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KNOWLEDGE AND HINDRANCES TO HYGENIC MENSTRUAL PRACTICES AMONG SECONDARY SCHOOL GIRLS IN KWARA STATE, NIGERIA

¹Amore, A. A. (Ph.D.), ²Oyeyemi, A. O. (Ph.D.) and ³Jidda, K. A. (Ph.D.)

¹School of Public Health, Texila American University, Guyana

²School of Public Health, Babcock University, Nigeria

³Department of Health Promotion and Environmental Health Education, University of Ilorin, Nigeria
Corresponding Author's Email: Akinola_05@yahoo.com

Abstract

Good menstrual hygiene is a very paramount aspect of female personal hygiene but it is one of the least talked about issues facing adolescent girls in developing world, Nigeria inclusive. This study investigated the knowledge and hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria. Specifically, the study examined the level of knowledge of hygienic menstrual practices as well as hindrances to practicing it. The study was a descriptive survey type with a study population of 450 secondary school student selected through a multi-staged sampling procedure. Questionnaire validated for face and content validity determined by experts in the field of health promotion and education was the instrument adopted for data collection. It was also subjected to a reliability test of the split half method which yielded the reliability coefficient of 0.74. Data collected was analyzed using descriptive statistics of percentage and mean to answer the research questions while ANOVA and independent t-test were used to test hypotheses at 0.05 alpha level. The findings revealed that: majority of the secondary school girls studied had low knowledge of menstrual hygiene. Also, the students encountered hindrances to hygienic menstrual practices such as not being able to move freely around the school during menstrual period; not being able to bath thrice daily to avoid menstruation odour and stains among others. Furthermore, there was no significant difference in the knowledge of menstrual hygiene among Secondary school girls based on class levels ($F_{(12, 447)} = 1.983, p > 0.05$); there was a statistically significant difference in the knowledge of menstrual hygiene among Secondary school girls based on location ($t_{(448)} = 1.652, p > 0.05$); there was no significant difference in the hindrances to menstrual hygiene practices among the school girls based on class levels ($F_{(12, 447)} = 1.809, p > 0.05$) and there was also no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on location ($t_{(448)} = 1.421, p > 0.05$). In view of these findings, it was concluded that secondary school girls in Kwara State lack adequate knowledge of menstrual hygiene which aided hindrances to hygienic practices during menstruation. It was recommended among others that sensitization programmes on menstrual hygiene be carried out among secondary girls by health educators, Government should provide WASH amenities for schools and Non-Governmental Organizations should work with Government to subsidize sanitary pads among others.

Keywords: Hindrances, Menstrual hygiene, Knowledge, Practice

Introduction

The advent of menstruation is one of the most noticeable changes in girls as they move from childhood to becoming reproductively mature. Physical and psychological changes are common throughout this time, therefore it is important to exercise self-confidence-building techniques and disease prevention. According to Person, Kayula, and Opong (2014), menstrual hygiene is a significant issue influencing the health and academic success of girls of reproductive age. Menstrual hygiene thus becomes a significant issue (WaterAid, 2012) because 52% of women (or 26% of the world's population) are currently of reproductive age and go through their menstrual cycle on average for up to 52 days each year (McMahon, Winch, & Caruso, Othure, Ogutu, Ochari, 2011)

Menstrual hygiene is a crucial component of female personal hygiene, but it is also one of the topics that adolescent girls in developing countries like Nigeria, talk about the least. According to Thakre, Thakre, Reddy, Rath, Pathak, and Ughad (2011), women's hygiene practices during menstruation are extremely important because they have an impact on their health by making them more susceptible to infections, particularly infections of the urinary tract and the perineum as well as the release of offensive odor. Thus, unhealthy menstrual practices include, among others, not frequently cleansing the genitalia and using unclean cloth. In order to prevent toxic shock syndrome, premature deliveries, stillbirths, miscarriages, infertility issues, and cervix cancer as a result of recurrent reproductive tract infections, menstrual hygiene is a crucial component of health education for menstruating women (Bathija, Bant & Itagimath, 2013). It is thus important for women to adopt good cleanliness during their periods to avoid these negative health effects (Anchebi, Shiferaw, Fite & Abeya, 2017).

Menstrual hygiene, according to Deshpande, Patil, Gharai, Patil and Durgawale (2018), entails requirements and necessities like the use of sanitary pads or clean and soft absorbents, adequate washing of the genital area, proper disposal of used absorbents, and other specific healthcare needs of women during monthly menstrual cycles. Although it is crucial, menstrual hygiene is still largely disregarded in many parts of the world (Prajapati, Shah & Kedia, 2015). Though menstruation is a natural physiological occurrence for females, maintaining excellent hygiene is difficult for all adolescent girls (Mahon & Fernandes, 2010). Girls who have never had their period may feel a variety of emotions during their vaginal bleeding, including dread, humiliation, and guilt (Bathija, et. al., 2013). Teenage girls, especially in developing nations, still do not know how to practice excellent menstrual hygiene (Anchebi et al., 2017). Hayden (2012) posited that the reasons for this lack of knowledge may not be far-fetched from secrecy, taboo and shame that usually surround the act of menstruation. These hinder adequate assessment and identification of solutions that are viewed as contextually appropriate because Girls and women hesitate to speak openly about menstruation. Hayden (2012) further claims that cultural beliefs such as the types of materials that girls and women use, their methods for disposing of menstrual waste (e.g. burying versus communal trash bins) and their preferences for how and where to wash and dry reusable materials (de Lange, Lenglet, Fesselet, Gartley, Altyev & Fisher, 2014) frequently influence menstrual practices.

The degree to which menstruating women and girls can fully participate in society depends on cultural, religious, and behavioral norms that vary both internationally and among individual nations. A study among exiled women in Nepal indicated that 89% of women and girls suffered limitations during menstruation, including exclusion from the community and confinement to the home (Karki, Poudel, Rothchild, Pope, Bobin, Gurung, Basnet, Poudel, Sherpa, 2017).

Amatya, Ghimire, Callahan, Baral and Poudel, (2018) posited that menstrual stigma, which has roots in power and gender imbalances and prevents menstruation from being openly acknowledged, is what underlies these problems. This prevents people from discussing correct facts about the menstrual period and how to handle it in an appropriate and dignified manner. Additionally, it makes people uncertain about how to seek assistance at home, at school, or through medical services (Hennegan, Torondel, Phillips-Howard, Sommer & Montgomery, 2017)

Menstrual hygiene knowledge is mostly transmitted among family members and focused on the use of monthly products in order to maintain the social stigmas and taboos currently associated with menstruation. This results in inadequate management of menstrual discomfort. Unhygienic practices are frequent in this setting (PSI Nepal, 2017).

Having the knowledge, resources, and cultural setting to manage menstruation hygienically and with dignity is a top priority for women and girls. However, development professionals in the WASH (water, sanitation, and hygiene) sector and other related fields like reproductive health largely disregard the significance of menstrual hygiene management (Mahon & Fernandes, 2010).

According to Anchebi, et. al. (2017), effective menstrual hygiene practices will boost women's confidence in a variety of ways. On the other side, poor menstrual hygiene practices will make people more vulnerable

to issues with reproductive health. According to Parker, Smith, Verdemato, Conke, Webster and Carter (2014), effective menstruation management is crucial for girls' mental and physical health, yet many girls in underdeveloped nations do not experience this. As a result, they must limit their activities when they are menstruating, which jeopardizes their ability to maintain a household and pursue a formal education. Menstrual hygiene management (MHM) is a well-known public health, social and educational issue (Sommer, Caruso, Sahin, Calderon, Cavill, Mahon et al, 2016). Menstrual hygiene management (MHM) refers to techniques for maintaining personal hygiene while having a period, starting with selecting the best sanitary products, using them correctly, disposing of them properly, and keeping one's body clean.

Mohammed and Larsen-Reindorf (2020) claim that school environments without toilets, water, or a supportive teacher, mentor, or role model to help them understand the changes occurring in their bodies cause school girls in low and middle-income countries to discover blood on their clothing for the first time. Girls from lower socio-economic classes who are unable to afford sanitary napkins instead utilize cotton rags, which are typically shredded pieces of clothing from old clothes throughout the duration of their periods. Even if the fabric is completely covered in blood or extremely dirty, they remain unchanged. Sometimes a lack of water exacerbates the issue and prevents them from being able to wash the cloth.

Due to Taboos and misconceptions around disposing of items soaked with menstrual blood, some people who use tissue rolls end up retaining them for an extended period of time. Kumari (2017) opined that in the majority of Indian households, women are forbidden from eating or touching sour foods like pickles. Different faiths forbid women from entering holy areas because they will bring pollution. Some traditions commemorate a girl's menarche or first period in accordance with their culture, but they also forbid menstrual women from participating in any rites since they are viewed as filthy and impure. This not uncommon in Nigeria households as well since some families hold the believe that a menstruating woman should not touch food such as moim-moin, commel and sieving of gruel used to make pap as such food will either turn sour or not get cooked if touched or prepared by a menstruating woman

Statement of the Problem

Menstruation is frequently thought of as a personal matter. The way it is handled has been impacted by its private character. Despite it being taught as a required element of the school curriculum, it is still thought that only the family should discuss it among its female members. This has impacted the hygiene practices associated with it because young girls are frequently left to investigate and learn on their own about how menstruation should be managed. The majority of the time, the period it happens is accompanied by unhygienic behaviors or even school absences.

This is made more difficult by a number of obstacles, including a lack of affordable, comfortable, and appropriate menstrual products, inaccurate information about the menstrual cycle and how to manage it with dignity, harmful social beliefs and taboos related to menstruation, and a lack of adequate physical water, sanitation, and hygiene (WASH) infrastructure to support menstruation at home and in public spaces. Most Nigerian schools lack privacy and frequently have difficult access to restrooms, which even when they may not have doors, locks, or appropriate illumination to manage menstruation. Access to water, locations to wash and dry reusable pads and cloths, and trash cans are frequently in short supply (Parker, et. al, 2014). Even with sufficient education, all these obstacles make maintaining menstrual hygiene difficult.

Purpose of the Study

The main purpose of this study was to examine the knowledge of and hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria.

Research Questions

The following questions were raised to guide this study

1. What is the level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State, Nigeria?

2. What are the hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria?

Research Hypotheses

The following hypotheses were postulated for this study

- H₀₁: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria
- H₀₂: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria
- H₀₃: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria
- H₀₄: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Methods and Materials

This research was of the descriptive survey kind. All senior secondary school girls in Kwara State, Nigeria, made up the study's population. For this study, 450 senior high school females were selected through a multi-stage selection process. To create a total of six (6) local government areas for this study, two (2) local government areas were chosen at random from each of Kwara State's three senatorial districts in the first step. To reach the final number of 30 senior schools for this study, five (5) senior public schools from each of the selected local government areas were chosen at the second stage using a systematic sampling technique.

In order to reach the required sample size of 450 for this study, 15 senior secondary school girls from each of the chosen schools were randomly chosen at random in the third stage of the process. Data were gathered using a questionnaire created by the researcher. The survey was divided into Sections A, B, and C. The participants' demographic information, including their location and class standing, was gathered using Section A. On the subject of knowledge of menstrual hygiene practices, Section B contained fifteen (15) multiple-choice questions, whereas Section C contained six (6) questionnaire items structured in a four-response format: Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed. Experts in the field of health promotion determined the instrument's face and content validity, and the results produced a reliability coefficient of 0.74. After running a split-half reliability test on the instrument, the reliability coefficient was discovered. Following the instrument's administration, the data were analyzed using percentage and mean descriptive statistics to address the research questions, and independent t-tests and analysis of variance (ANOVA) were used to test the hypotheses at the 0.05 level of significance.

Results and Discussions

Out of the 450 senior secondary school girls sampled for this study (all of whom were senior), 127 (28.1%) were in SSS1; 177 (39.3%) were in SSS2; and 146 (32.4%) were in SSS3. Additionally, 150 (33%) of the participants were from rural areas, whereas 300 (66.7%) of the participants were from metropolitan areas.

Answering of Research Questions

Question One: What is the level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State, Nigeria?

Percentage analysis was applied to participant replies about their awareness of menstrual hygiene routines. The minimum and maximum scores for the knowledge of menstrual hygiene practices test were 0 and 15, respectively, and there were 15 multiple-choice exam items. Students with scores between 0 and 5, 6 and

10, and 11 and 15 were thus classified as having poor, moderate, and high levels of understanding of menstrual hygiene practices, respectively. Table 1 displays the statistical data in summary.

Table 1: Level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State

Level of knowledge	Score Range	Frequency	Percentage
Low	0 – 5	216	48.0%
Moderate	6 – 10	142	31.6%
High	11 – 15	92	20.4%
Total		450	100.0%

Table 1 shows that out of 240 secondary school girls sampled for this study, 216 (48.0%) of them were of low level of knowledge of menstrual hygiene practices; 142 (31.6%) had moderate knowledge while 92 (20.4%) were of high knowledge of menstrual hygiene practices. Thus, the majority of the secondary school girls were had low level of knowledge of menstrual hygiene in Kwara State.

Question Two: What are the hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria?

Due to the four-response format of the questionnaire on hindrances to hygienic menstrual practices, a cut-off score of 2.50 was used as the starting point for evaluating participants' responses. Therefore, factors were confirmed as impediments to hygienic menstrual practices if their mean scores were equal or higher than 2.50, while items with mean scores below 2.50 were noted otherwise.

Table 2: Hindrances to menstrual hygiene practices among secondary school girls in Kwara State

SN	Hindrances to hygienic menstrual practices	Mean	S.D.	Remark
1	Lack of privacy and not being able to move freely around the school during menstrual period	2.69	1.43	Affirmed
2	Taking bath trice daily to avoid menstruation odour and stains which is impossible in the school premises	2.72	1.35	Affirmed
3	Frequent washing of vagina or vulva to maintain hygienic menstrual practices	3.16	2.11	Affirmed
4	The need to use warm water to wash vagina or vulva from anus which cannot be found in the school	2.99	1.72	Affirmed
5	Frequent change of sanitary materials per day	2.77	1.28	Affirmed
6	Disposal of soaked material in the school.	2.69	1.43	Affirmed

The mean scores for all the items were higher than 2.50, as shown in Table 2. Therefore, lack of privacy and restrictions on movement during menstruation make it difficult for secondary school girls in Kwara State, Nigeria, to maintain hygienic menstrual practices. Additionally, it is not possible for them to take a daily shower inside the school, wash their vagina or vulva frequently, change their sanitary products frequently each day, or dispose of soaked materials outside the school.

Hypotheses Testing

The following hypotheses were postulated for this study

H₀₁: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Table 3: ANOVA Summary Statistics of the difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Ages	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	264.969	2	132.484	1.983	.076
Within Groups	29866.667	447	66.816		
Total	30131.636	449			

*Insignificance at $p > 0.05$

As shown in Table 3, the F-value 1.983 was obtained with a p-value 0.076 when computed at 0.05 alpha level. Since the p-value of 0.076 obtained was greater than 0.05 level of significance, the null hypothesis one was not rejected. This showed that there was no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria ($F_{(2, 447)} = 1.983, p > 0.05$).

H₀₂: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Table 4: t-test statistics showing the difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Location	No	Mean	S. D.	Df	t-value	Sig.	Remark
Rural	150	39.38	4.92	448	1.652	0.271	Not Rejected
Urban	300	41.17	4.41				

*Insignificance at $p > 0.05$

Table 4 shows that the t-value 1.652 is obtained with a p-value of 0.271 when computed at 0.05 alpha level. Since the p-value of 0.271 is greater than 0.05 level of significance, the null hypothesis one is rejected. Therefore, there was a statistically significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria ($t_{(448)} = 1.652, p > 0.05$).

H₀₃: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Table 5: ANOVA Summary Statistics of the difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Ages	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	225.562	2	112.781	1.809	.069
Within Groups	27866.667	447	62.341		
Total	28092.229	449			

*Insignificance at $p > 0.05$

As shown in Table 5, the F-value 1.809 was obtained with a p-value 0.069 when computed at 0.05 alpha level. Since the p-value of 0.069 obtained was greater than 0.05 level of significance, the null hypothesis one was not rejected. This showed that there was no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria ($F_{(2, 447)} = 1.809, p > 0.05$).

hypothesis one was not rejected. This showed that there was no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria ($F_{(2,447)} = 1.809, p > 0.05$).

H_{0c}: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Table 6: t-test statistics showing the difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Location	No	Mean	S. D.	df	t-value	Sig	Remark
Rural	150	37.71	3.89	448	1.421	0.131	Not
Urban	300	39.39	3.93				Rejected

*Insignificance at $p > 0.05$

Table 6 shows that the t-value 1.421 was obtained with a p-value of 0.131 when computed at 0.05 alpha level. Since the p-value of 0.131 is greater than 0.05 level of significance, the null hypothesis was not rejected. Therefore, there was no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on location in Kwara State, Nigeria ($t_{(448)} = 1.421, p > 0.05$).

Discussion of Findings

Findings from this study revealed that the majority of the secondary school girls studied had low knowledge of menstrual hygiene. Proper disposal of used menstrual material has been a challenge for many countries of the world. Most girls dispose of used sanitary pads or other menstrual articles into household solid waste or garbage bins. This result corroborates Carlson (2011) whose findings have shown that the girls studied had low levels of awareness about menstruation when they first experienced it. Adolescent girls reported receiving insufficient guidance prior to their first menstrual period thus experiencing shame, fear and embarrassment managing menstruation, especially while at school. However, the limited knowledge available has been passed down informally from mothers, who themselves lack knowledge of reproductive health and hygiene because of lower literacy levels and socio-economic status. Providing authentic and up to date information for young adolescent girls is critical to the supportive environment required for healthy, dignified management of menstruation.

It was revealed in this study that girls suffered several hindrances to menstrual hygiene such as lack of privacy and restrictions on movement during menstruation, inability to take a daily shower inside the school, wash their vagina or vulva frequently, change their sanitary products frequently, or dispose of soaked materials outside the school. The study of Schmitt, Clatworthy, Ratnayake, Klaesener-Metzner, Roesch, Wheeler and Sommer (2017) among displaced girls in Myanmar and Lebanon also revealed that girls reportedly lacked privacy and ability to properly dispose menstrual materials while having their periods. The respondents described challenges in finding spaces to safely and privately change their menstrual materials, clean themselves and dispose of menstrual waste. As corroborated by one of the girls during an FGD:

...The walls that make the tents and separate them are normally just blankets, plastic sheeting and transparent. Someone from the outside can see you in there; if you undressed or don't have your veil on, someone can see you....

In the same vein, study by Yaliwal, Biradar, Kori, Mudanur, Pujeri and Mohd Shannawaz(2020) among adolescent girls in North Karnataka, India revealed that School absenteeism was considerable during menstruation with 9% of the urban girls and 8.2% of the rural girls remaining completely absent during periods.

Poor menstrual hygiene and inadequate self-care are major determinants of morbidity and complications among younger females. Some of these problems include reproductive tract infections, urinary tract infections, scabies in the vaginal area, abdominal pain, absence from school, and complications during pregnancy. This corroborates the findings of Baisley, Changalucha, and Weiss (2009) who submitted that using cloths or cotton wool for menstrual hygiene is the single most predictive factor for bacterial vaginosis infection. Also, Torondel, Sinha and Mohanty (2018) submitted that more than 32% of the females used homemade alternative sanitary materials for managing their menses. The homemade alternative material reaches from old clothes/ rags to clean new clothes. These old clothes may put the women at risk for infection and allergic reactions for their skin around the genitals. This substantiates Morrison, Basnet, Bhatta, Khimbanjar, Joshi and Baral (2019) who compared with those aged greater or equal to 18 years, females younger than 18 years were 84% less likely to be their MHM practice was unsafe. Females whose fathers were illiterate were 3.57 times more likely to manage their menses unsafely. Compared with those females who never discussed menses with their mother, females who frequently discussed were 70% less likely to manage their MHM unsafely.

In the same vein, findings of this study indicated that there was no significant difference in the knowledge of menstrual hygiene practices among secondary school girls based on class levels and location in Kwara State, Nigeria. There was also no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on class levels and location in Kwara State, Nigeria. This signifies that secondary school girls regardless of their class levels and location of residents had low level of knowledge of menstrual hygiene practices and faced similar hindrances to menstrual hygiene practices. However, According to Wilbur, Kayastha, Mahon (2021) qualitative study of disabled individuals and their caregivers in Nepal, the barriers to MHM vary depending on the severity of the person's impairment. These obstacles also make it difficult for disabled people to live dignified lives and exercise their human rights, such as attending school. Persons with sight impairments expressed difficulty seeing blood on garments and bed sheets, and people with mobility disabilities emphasized difficulties using the menstrual product and disposing of it discreetly. Due to the widespread taboo around menstruation, this was stressful and upsetting for the participants who relied on cares for personal care. They felt ashamed when requesting someone to change their menstrual product and guilty when they saw their care giver handle their menstrual blood. As a result, they did not change their menstrual products as regularly as they would have liked to.

Conclusion

Based on the study's findings, it was possible to draw the conclusion that secondary school girls had insufficient (low levels of) understanding about menstrual hygiene practices. The inability of secondary school girls to move freely around the school during menstruation, the impossibility of taking a daily shower to prevent menstrual odors and stains inside the school, the infrequent washing of the vagina or vulva to maintain hygienic menstrual practices, the inappropriate disposal of wet materials inside the school, and other factors could all be as a result of inadequate knowledge of menstrual hygiene and lack of proper sanitation amenities.

Recommendations

With respect to the findings of this study, the following recommendations were proffered for this study

1. Secondary school girls should be sensitized on several ways to manage and practice menstrual hygiene which could be via social media, radio programme, seminars and workshops to equip secondary school girls on the knowledge and practices of menstrual hygiene.
2. School health educators should be charged with the responsibility of regularly passing adequate information on personal and menstrual hygiene to school girls to foster their knowledge and practices of menstrual hygiene.
3. School management should endeavour to create an enabling environment within the school premises that would allow school girls to freely dispose soaked materials and perform all the necessary hygiene practices during the menstrual period.
4. Parents and school guardians should also educate their children/wards on various ways of maintain and managing menstrual hygiene. This could encourage and improve children's practices of personal and menstrual hygiene.
5. Government should help in subsidizing sanitary pads and materials to reduce the cost and foster the practices of menstrual hygiene among secondary school girls.
6. Non-government organisations should also assist in the provision (at no or low cost) of sanitary materials to young and adolescent girls to foster the practices of menstrual hygiene in the society.

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