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ASSESSMENT OF MENSTRUAL HEALTH MANAGEMENT, LEARNING ATTITUDES AND RETENTION OF ADOLESCENT GIRLS IN SECONDARY SCHOOLS IN BWARI AREA COUNCIL, FCT ABUJA

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Abstract
Adolescent girls' menstrual health management (MHM) significantly influences their school attendance, classroom participation, and retention in school, yet remains inadequately supported in many educational settings. This study assessed menstrual health management, learning attitudes and retention of adolescent girls in secondary schools in Bwari area council, FCT, Abuja ,Nigeria. Using a descriptive survey design, data were collected from 276 female students drawn from a population of 463 adolescent girls using multistage sampling technique through a 21- item questionnaire titled Menstrual Health and School Experience Questionnaire (MHSEQ).The reliability of the instrument was established using the Cronbach's alpha coefficient, resulting in a reliability coefficient of 0.78. The data was analysed using SPSS. Findings revealed that while a majority of the respondents had access to sanitary pads (Mean = 1.77) and essential hygiene facilities like water and soap (Mean = 1.70), significant gaps remained in areas such as teacher support (Mean = 2.83) and the availability of clean, private toilets (Mean = 2.82). The study also found that menstruation adversely affects girls' concentration, participation, and overall comfort in school, with many reporting discomfort attending school during their period (Mean = 2.81) and reduced classroom engagement (Mean = 2.35). Moreover, a substantial proportion of students had missed school due to lack of menstrual products (Mean = 3.10) and fear of embarrassment (Mean = 3.02). The study concludes by recommending comprehensive menstrual hygiene education, better facilities, and stronger support from school authorities to foster a more inclusive and conducive learning environment for girls.
Keywords: Menstrual health management, Adolescent girls, Attitude, Retention and WASH

Introduction
Menstruation is a natural physiological process experienced by adolescent girls at puberty and is closely linked to reproductive health and well-being. Scholars such as Esan et al. (2023) and Sanni (2019) describe menstruation as a fundamental aspect of womanhood, while Mahon and Cavill (2013) emphasize that it remains surrounded by silence and stigma in many societies. Menstrual Health Management (MHM) involves the use of clean menstrual materials, access to safe water, sanitation and hygiene (WASH) facilities, menstrual education, and proper disposal systems (UNICEF, 2020). Increasingly, MHM is recognized as an important determinant of girls' educational participation and academic outcomes, especially in low- and middle-income countries. Adolescent girls in schools face several menstruation-related challenges, including inadequate sanitary products, poor sanitation facilities, lack of privacy, menstrual pain, and cultural stigma (Chinyama et al., 2019; UNICEF, 2020). In Nigeria, the problem is compounded by infrastructural deficiencies, as only about 16% of schools reportedly have menstruation-friendly WASH facilities (WaterAid Nigeria, 2021). These conditions are particularly severe in rural and peri-urban areas such as Bwari Area Council, where limited resources and socio-cultural beliefs hinder girls from managing menstruation with dignity. Consequently, many girls experience absenteeism, disengagement from learning, reduced classroom participation, and poor academic performance (Oche, Umar, and Gana, 2012).

Research highlights that attitude toward menstruation are influenced by factors such as age, education, religion, family background, and psychosocial well-being. Chowdhury and Chowdhury (2025) and Potter et al. (2023) found that older and more educated girls generally demonstrate more positive menstrual attitudes, while Ogunlayi, Adeniyi, and Afolabi (2019) linked positive attitudes to lower anxiety and higher self-esteem. However, poor MHM often creates anxiety and "period preoccupation," which diverts attention from learning tasks and reduces concentration in the classroom (Sommer & Sahin, 2013). The cognitive and emotional burden associated with menstruation negatively affects girls' confidence, motivation, and academic self-efficacy. Physical symptoms such as dysmenorrhea, fatigue, and headaches further limit educational engagement when schools fail to provide supportive environments. According to Bandura (1997), repeated experiences of discomfort and lack of institutional support can weaken girls' belief in their academic ability. Furthermore, menstrual stigma creates fear of leakage, odour, or humiliation, leading many girls to avoid active classroom participation, sports, and extracurricular activities (Mahon et al., 2015). This social anxiety promotes withdrawal and reduces opportunities for collaboration, leadership, and skill development.
The educational consequences of poor MHM are most visible in absenteeism and school retention. Studies consistently report that many girls miss several school days each month because of menstruation-related challenges (Grant et al., 2013; Sommer, Sutherland, and Chandra-Mouli, 2015). Frequent absence creates learning gaps, frustration, and eventual disengagement from school. In some cases, prolonged disengagement contributes to dropout and poor educational attainment. Although some studies suggest menstruation may not directly impair intellectual ability, menstrual-related stress, pain, and stigma significantly influence attendance, concentration, and classroom participation (Boyle, 1997; Shehata & Abdallah, 2020).

Cultural taboos and misinformation also intensify these challenges. Chandra-Mouli and Patel (2017) noted that many girls receive inadequate preparation before menarche and may grow up believing myths about menstruation, including restrictions on bathing or physical activity. Such misconceptions negatively shape girls' confidence and bodily autonomy, thereby affecting their attitude toward learning and participation in school activities. In many Nigerian communities, menstruation is still perceived as shameful or unclean, which discourages girls from seeking support and reinforces silence around menstrual health (Ugoji, 2014). Despite these challenges, evidence shows that effective menstrual health support can significantly improve girls' educational outcomes. Provision of sanitary products, accurate menstrual education, private WASH facilities, and supportive school environments has been associated with increased attendance, participation, confidence, and academic performance (Phillips-Howard et al., 2016; Sommer et al., 2016). These findings establish MHM as not only a health issue but also an educational and gender equity concern.

Most existing studies provide generalized findings that may not adequately reflect the lived realities of girls in this context. There is limited localized research examining how MHM influences adolescent girls' attitudes toward learning and school retention in Bwari Area Council. Therefore, the study seeks to critically examine the relationship between menstrual health management, learning attitudes, and school retention among adolescent girls in secondary schools in Bwari Area Council.

Objectives of the Study

The main purpose of the study was to assess menstrual health management, learning attitudes and retention of adolescent girls in secondary schools in Bwari Area Council. The specific objectives are:

1. To examine the level of access to menstrual health management resources among adolescent girls in secondary schools in Bwari Area Council
2. To examine attitudes of adolescent girls towards learning during menstruation in secondary schools in Bwari Area Council.
3. To examine the experience of adolescent girls on menstrual health management in relation to school retention in secondary schools in Bwari Area Council.

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Research Questions

1. What is the level of access to menstrual health management resources among adolescent girls in secondary schools in Bwari Area Council?
2. What are the attitudes of girls towards learning during menstruation in secondary schools in Bwari Area Council?
3. How does menstrual health management relate to school retention of adolescent girls in Bwari Area Council?

Methodology

This study adopted a descriptive survey research design to assess menstrual health management (MHM) in relation to attitudes towards learning and school retention of adolescent girls in secondary schools within Bwari Area Council, Nigeria. The population of the study comprised 463 adolescent girls in the in the public secondary schools in Bwari Area Council. To determine the sample size a multistage sampling technique was employed. Firstly, schools were stratified based on type location (urban and rural) to ensure proportional representation of different school settings, as infrastructure and MHM support tend to vary significantly across these categories. From the existing thirteen (13) secondary schools, six (6) public secondary schools were selected (three urban and three rural) to reflect the diversity of the school environment in the council. Within each selected school, purposive sampling was used to select participants who are adolescent girls from Junior Secondary School 2 (JSS2) to Senior Secondary School 2 (SSS2).

A total of 300 female students were selected across the six schools, though 276 questionnaires were returned by the respondents. Data were collected using a questionnaire titled Menstrual Health and School Experience Questionnaire (MHSEQ). The questionnaire was divided into two sections- Section A sought general background data from respondents, including: Age and class level. While section B comprised twenty-one (21) items on a 4 point Likert- scale of Strongly Agree (SA) Agree (Agree) Disagree (D) Strongly Disagree (SD). To ensure validity of the instrument, three experts from the field science education, educational psychology and one from Public Health Education were consulted for clarity, relevance, and coverage of the study constructs. The reliability of the instrument was established using the Cronbach's alpha coefficient, resulting in a high positive reliability coefficient of 0.78, which indicates that the instrument was consistent and dependable. Data collected were analysed using descriptive statistics, such as simple percentages, mean and standard deviation.

Results

Research Question 1: What is the level of access to menstrual health management resources among adolescent girls in secondary schools in Bwari Area Council?

Table1: Level of access to menstrual health management resources among adolescent girls in secondary schools in Bwari Area Council

S/N	Items	N	Mean	SD
1.	I have access to sanitary pads during my period.	276	1.77	0.96
2.	I can ask my teachers for help if I have a menstrual problem.	276	2.83	1.12
3.	I feel confident managing my menstruation during school hours	276	2.37	1.035
4.	I have received education on menstrual hygiene at school	276	2.00	0.88
5.	My school has water and soap available in the toilets.	276	1.69	0.81
6.	I feel comfortable changing my pad while at school	276	1.79	0.88
7.	My school provides clean and private toilets for girls	276	2.82	0.92
8.	I can change their menstrual product often during school hours when necessary	276	2.01	0.92
	Valid N (listwise)	276		

Table 1 shows that a majority of adolescent girls in Bwari Area Council have access to sanitary pads during menstruation, with a mean of 1.77 (SD = 0.97), means high availability of menstrual products among respondents.

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The mean score for the statement "My school has water and soap available in the toilets" (M = 1.70, SD = 0.81), The girls feel relatively comfortable changing their pads while at school, as shown by the mean score of 1.79 (SD = 0.88). The mean score of 2.83 (SD = 1.12) for the statement "I can ask my teachers for help if I have a menstrual problem" reflects a low level of comfort and support from teachers. The poor condition of toilet facilities has mean score of 2.82 (SD = 0.92) for the statement "My school provides clean and private toilets for girls. The respondents' confidence in managing menstruation during school hours and flexibility in changing menstrual products when needed were rated at a moderate level (Means = 2.37 and 2.01) respectively.

Research Question 2: What are the attitudes of girls towards learning during menstruation in secondary schools in Bwari Area Council?

Table 2: Attitudes of girls towards learning during menstruation in secondary schools in Bwari Area Council

S/n	Item	N	Mean	SD
9	I concentrate better in class when I'm not menstruating	276	1.92	0.96
10	I feel uncomfortable attending school when menstruating	276	2.81	1.08
11	I participate less in class during my menstrual period	276	2.35	1.02
12	Menstrual cramps prevent me from paying attention in class	276	2.38	1.00
13	I avoid asking or answering questions in class when menstruating	276	2.75	1.05
	Valid N (listwise)	276		

Table 2 illustrates that menstruation significantly impacts girls' ability to focus and participate in school. For instance, the mean score of 1.93 (SD = 0.96) for the statement "I concentrate better in class when I'm not menstruating" indicates that most girls experience a reduction in concentration during menstruation. I feel uncomfortable attending school when menstruating yielded a mean score of 2.81 (SD = 1.08), suggesting that a large number of girls feel discomfort or emotional distress during menstruation, which discourages school attendance. The mean score for "I participate less in class during my menstrual period" was 2.35 (SD = 1.02), The statement "Menstrual cramps prevent me from paying attention in class" had a mean score of 2.38 (SD = 1.00), I avoid asking or answering questions in class when menstruating" (Mean = 2.75, SD = 1.05) respectively.

Research Question 3: **How does menstrual health management relate to school retention of adolescent girls in Bwari Area Council?**

Table 3: Menstrual health management relate to school retention of adolescent girls in Bwari Area Council

S/N	**Item**	**N**	**MEAN**	**SD**
14	I have missed school because of menstruation	276	2.69	1.05
15	I have missed school because of menstrual hygiene management issue, such as lack of facilities	276	2.99	1.05
16	I have missed school because of menstrual hygiene management issue, such as lack of products	276	3.09	0.97
17	I fear being embarrassed in school during menstruation	276	3.02	0.98
18	I have thought of dropping out due to menstrual challenges	276	2.73	1.07
19	I have thought of dropping out due to menstrual challenges	276	2.64	1.11
20	Adequate menstrual care would help me stay in school	276	3.03	1.05
21	Support from teachers and school health staff improves my comfort at school during menstruation.	276	3.02	0.98
	Valid N (likewise)			

Table 3 indicates that the item "I have missed school because of menstruation" (Mean = 2.69, SD = 1.06). The statement "I have missed school because of MHM issues such as lack of facilities" yielded a higher mean of 2.99 (SD = 1.05), and "I have missed school because of lack of menstrual products" scored even higher (Mean = 3.10, SD = 0.97). A substantial number of girls also reported fear of embarrassment during menstruation as a key

deterrent from attending school (Mean = 3.02, SD = 0.98). The responses to "I have thought of dropping out due to menstrual challenges" (Mean = 2.73, SD = 1.07) and its duplicate (Mean = 2.64, SD = 1.11) are deeply concerning. The item "Adequate menstrual care would help me stay in school" (Mean = 3.03, SD = 1.05) Similarly, the statement "Support from teachers and health staff improves my comfort" (Mean = 3.02, SD = 0.98) respectively.

Discussion of the Findings

Results of the findings from table shows that a majority of adolescent girls in Bwari Area Council have access to sanitary pads during menstruation, with a low mean of 1.77 (SD = 0.97), suggesting high availability of menstrual products among respondents. This is a positive indicator, aligning with UNICEF (2019), which emphasizes that access to affordable sanitary materials is a core component of menstrual health. This supports WHO (2020), which recognizes water and soap access as essential for effective menstrual hygiene management in school settings. This suggests a sense of privacy and autonomy in managing menstruation in some school environments an encouraging trend reflecting findings by Sommer et al. (2016), who note that private spaces increase girls' comfort and confidence in menstrual care. However, some challenges persist. This lack of open communication may reflect persistent taboos and stigma around menstruation in school settings (Sommer et al., 2015; WaterAid, 2018), which often prevents girls from seeking necessary assistance.

This finding aligns with Mahon et al. (2015), who argue that even when facilities exist, a lack of comprehensive education and support systems undermines effective MHM in schools. The Positive Area is that the adolescent Girls report good access to sanitary products and basic hygiene infrastructure, such as water and soap consistent with minimum MHM standards (UNICEF, 2019). A general sense of comfort when changing pads implies some schools have functioning, private WASH facilities. Also, the Areas that Need Improvement are Communication with teachers about menstrual issues remains difficult, reinforcing the need for gender-sensitive teacher training (Sommer et al., 2015).

The data illustrates that menstruation significantly impacts girls' ability to focus and participate in school. For instance, the mean score of 1.93 (SD = 0.96) for the statement "I concentrate better in class when I'm not menstruating" indicates that most girls experience a reduction in concentration during menstruation. This finding supports research by Hennegan et al. (2019), who highlight that physical discomfort and anxiety associated with menstruation can impair cognitive engagement in class. This discomfort may stem from fear of leaks, stigma, or inadequate WASH facilities, consistent with findings by Sommer et al. (2016), who argue that the school environment often lacks the supportive infrastructure and emotional safety needed for girls to manage their periods confidently. This trend is reinforced by Hennegan and Montgomery (2016), who found that girls frequently withdraw from classroom activities due to embarrassment or physical discomfort. According to Parker et al. (2010), menstrual cramps are a major cause of absenteeism and loss of instructional time, particularly in adolescents who lack access to pain management or support services. This supports the argument by Montgomery et al. (2016) that social stigma and internalized shame around menstruation significantly suppress girls' visibility and voice in classroom settings. Adolescent girls experience Cognitive Distraction: Menstrual cramps and discomfort reduce concentration and this supported by (Hennegan et al., 2019; Parker et al., 2010). They also experience emotional distress this is line with Sommer et al., (2016) who posited that many girls feel uncomfortable being in school during menstruation, limiting their presence and participation. They also experienced Reduced Participation in learning, this indicates that stigma and physical symptoms lower class participation and engagement (Montgomery et al., 2016; Hennegan and Montgomery, 2016).

Menstrual health management challenges have a substantial effect on retention among adolescent girls in Bwari Area Council. The item "I have missed school because of menstruation" (Mean = 2.69, SD = 1.06) shows that many girls have missed school directly due to menstruation. This finding aligns with earlier research by Sommer et al. (2016) and UNICEF (2014), which found that menstruation is a leading cause of absenteeism for girls in

developing regions, particularly where school environments are ill-equipped for menstrual care. These results support Hennegan & Montgomery (2016), who noted that girls often stay home when they lack private toilets, water, or affordable sanitary pads, which also compromises their dignity and safety. This emotional and social barrier is supported by Jewitt and Ryley (2014), who avoid school during their periods. This psychosocial burden is as impactful as physical discomfort, particularly in co-educational or unsupportive school environments. According to McMahon et al. (2011), this reflects the broader systemic failure to integrate menstruation as a key issue in school retention strategies, especially for adolescent girls from marginalized backgrounds. This is consistent with Chandra-Mouli and Patel (2020), who argue that integrating menstrual education and teacher sensitization helps create a more inclusive and supportive learning environment.

Conclusion

This study has revealed that menstrual health management (MHM) significantly influences adolescent girls' access to education, participation in learning, and overall school experience in Bwari Area Council. The findings indicate that while some girls report access to sanitary pads and water and soap in school toilets substantial gaps still exist in MHM-related infrastructure and support systems within schools. Adolescent girls expressed limited comfort in seeking help from teachers and identified inadequate access to clean and private toilets, both of which impede their ability to manage menstruation confidently during school hours. The psychological and physical challenges posed by menstruation such as menstrual cramps, fear of embarrassment, and discomfort in class negatively impact focus, participation, and attendance.

Recommendations

Based on the findings the following recommendations are proposed:

1. Government, NGOs, and school administrators should collaborate to ensure the consistent availability of sanitary pads or other menstrual products in schools. Establishing a school-based distribution system would help reduce absenteeism linked to product unavailability.
2. Schools should be equipped with clean, private, and accessible toilets with running water and soap to facilitate dignified menstrual care. Regular maintenance and gender-sensitive infrastructure are essential to promoting hygiene and reducing stigma.
3. Menstrual Health Education should be strengthened schools must integrate menstrual hygiene management into the health and sexuality curriculum. Interactive sessions, peer led programs, and involvement of health professionals can improve knowledge and build confidence among girls in managing menstruation.
4. Teachers should receive gender-sensitive training to provide emotional support and accurate information to menstruating students. Creating a safe and supportive environment can help girls feel more comfortable seeking help.

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