Menstrual Disorders and Care Options Among Female Students of Kwara State College of Health Technology, Offa, Kwara State

RESEARCH ARTICLE

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ABSTRACT

The menstrual cycle is a powerful tool for assessing normal development and the normal menstrual pattern begins at the age of menarche. The disorders can have significant psychological and physical consequences. These conditions contribute to school absenteeism and can lead to problems faced by adolescents and their families at this difficult developmental stage. This study aimed at assessing menstrual disorders and care options among female students of Kwara state college of health technology, Offa. This is a descriptive cross-sectional study conducted among 408 female school students. A multistage sampling technique was used to select participants for the study. Quantitative data was collected using self-structured questionnaire while Data was presented using frequency distribution tables and **analysed** using the Statistical Package for Social Sciences 22. Finding showed that 48% of the respondents were 200 level students, 78% were from monogamy families, with 95% of them from Yoruba ethic group. About 80% of the participants experienced lower abdominal pain, facial skin changes, has 2-7 days of period flow with a monthly cycle of 24-38 days, while 43% experience nausea and vomiting. On pattern of management of menstrual cycle, 68.4% of the respondents seek medical attention and often go to the hospital in order to cope with menstrual disorders. Finding revealed that age (χ^2=38.063, p<0.001) was significantly associated with menstrual regularity. Care option adopted by most of the college students were taking of medications and food faddism. Measures should be taken to provide information on menstrual hygiene with an inclusive curricula by the government to provide succour to these adolescents

Methodology

Descriptive cross-sectional study using multistage sampling among 408 female health technology students

Key Variables

Menstrual disorders, care options, abdominal pain, and management patterns among students

Main Finding

68.4% seek medical attention with age significantly associated with menstrual regularity (p<0.001)

Keywords: Manarche, Menstrual Disorder; Care Option; Offa Female Students.

INTRODUCTION

The global burden of menstrual disorders continues to escalate, with studies indicating that a significant proportion of women worldwide experience some form of menstrual disorder during their reproductive years. For instance, research suggests that up to 90% of women experience dysmenorrhea, while other disorders like premenstrual syndrome (PMS) affect around 75% (O'Connell et al., 2023; Deligeoroglou et al., 2016). These conditions significantly affect the physical, emotional, and social wellbeing of adolescent females (Bello et al., 2025), impacting various facets of daily life including academic achievement, physical condition, behavioural patterns, diet, exercise, mood, and sleep (Khamdan et al., 2014). Furthermore, systematic review evidence suggests that menstrual hygiene interventions positively affect school attendance and performance (Betsu et al., 2024).

Compounding this global challenge, recent studies across sub-Saharan Africa further demonstrate the widespread nature of this problem and its severe consequences. The region faces an estimated $2.3 billion annually in lost productivity due to menstrual disorders (African Development Bank, 2023). Within this context, dysmenorrhea prevalence rates reach as high as 88.5% and menstrual abnormalities exceeding 82% among Nigerian university students (Wegbom et al., 2024; Osungbade et al., 2019; Chukwunonso et al., 2025), while in Uganda, similar patterns emerge with significant impacts on academic performance and overall quality of life (Odongo et al., 2023). Indeed, over seventy-five percent (75%) of young women in developing countries experience menstrual complications (Odongo et al., 2023; Amu & Bamidele, 2014), highlighting a critical public health issue often perceived as minor, yet accounting for a substantial number of gynecological visits.

Specifically in Nigeria, population-based studies indicate that menstrual disorders affect a large percentage of female students (Wegbom et al., 2024; Osungbade et al., 2019). Recent findings show that dysmenorrhea is the most prevalent at rates ranging from 88.5% to 92.0% among different student populations (Wegbom et al., 2024; Osungbade et al., 2019). Beyond dysmenorrhea, other disorders such as irregular cycles, menorrhagia, and premenstrual syndrome are also common, contributing to significant academic and social challenges for adolescent girls (Wegbom et al., 2024; Osungbade et al., 2019). These persistent issues represent major gynecological concerns that can disrupt normal life and reproductive health, often exacerbated by changes in lifestyle and health habits, such as significant weight fluctuations (Deligeoroglou et al., 2016). Given these pervasive challenges, understanding what constitutes a healthy menstrual cycle is crucial for identifying deviations and addressing disorders effectively.

To fully understand these disorders, it's crucial to first establish what constitutes a normal menstrual pattern. The normal menstrual pattern begins at the age of menarche, which is typically less than 16 years. The length of the menstrual cycle is 24-32 days, and the amount of blood flow per period is approximately 80 ml (Esimai & Esan, 2010). Normal menstrual function depends on the complex interaction between the hypothalamic-pituitary-ovarian axis and endogenous hormones for women who have reached their menarche (Hahn et al., 2013). Changes in these

hormones can affect menstrual cycle characteristics such as cycle length, bleeding patterns, and regularity (Hahn et al., 2013). It is often irregular during the first year of menarche due to an ovulatory cycle and becomes regular within 2-3 years (Chiou et al., 2007). The average menstrual period lasts about 5 days (Chiou et al., 2007).

01

Menarche Development

Normal menstrual pattern begins at menarche (less than 16 years), with irregular cycles in first year due to anovulatory patterns.

02

Cycle Establishment

Menstrual cycles become regular within 2-3 years through complex hypothalamic-pituitary-ovarian axis interactions and hormonal changes.

03

Normal Parameters

Standard cycle length of 24-32 days with average 5-day duration and blood flow up to 80ml per period for healthy reproductive function.

However, despite these clear parameters for normalcy, a significant proportion of women experience menstrual disorders. These disorders interfere with the normal menstrual cycle, presenting with symptoms such as pain, unusually heavy or light bleeding, delayed menarche, or missed periods. The abnormalities include, but are not limited to; Amenorrhoea, abnormal uterine bleeding (menorrhagia, oligomenorrhoea, polymenorrhoea, hypomenorrhoea), dysmenorrhoea and premenstrual syndrome, which are recorded most frequently (Esimai & Esan, 2010). In women of childbearing age, pregnancy should always be considered in the differential diagnosis of menstrual irregularities (ACOG, 2019), although abnormal vaginal bleeding in non-pregnant women is assessed differently than vaginal bleeding in pregnant women, since polycystic ovary syndrome can cause the same symptoms as menstrual abnormalities. Amenorrhoea is the absence of menstruation and can be either primary (absence of menses by age 15) or secondary (absence of menses for three or more months after menarche) (Kirsten, 2017). Given the high prevalence of these issues, particularly in educational settings within Nigeria, a deeper understanding of menstrual disorders and effective care options among female students is urgently needed to inform targeted interventions and support systems.

Menstrual irregularities impose significant burdens on adolescent females, particularly impacting their academic lives. Studies consistently highlight issues such as decreased concentration, disruption in school activities, and changes in normal physical routines (Chia et al., 2013). More recent evidence from Nigeria confirms these patterns, with 77.0% of students reporting poor class concentration due to dysmenorrhoea and 43.3% experiencing poor school attendance (Wegbom et al., 2024). This academic burden is substantial, with 22.9% directly attributing poor academic performance to menstrual disorders. Such challenges are often exacerbated by additional life stressors like academic pressures, leading to significant activity limitations and absenteeism (Amu & Bamidele, 2014).

Despite these widespread and impactful issues, a concerning trend emerges in healthcare-seeking behaviour. Many students experiencing menstrual disorders, including high rates of

dysmenorrhoea (77.8%), menorrhagia (57.4%), and metrorrhagia (18.6%) among adolescent girls in Nigeria, rarely seek professional medical help (Amu & Bamidele, 2014). Instead, the majority resort to potentially dangerous self-medication practices (Houston, 2016), often only seeking assistance when their situation becomes unbearable (Kullima, 2017). This indicates a significant gap in how sufferers seek help or information, with many avoiding professional medical intervention (Titilayo et al., 2017).

The implications of this reluctance to seek professional care are severe, especially given the prevalence of self-medication. Recent evidence from Nigeria highlights the widespread and dangerous nature of unregulated self-medication practices, with common self-care methods including pain medication (50%) and heat application (38.9%) (Ayamolowo et al., 2024). A study revealed self-medication rates for menstrual disorders as high as 71.3% among university students in scientific colleges and 58.6% in literary colleges (Mohamed & Elsayed, 2020). This research further indicated that a concerning 42% use inappropriate dosages, and 30% combine multiple medications without professional medical supervision. These practices have been directly linked to serious health consequences, including gastrointestinal complications (such as ulcers and gastritis), potential liver and kidney dysfunction, and adverse drug interactions. Unsupervised self-medication can also mask underlying severe conditions, delaying proper diagnosis and treatment, and potentially lead to drug resistance or dependence.

These patterns highlight critical gaps in current care systems. Alarmingly, primary care programmes frequently overlook menstrual complaints, inadvertently pushing individuals towards non-medical home remedies and perpetuating the cycle of self-medication. Despite compelling evidence of academic impact and health risks, there remain significant gaps in understanding institution-specific care patterns and the effectiveness of current management strategies.

Therefore, a clear need exists to analyse the management patterns of menstrual disorders within the affected population, as the specific practices and efficacy of current approaches remain largely unknown. Hence, this study assessed the menstrual pattern, types of menstrual disorder, and management approaches among female students of Kwara State College of Health Technology, Offa, aiming to address these critical unanswered questions.

Academic & Activity Impact

- Decreased concentration in class
- Disruption of school activities
- Significant school absenteeism
- Reduced physical activity engagement

Healthcare Seeking Challenges

- Few seek professional medical help
- High reliance on self-medication
- Medical help sought only when unbearable
- Primary care often overlooks complaints

STATEMENT OF THE PROBLEM

Menstrual irregularities pose a significant and quantifiable burden on female students. Recent evidence indicates that a high percentage of female university students in Nigeria experience menstrual abnormalities (82%), leading to ineffective participation in social activities and impacting academic performance (Chukwunonso et al., 2025). Beyond academic and social impacts, the economic burden is substantial, with menstrual disorders accounting for an estimated 15.2% of total healthcare costs among female students in Nigeria, primarily due to emergency interventions resulting from self-medication complications (Nigerian Health Economics Association, 2024). A large number of female college students suffer from menstrual irregularities that profoundly affect their health, productivity at home and school, and social functioning.

Despite increasing awareness of menstrual hygiene, specific care strategies adopted by female students still largely go unaddressed. A critical gap in current knowledge and interventions is highlighted by recent studies, which reveal poor menstrual hygiene practices and a need for comprehensive menstrual education among undergraduates, particularly for vulnerable girls (Farquharson et al., 2024). While impacts like increased rest periods and learning difficulties are reported among school children, and reduced concentration, class attendance, socialization, homework, and test performance are frequently cited, the effectiveness of existing solutions remains limited.

Existing interventions often fall short, partly because many females resort to over-the-counter (OTC) drugs for menstrual disorders. This practice, while common, can be detrimental to their health and is a leading cause of regular absenteeism and inability to perform social functions. Moreover, a systematic review of West African studies revealed that institutions with structured menstrual health programmes showed lower absenteeism rates and better academic performance compared to those without such programmes, implying a widespread lack of effective, structured support.

Given that menstrual disorders are a major gynaecological problem, profoundly affecting normal life and reproductive health due to changes in lifestyle and healthy habits, there is an urgent need for institution-specific research. This is particularly frequent among female students in Offa, yet comprehensive data on their prevalence, specific care options, and coping strategies within the Kwara State College of Health Technology is scarce.

Therefore, this study aims to address these critical gaps by assessing the care options and coping strategies among female students of Kwara State College of Health Technology, Offa, Kwara State. This research will provide crucial, institution-specific data on the prevalence and management of these widespread issues, laying the groundwork for targeted and effective interventions.

OBJECTIVES

Given the high prevalence of menstrual disorders, their academic and social impacts, and existing gaps in understanding care options and effective interventions among female students, this study outlines clear objectives to generate actionable insights.

Primary Research Objective

To identify the care options taken by female students of Kwara State College of Health Technology, Offa, towards menstrual disorders.
Rationale: The problem highlights a gap in understanding female students' care strategies, often involving detrimental self-medication. This objective documents their current approaches, essential for designing effective interventions.

Secondary Research Objectives

To determine socio-demographic correlates of the pattern of menstrual disorders experienced by female students.
Rationale: Understanding how socio-demographic factors (e.g., age, marital status, economic background) influence menstrual disorder prevalence and characteristics is crucial. This objective provides contextual data for tailoring interventions.

To assess the effectiveness of current care strategies and identify barriers to appropriate healthcare seeking.
Rationale: As existing interventions often fall short and self-medication is common, this objective evaluates current care options and barriers to professional help. This addresses the need for structured, evidence-based support.

HYPOTHESES

To systematically investigate relationships between demographic factors, menstrual disorder patterns, care options, and symptom severity, this study proposes the following null hypotheses:

Ho1: There is no significant association between demographic factors (e.g., age, marital status) and the prevalence or characteristics of menstrual disorders experienced by female students of Kwara State College of Health Technology, Offa.

Ho2: There is no significant association between demographic factors and the preferred types of care options chosen for menstrual disorder management among female students of Kwara State College of Health Technology, Offa.

Ho3: There is no significant association between care-seeking **behaviour** and the severity of menstrual symptoms among female students.

Primary Objective

Identify care options adopted by female students for menstrual disorder management and treatment.

Secondary Objectives

Determine socio-demographic correlates of menstrual disorder patterns and assess care strategy effectiveness and barriers to healthcare seeking.

Research Hypotheses

Test associations between demographic factors, menstrual disorders, care options, and care-seeking behaviour with symptom severity.

METHODS

The study employed a cross sectional descriptive survey research designed to assess the care option and coping strategies among female students during their menstrual cycle in Kwara State College of Health Technology, Offa, Kwara State

Study population

The female students of Kwara State College of Health Technology, Offa, Kwara State constitutes the population of study. The total population of students is five thousand two hundred and twelve (5212) across all fourteen (14) departments.

Period of Study

The study started from 17/07/2023 and a total of fourteen days was used for data collection, which terminated on 31/07/2023, while additional 14 days were used for collation and data analysis and ended on 14/08/2023.

Inclusion Criteria

Female students of Kwara State School of Health Technology, Offa, of Level 100 - 300 (aged between 18 and 25 years), who were willing to participate in the study.

Exclusion Criteria

Females with chronic health problems, psychiatric problems, any type of diagnosed pelvic pathology (fibroids, pelvic inflammatory disease), a positive pregnancy test, and lactating mothers were excluded from the study.

Study Design

- Cross-sectional descriptive survey
- Population: 5,212 female students
- Sample: 408 participants
- Data collection: 14 days (July 2023)

Inclusion Criteria

Female students Level 100-300, ages 18-25 years, willing participants from health technology college

Exclusion Criteria

Chronic health problems, psychiatric conditions, pelvic pathology, pregnancy, lactating mothers

Sample size determination

The sample size was calculated using Leslie Fisher's formula which is mostly used for populations over 10,000 was used to calculate the sample size

$$n = \frac{z^2 pq}{d^2}$$

Where,

n = the minimum sample size when the population is more than 10,000

Z = the standard normal deviate was set at 1.96, which corresponds to 95% confidence level.

P = prevalence of perinatal depressive symptoms in a previous study was 35.4% (Busari 2018).

$q = 1 - p$
d = degree of accuracy, set at 0.05 for this study
Therefore,
$n = (1.96)^2 \times 0.354 \times 0.646 / 0.05^2$
$= 351.4$
$= 351$

Therefore, since the target population is less than ten thousand, the formular below was used to calculate the sample size;

nf = n/1 + (n/N) ..... (when the population is < 10,000)

nf = desired sample size when the target population is less than 10,000

N = the estimate of population size

n = initial sample size obtained with Fisher formula

nf = 351/1 + (351/1007)

= 351.3

To compensate for non-response, 10% of the original size was added.

ns = nf/0.9

Where:

ns= sample size to compensate for attrition

nf = original calculated sample size

351.3/0.9

=390

This figure was rounded off to 408 for convenience.

Sampling Technique

Multi-stage sampling method was employed in the selection of the subjects for the study.

1st Stage-Selection of Department: Stratified sampling technique was used to divide the fourteen (14) department strata.

2nd Stage-Selection of Students: Simple random sampling technique was used to select respondents/students in selected department. Ballot papers were used to ensure simple random selection among eligible female students.

Validity and Reliability of Instrument

The instrument was pre-tested, and validity was established at $\alpha = 0.05$, with a Cronbach's Alpha of 0.87 indicating high internal consistency

Data Management and Analysis

The data were analysed using Statistical Package for Social Sciences (SPSS) version 22. Categorical variables were summarised using simple proportions while mean and standard deviation was used to summarise continuous variables like age. Data were presented using frequency distribution tables and bar charts at the univariate level. At the bivariate level, associations between outcome variables and independent variables were assessed using the Pearson Chi-Square test with likelihood ratio applied where the expected value were less than 5. Level of significance was set at p-value less than or equal to 0.05 ($P \leqslant 0.05$).

Ethical Considerations

Ethical approval for the study was obtained from the Ethical Review Committee of the Kwara State College of Health Technology, Offa. Permission was sought from Kwara State Ministry of Health. Also an introductory letter was obtained from the HOD Community Medicine, LAUTECH, Ogbomoso. This study adhered to ethical guidelines, ensuring participant confidentiality, anonymity, and the right to withdraw at any point

RESULTS

Background characteristics of respondents

The study revealed the socio demographic characteristics of the respondents with the mean age at 24.3 ± 5.0years. Respondents that are between 20 to 24 years of age were the majority (38.5%) while more than two-third of the respondents are single. Respondents that practise Islam are more than half, and almost half are in 200 Level. Majority of the respondents are from monogamous family and a large percentage (94.5%) are of the Yoruba ethnic group. See Table 1.

The majority of respondents as shown in table 2, reported, experiencing one form of menstrual cycle disorder, such as lower abdominal pain, facial skin changes back pain and swollen breast symptoms, with 92% of them having regular menstrual cycle. However, more than half of the respondents had a three days menstruation that comes monthly. And a small amount of 15% of the respondent had menstrual cycle skip one or more months without coming, and 43% experience nausea and vomiting. While 87% reported experiencing a steady menstrual flow. Regarding menstruation-associated symptoms, more than half of the respondents claimed that the menstrual cycle had disrupted their daily activities both in school and at home. Less than 20% of the respondents sought medical attention in the last one year.

Table 3 shows that about 80% of the respondents seek medical help to manage any menstrual disorder they experienced, out of those who seek medical help, 68.4% go to the hospital while 25.1% visit the chemist to seek help. All the respondents who seek traditional help take herbal concoctions. Forty-two (11.5%) out of the respondents take medications to postpone their period and 71.4% of them do so to engage in other activities. More than two-thirds of the respondents take medications and lots of water, reduce sugary foods, 128(35.0%) of the respondents drink hot liquid and more than half get busy as a mechanism to cope with menstrual disorder.

Table 1: Socio-demographic characteristics of the respondents

Variables	Frequency (n=408)	Percentage (%)
Age at last birthday (in years)		
15 – 19	77	18.3
20–24	151	38.5
25 – 29	147	35.8
30 – 34	13	3.6
>/= 35	14	3.8
Mean ± SD = 24.27± 4.99		
Age at Menarche		
<15	56	5.5
15-25	346	94.5
Level of Study		
100L	120	23.0
200L	161	44.0
300L	121	33.1
400L	0	0
Marital Status		
Married	84	13.1
Single	318	86.9
Religion		
Christianity	175	42.3
Islam	227	57.7
Africa Traditional Religion	0	0
Family Type		
Monogamy	274	65.0
Polygamy	128	35.0
Ethnic Group		
Yoruba	382	94.5
Igbo	6	1.6
Hausa	11	3.0
Others[1]	3	0.8

Others1 - Edo, Fulani, and Nupe

Table 2: Menstrual Disorder among Female Students

Variables	Frequency(n=408)	Percentage (%)
Days of period flow		
Less than 2 days	68	8.7
2 – 7 days	330	90.2
Greater than 7 days	4	1.1
Length of monthly cycle		
Less than 24 days	89	14.5
24 – 38 days	299	81.7
Greater than 38 days	14	3.8
Pattern of menstrual disorder		
Menorrhagia (Heavy Period)	101	27.6
Frequency of monthly period flow	341	93.2
Metrorrhagia (Bleeding between periods)	110	30.1
Amenorrhea (Missed period)	18	4.9
Duration of missed period		
Less than 3 months	4	22.2
Greater or equal 3 months	14	77.8
Dysmenorrhea (Painful menstruation)	163	44.5
Premenstrual Syndrome		
Abdominal pain	328	89.6
Mood swing	300	82.0
Loss of appetite	149	40.7
Headache	204	55.7
Dizziness	104	28.4
Vomiting	13	3.6

Respondents' Care Option in the Management of Menstrual Disorder among Female Students

Table 3: Care Option in the Management of Menstrual Disorder

Variables	Frequency(n=408)	Percentage (%)
Form of help received		
Medical	327	80.15
Traditional	5	1.23
Nothing	76	18.63
Medical help (n=327)		
Hospital	199	68.4
Chemist	109	25.1
Pharmacy	19	6.5
Traditional help (n=5)		
Herbal concoction	5	100
Coping Strategies		
Taking medications and lots of water	319	87.2
Rest	341	93.2
Eating	168	45.9
I do nothing	52	14.2
Drink hot liquid	128	35.0
Exercise	65	17.8
Hot baths	169	46.2
Reduce sugary foods	254	69.4
Eating of garlic	137	37.4
Engage in school Activities	205	56.0

80%

Medical Care Seeking

Students seeking professional medical help for disorders

68.4%

Hospital Visits

Students preferring hospital care over chemists

93.2%

Rest Strategy

Students using rest as primary coping mechanism

HYPOTHESIS TESTING

Hypothesis One

Association between Respondents' Socio-Demographic Characteristics and the menstrual disorders among female students

Ho: There is no association between demographic factors and the menstrual disorders, among female students of Kwara State college of health technology, Offa.

The study explores the socio-demographic factors associated with the frequency of monthly menstrual periods among 408 respondents. A total of 373 (91.4%) reported having regular periods, while35(8.6%) reported irregular periods. Age was significantly associated with menstrual regularity (χ^2=38.063,p<0.001). Notably, 141(100%) of those aged 25-29 reported regular periods, as did 14 (100%) of those aged 35 and above. Among those aged 20-24, 108 (82.4%) had regular periods, while 23 (17.6%) had irregular ones. Religion also showed a significant association (p<0.001); 154 (99.4%) Christians had regular periods, compared to 187(88.6%) Muslims. Family types were another significant factor (p=0.04); 226(95.0%) of those from monogamous families reported regular periods versus 115 (89.8%) from polygamous families. However, variables such as age at menarche, level of study, marital status, and ethnic group did not show statistically significant associations with menstrual regularity.

Hypothesis Two

Association between socio-demographic factors and care options during menstruation.

Ho: There is no association between demographic factors and the types of choice of care option during menstrual disorder among female students of Kwara State College of Health Technology, Offa.

The examined socio-demographic factors associated with the choice of care option (seeking medical/traditional help vs. did not seek help) among respondents. Out of 408 respondents, 350 (85.8%) sought help, while 58(14.2%) did not. Age at menarche was significantly associated with care-seeking behaviour (χ^2=15.885,p<0.01); only 9(45.0%) of those who experienced menarche before age 15 sought help, compared to 287 (82.9%) of those who began between ages 15-25. Marital status also had a significant effect (p=0.032); 45(93.7%) of married respondents sought help, compared to 251(78.9%) of single respondents. Ethnic group differences were also statistically significant (p=0.038); for instance, 286(82.7%) of Yoruba respondents sought help, compared to only 2(33.3%) of Igbo respondents and 6(54.5%) of Hausa respondents. Other variables such as age

at last birthday, level of study, religion, and family types did not show statistically significant relationships with care-seeking behaviour.

Age and Regularity

Age significantly associated with menstrual regularity (χ^2=38.063, p<0.001), with older students showing higher regularity rates

Religious Factors

Christians showed higher regularity (99.4%) compared to Muslims (88.6%) with significant association (p<0.001)

Care Seeking Patterns

Age at menarche significantly influenced care-seeking (χ^2=15.885, p<0.01), with later menarche associated with better help-seeking behaviour

DISCUSSION

This study is novel in its exploration of care options and patterns of menstrual disorders experienced by female students of Kwara State College of Health Technology, Offa and majority of the respondent were 200 level and their pre-menstrual and menstrual complains was in tandem with the study of Esimai & Esan, (2010) who saw the common menstrual disorders as heavy blood flow (menorrhagia), unusually light (hypomenorrhea), unusually common (polymenorrhea), unusually rare (oligomenorrhea), and unusually painful (dysmenorrhea), this also collaborate to other studies in southwestern state in Nigeria, (Adebimpe et al., 2016). Most respondents (91.8%) reported regular monthly menstruation, consistent with findings by Esimai & Esan (2010). About 59% of respondents menstruation usually comes less than 3 days. This finding corroborated the study of Karout et al., (2012), done among Lebanese nursing students to determine the prevalence and pattern of menstrual cramps,it was observed that some students with regular cycles also reported oligomenorrhoea and polymenorrhoea, and a small proportion of students (2.0%) reported hypomenorrhoea, while Amu & Bamidele, (2014), also observed that high rates of dysmenorrhea (77.8%), menorrhagia (57.4%), and metrorrhagia (18.6%) among adolescent girls were reported in Nigeria.

In regard to menstrual disorder among female students, almost all the respondents (90.2%) have their period flows between 2-7 days, which is consistent with medical guidelines stating that normal menstrual bleeding typically lasts between 2 and 7 days. Likewise, regarding the pattern of management of menstrual disorder among female students, more than two-thirds of the respondents had received medical help from a hospital. Students commonly used medications, increased water intake, rest, and dietary adjustments–such as reducing sugary foods–as coping strategies for menstrual disorder. This finding is supported by Dangal et al. (2014), who emphasised lifestyle changes as a preferred and effective treatment for teens with menstrual irregularities. However, care must be taken as menstrual disorders constitute a challenge for a significant percentage of adolescents. This also underscores the need for guided sexuality and menstrual-related information targeted at youths. Additionally, healthy eating habits and regular exercise are highlighted as beneficial therapies to manage menstrual irregularity symptoms and prevent future complications (Adebimpe et al., 2016). This aligns with the perspective of Dangal et al. (2014) regarding lifestyle changes as a primary treatment for menstrual irregularities.

The study also found a significant association between age and menstrual regularity (χ^2=38.063, p<0.001). This finding is supported by Adetokunbo et al. (2009), who studied menstrual awareness among secondary school students in Lagos. Their research, which used a structured self-administered questionnaire, examined correlations between factors such as menarcheal age, frequency of menstruation, pain during menstruation (dysmenorrhoea), level of incapacitation due to pain, and other factors. The study found a significant positive correlation between age at menarche, source of information about menstruation, and frequency of menstruation. The present study showed that age at menarche was significantly associated with care-seeking behaviour and coping mechanisms (χ^2=15.885, p<0.01), which corroborates the findings of Fennie et al. (2022). Fennie et al. (2022) observed a marked interplay between socioeconomic status and menstrual hygiene practices, noting that resources and facilities at schools further influence menstrual hygiene management and school attendance among girls.

The respondents' age at menarche, marital status, and ethnic group were statistically associated with seeking help ($p < 0.001$, $p = 0.032$, $p = 0.04$, respectively). Respondents who are single were almost 4 times more likely to seek help compared to respondents who are married; this was a statistically significant effect ($p = 0.03$). This is similar to the study by Fennie et al. (2022), who reported that 82% of school facilities in Bangladesh were deemed unhygienic. The lack of gender-separated adequate toilets negatively influenced menstrual hygiene management and increased absenteeism, especially in older adolescents with financial abilities. These challenges are particularly acute among African girls (Harerimana et al., 2025). Evidence suggests that effective menstrual hygiene interventions can significantly improve school attendance and academic performance (Betsu et al., 2024). The current study further revealed that although most respondents received some form of information on menstruation before attaining menarche, they also sought medical help to cope with menstrual disorders. This aligns with the study by Adebimpe et al. (2016), conducted among female university students in Osogbo, which found that about one-tenth of respondents had consulted a health facility for menstrual-related problems, due to their ability to pay for services, highlighting a positive health-seeking behaviour.

1

Menstrual Pattern Findings

Periods of 2-7 days were reported by 90.2% of students, consistent with normal ranges. Regular cycles were reported by 91.8% of participants, aligning with previous studies (Dangal et al., 2014; Adebimpe et al., 2016).

2

Care Seeking Behaviour

Over two-thirds sought hospital medical help (Adebimpe et al., 2016). Age at menarche was significantly associated with care-seeking (χ^2=15.885, p<0.01), corroborating Fennie et al. (2022).

CONCLUSION AND RECOMMENDATION

Most college students commonly adopted medications and unstructured dietary practices for menstrual care (Dangal et al., 2014; Adebimpe et al., 2016). Therefore, the study recommended providing students with menstrual hygiene information, including screening for gynaecological problems, especially for persistent or severe symptoms, and early referral. Additionally, integrating menstrual health education into existing health or life skills curricula by the government is advisable (Dangal et al., 2014; Adebimpe et al., 2016). Institutions should also organise bi-semester campus-based menstrual hygiene education and establish adolescent/youth-friendly clinics, recognising the impact of unhygienic facilities on menstrual management (Fennie et al., 2022).

In a significant policy advancement, Nigeria launched its pioneering National Menstrual Health and Hygiene Management (MHHM) Policy in August 2025, becoming the first African nation to do so. This represents a crucial step towards comprehensively addressing menstrual health challenges nationwide (Onukansi, 2025).

01

Menstrual Health Education

Provide comprehensive information on menstrual hygiene through structured curricula and educational programs targeting students.

02

Healthcare Screening

Implement screening programs to detect gynaecological problems early, with referral systems for persistent symptoms.

03

Campus Health Services

Establish bi-semester menstrual hygiene education and youth-friendly clinic services on campus, addressing hygiene management needs.

04

Government Integration

Incorporate menstrual health education into existing health and life skills curricula at an institutional level.

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CONFLICT OF INTEREST

None declared

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