iii. What are the factors associated with good menstrual hygiene practices among female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State?

iv. What are the effects of menstrual hygiene on the health status of female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State?

Research Hypothesis

i. There is no significant relationship between menstrual hygiene practices and the health status of female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State.

Method and Procedure

A survey research design was used for this study. This method was considered appropriate because it provides a modality for obtaining information from a sample size and generalizing the findings obtained to the entire population. There is a total enrolment of 109,385 out of which 46,213 are girls in public senior secondary schools. The Private Sector accounts for an enrolment of 41,088 out of which 20,413 are girls in Senior Secondary schools. The total number of Pupils in Public and Private Senior Secondary schools irrespective of sex and age is 150,473 out of which 66,626 are girls. A total of 107,256 are within the senior secondary age limit of 15-17. Out of this number, 48,428 (45%) are girls (Kaduna State Ministry of Education (2018). The target population comprised female adolescents in Senior Secondary Schools in Zaria Local Government Area of Kaduna State. One Hundred (100) female adolescents drawn from public (50) and private (50) Senior Secondary Schools in Zaria Local Government Area volunteered to respond to the research questionnaire. The research instrument employed for this study was a self-structured interviewer-administered questionnaire titled Effect of Menstrual Hygiene on the Health Status of Female Adolescents. "EMHHSFA". The research instrument was divided into two sections. The "A" section requires demographic information of the respondents. While the "B" section focused on the effect of menstrual hygiene on the health status of female adolescents. The research instrument was found reliable with a reliability coefficient of 0.92. Data was collected with the help of one trained female research assistant on how to seek respondent's consent, administer the instruments and confidentiality in the respective schools which lasted for two weeks. Descriptive statistics of simple percentages, means and standard deviation were employed for the socio-demographic information of the respondents. The null hypothesis was tested at 0.05 alpha level of significance in which Pearson Product Moment Correlation Coefficient was used. One hundred (100) copies of the questionnaire were distributed among the female adolescents in Senior Secondary Schools in Zaria Local Government. And the return rate was hundred (100) per cent.

Section A: Socio-demographic Characteristics of the Respondents

Table 1: Demographics of respondents

S/N	Characteristics of Respondents	Frequency (F)	Percentage (100%)
1	Class		
	SS 1	22	22%
	SS 2	37	37%
	SS 3	41	41%
	Total	100	100%
2	Age		
	14-16 Years	17	17%
	17-29 Years	64	64%
	20- years above	19	19%
	Total	100	100%
3	Who did you stay with at home?		
	Parents	64	64%
	Guardian	36	36%
	Total	100	100%

Table 1 indicated that the majority of the respondents (41%) fall within the Senior Secondary (SS 3) category. The result also indicated that the majority of the respondents (64%) fall within the age range of 17-19 years. With regards to who takes care of the respondents, the results showed that the majority of them (64%) lived with their parents (in their homes).

Table 2: Analysis of Research Questions, with regards to Menstrual Hygiene and Health Status.

S/N	Characteristics of Respondents	Frequency (F)	Percentage (100%)
4	Do you menstruate?		
	Yes	100	100%
	No	Nil	Nil
5	How long do you menstruate?		
	3 days	17	17
	4 days	23	23
	5 days and above	60	60
6	Were you taught about menstrual hygiene?		
	Yes	90	90
	No	10	10
7	If yes, where were you taught?		
	School	40	40
	Home	50	50
	Others	10	10
8	How many times do you take Birth in a day during menstruation		
	1 time	70	70
	2 times	20	20
	3 times	10	10
9	What type of absorbent do you use during menstruation?		
	Sanitary pads	70	70
	Piece of cloth	20	20
	Toilet paper	10	10
10	Number of times absorbent changed in a day		
	1 time	51	51
	2 times	49	49
11	How do you dispose of used absorbents		
	Bury them	30	30
	Washing them	14	14
	Throwing them	56	56

Table 2 indicates that the entire respondents (100%) have started to notice their menstruation (period). Item number 5 showed that a higher proportion of the respondents (60%) observed their menstruation in 5 days and above. While item number 6 indicated that almost all of the respondents (90%) acquired knowledge about menstrual hygiene. Furthermore, the place they acquire the information with regards to menstrual hygiene can be noticed in item number 7 which showed that most of the respondents (50%) received the health information at home. Item number 8 showed that most of the respondents (70%) take their bath once daily during menstruation. With regards to types of absorbents used during menstruation, the results showed that the majority of the respondents (70%) used sanitary pads during their menstruation, this can be noticed in item number 9. Item number 10 indicated that the majority of respondents (51%) do change their absorbents one time daily during menstruation. Item number 11 showed a majority of the respondents (56%) employ the methods of throwing away their used absorbents during menstruation.

Table 3: Analysis of Research Questions, with regards to Menstrual Hygiene and Health Status.

S/N	Characteristics of Respondents	Frequency (F)	Percentage (100%)
12	Do you clean your hands and external genitalia after disposal?		
	Yes	90	90
	No	10	10
13	If yes what do you use		
	Water only	58	58
	Water and soap	37	37
	Water and antiseptic soap	05	05
14	Do you have rashes and itching on external genitalia?		
	Yes	80	80
	No	20	20
15	Do you notice coloured and smelly discharge?		
	Yes	60	60
	No	40	40
16	Do you experience pains during Urination		
	Yes	11	11
	No	89	89
17	Do you experience irregular menstrual cycle		
	Yes	35	35
	No	65	65
18	Do you notice the presence of blood in your Urine?		
	Yes	03	03
	No	97	97
19	Do you experience pains in the lower abdomen/pelvic area		
	Yes	35	35
	No	65	65

The results in Table 3 indicated that most of the respondents (90%) do wash their hands and external genitalia after disposal of the absorbents during menstruation, this can be noticed in item number 12. Item number 13 showed that the majority of the respondents (58%) used ordinary water in washing their hands and genitalia during menstruation. Item number 14 clearly showed that the majority of the respondents (80%) reported having rashes and itching in their genitalia during menstruation. Most of the respondents (60%) in item number 15 reported noticing coloured and smelly discharge, while most of the respondents (89%) in item number 16 reported not experiencing pains during Urination. Item number 17 showed that the majority of the respondents (65%) do not experience irregular menstrual cycles. Item number 18 indicated that most of the respondents (97%) didn't notice any presence of blood in their Urine. This concludes that only mega number of the respondents noticed the presence of blood in their Urine. Item number 19 showed that the majority of the respondents (65%) do not experience pains in their lower abdomen or pelvic area. This showed that a lesser number of the respondents do experience pains in their lower abdomen or pelvic area during menstruation.

In summary, the research study revealed that the majority of the respondents were taught about menstrual hygiene at home and then followed by school settings. More so, most of the respondents take their baths and change their absorbents only once a day. In addition, the respondents with poor menstrual hygiene practices admitted to having symptoms of urogenital infections.

Hypothesis Testing

H_{O1}. There is no significant relationship between menstrual hygiene practices and the health status of female adolescents in Senior Secondary Schools in Zaria L.G.A.

Table 4: PPMCC showing the Relationship between Menstrual Hygiene and Health Status.

Variable	Menstrual Hygiene	Health Status
Menstrual Hygiene Person	1	.855
Correlation sig. (2 tailed)	100	.000
N		100
Health Status Person Correlation sig. (2 tailed)	.855	1
Correlation sig. (2 tailed)	.000	
N	100	100

Correlation is significant at 0.05 level (2.tailed)

Table 4 indicated that Pearson product-moment correlation coefficient (PPMCC) Statistics revealed that there is a significant effect of menstrual hygiene on health status in female adolescents in Senior Secondary Schools in Zaria Local Area of Kaduna State, which was statistically significant $r = 0.855$, $p < 0.05$. Therefore, the null hypothesis which states that there is no significant relationship between menstrual hygiene and health status in female adolescents in Senior Secondary Schools in Zaria Local Area of Kaduna State is hereby rejected. Therefore, much significant improvement was recorded in menstrual hygiene behaviour.

Discussion of Findings

The findings of the research study indicated that the majority of the respondents (64%) fall within the age range of 17-19 years. With regards to who takes care of the respondents, the results showed that the majority of them (64%) live with their parents. The findings of the study further showed that the majority of the respondents (50%) were taught about menstrual hygiene at home then followed by (40%) in school settings. The finding is in line with that of Cajetan, Ignatius and Chinagoron (2016) who reported that most adolescent Secondary School girls in Abakaliki education zone received menstrual information from undependable sources. The findings of the study showed that the majority of the respondents take their baths and change their absorbents once a day. The finding is in agreement with that of Habtegiorgis et al (2021) that among high school girls in Urban areas in northeastern Ethiopia, more than half of the respondents had good menstrual hygiene practices.

The findings further revealed that the majority of the respondents (70%) used sanitary pads as absorbent during their menstruation (period). The finding is in line with that of Lawal, Yusuf and Musa (2010) that the majority of the respondents used sanitary pads as absorbent during their menstruation, amongst adolescent school girls in Kano, Nigeria. The findings further evident that one-third (35%) of the respondents experience irregular menstrual cycles. On the other hand, Habtegiorgis (2021) reported that study participants (respondents) with regular menstruation cycles had better menstrual hygiene practices than their irregular counterparts, among high school girls in Urban areas in northeastern Ethiopia.

Conclusion

Based on the findings of the study, it was concluded that most of the respondents were taught about menstrual hygiene at home and then followed in school settings. Most of them take their baths and change their absorbents only once a day. Most of the respondents reported not experiencing pains in their lower abdomen/pelvic area during menstruation.

Recommendation

Based on the findings of the study, the following recommendations were made:

1. Menstrual hygiene should be emphasized with regard to teaching health education at Senior Secondary Schools, specifically girls' schools.
2. Seminars/workshops/sensitization to be given to school girls and adolescents with regard to poor menstrual hygiene which leads to Urogenital infections.
3. Regular bathing, regular washing of hands and genitalia, and regular changing of absorbents during menstruation should be encouraged among adolescent girls by parents and teachers to improve and maintain their health status.

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