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Association Between Knowledge and Practices of Menstrual Hygiene Management of Female Adolescents Among Teachers in Ile-Ife, Nigeria

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ABSTRACT

This paper explores the relationship between knowledge and practices of menstrual hygiene management among female students and teachers in Ile-Ife. A descriptive cross-sectional design was used for the study. A simple random sampling method selected 280 respondents. A researcher-designed questionnaire was employed to collect data. The instrument was validated by experts, and a reliability coefficient of 0.82 was achieved using Cronbach's Alpha. Data were analyzed using frequency, percentage, charts, and chi-square tests. The results show that 86% of respondents have good knowledge of menstrual hygiene management. Additionally, 84% of teachers have poor practices during their students' menstrual periods. There is no significant association ($\chi 2=1.523$, $P > 0.05$) between teachers' knowledge of menstrual hygiene management and their practices during their students' menstrual periods. Therefore, it was concluded that there is no significant link between teachers' knowledge and their practices regarding menstrual hygiene management based on these findings.

Keywords: Menstrual, Hygiene, Management, Knowledge, Practices, Adolescents, Teachers

INTRODUCTION

Due to the need to lead healthy, productive, and dignified lives, the management of menstruation is critical to adolescent girls [1]. Adolescent girls should be provided with the basic knowledge of how to manage bleeding as a result of the menstrual process [2]. This necessitates sufficient access to clean water, sanitation, and hygiene facilities, access to information so they can know the menstrual cycle and how to deal with menstruation hygienically, and help them manage the menstrual cycle better since women live up to an average of six to seven years with their menstrual cycle [3].

The response to menstruation is based on knowledge and awareness about the topic. The way a girl is informed about menstruation and its related changes is possibly related to the way she responds to the experience of menarche [4]. Menstruation is a natural process, but there are several misconceptions and practices associated with it, some of which lead to negative health consequences. The fact that the menstruating girls are isolated and restrictions imposed on them within the family has only strengthened a negative view of this phenomenon [5].

The absorption of menstrual blood on clean material that can be changed in privacy is known as menstrual hygiene management. It also includes the presence of soap and clean water, to clean reusable sanitary materials and the body, and an appropriate disposal site for used materials [6]. Even today, menstruation is shrouded in taboos and social cultural inhibitions, and, therefore, adolescent girls are still unaware of scientific facts and hygienic reproductive health practices [7,11]. The social stigma surrounding menstruation makes many girls and women practice very dangerous hygiene practices. With no medium of reporting menstrual hygiene issues, girls and women endure discomfort and infection, find it difficult to urinate during their menstrual period, and use whatever cloth they find lying around, old or dirty, but girls are not reporting to medical practitioners [8]. Thus, in an attempt to instill awareness on menstrual hygiene management, the first global menstrual day was observed on 28 May 2014 [9].

In the year 2005, the global community expected to reach a goal of gender parity (a ratio of boys and girls in primary schools) and fifteen years later after this, only an approximate of 60% of the countries had attained this target, yet, Drop-out rates are the highest in the sixth grade of primary school and junior secondary school students as well as among girls than boys [10]. Many girls in Sub-Saharan Africa continue to face extremely difficult scenarios every month, which can have disastrous health, wellbeing and empowerment consequences [3,11]. To create sufficient and evidence-based measures and programmes, there must be a comprehensive knowledge of the dynamics of this phenomenon, and, unfortunately, they are still lacking in a variety of geographical and cultural settings, and especially in Nigeria. Nevertheless, increasing numbers of NGOs, UN agencies, donors, researchers, and private sector organizations are reacting to the issues girls experience in attending school during their monthly menses. Sub-Saharan Africa is industrializing, and many girls still find themselves in very tricky situations due to the monthly cycle, which may have severe health, wellbeing and school attendance consequences.

A study conducted in Lagos State reported that although teachers were aware of basic menstrual concepts, many lacked the skills and institutional support required to effectively manage menstruating students in schools [12]. Similarly, another study found that cultural beliefs and discomfort discussing menstruation limited teachers' involvement in menstrual hygiene education. Research in northern Nigeria also revealed that inadequate school sanitation facilities negatively affected both teachers' practices and girls' menstrual experiences [12,14]. These studies collectively indicate a persistent gap between knowledge and practice, underscoring the need for comprehensive teacher training, supportive school policies, and improved menstrual hygiene infrastructure to enhance menstrual health management in Nigerian secondary schools.

Ile-Ife is a city in Osun State with a mix of urban and peri-urban populations. Studies have shown that sociocultural beliefs, educational settings, and community norms significantly influence menstrual knowledge and practices. Nigeria, and Osun State in particular, have documented challenges related to menstrual hygiene awareness, school absenteeism during menstruation, and inadequate facilities. Conducting the research in Ile-Ife provides a context where these factors are salient and measurable. The study location hosts a number of primary and secondary schools. This concentration of educational facilities ensures ready access to a diverse sample of teachers and female adolescents. Teachers in Ile-Ife are critical stakeholders in the delivery of health education, including reproductive and menstrual health. In many Nigerian communities, teachers often serve as informal health educators due to gaps in formal health systems. Earlier research in Nigeria has identified inadequate menstrual hygiene awareness, poor sanitation facilities in schools, and harmful cultural beliefs as barriers to effective MHM. These issues have been particularly noted in Southwestern Nigeria, making Ile-Ife a representative setting where these public health concerns manifest and where findings may inform local policy and school health programs. Findings from Ile-Ife can contribute to interventions in similar Nigerian contexts. Because the city reflects both traditional and modern influences, the study results are potentially generalizable to other peri-urban and semi-urban settings in Nigeria, especially in the southwestern region. This enhances the utility and applicability of research outcomes beyond the immediate study area. Thus, the current study analyzed the relationship between menstrual hygiene management knowledge and practices among female secondary school students and teachers in Ile-Ife, Osun State, Nigeria.

METHODOLOGY

This study was a descriptive cross-sectional study design. This research was done among the secondary school teachers in Ife town in Osun State, South West, Nigeria. There are two local governments in Ile-Ife, i.e., Ife Central and Ife East. Ife Central is considered an Urban area while Ife East is considered a rural area; both local governments were stratified into two with equal representation from each local government. An estimation of sample size was done by the Fisher formula for quantitative studies. A sample size of 280 was taken out of the total population of nine hundred and thirty-three secondary school teachers in the two local government areas in Ile-Ife to come up with an estimated sample size of 280, including the 10% non-response rate, making it one hundred and forty teachers representing the two local government areas respectively.

Sample Size calculation

$$\frac{N}{1+N(e)^2}$$

$$\frac{933}{1+933(0.05)^2} = 280$$

The two-stage sampling technique was performed; stage one involved simple random sampling, where ten schools, each of the two local governments, were sampled. The participants of the study were recruited at stage two according to their willingness to take part in the survey. The validated self-structured questionnaire was adopted as the research tool of the study. The questionnaire was designed using existing literature from previous related studies; section A had the bio-data, section B had the knowledge of teachers of menstrual hygiene management, and section C had practices. The Cronbach Alpha formula was used to acquire the reliability coefficient of 0.82. The statistical product of service solution (IBM SPSS 23) was used to enter and then analyse the data. Descriptive analysis was utilized to establish the knowledge and practice of teachers on menstrual hygiene management of adolescent girls,

whereas inferential statistics with chi-square was utilized to establish the association with a p-value being 0.05 level of significance.

RESULTS

Research Question 1: What is the level of knowledge of teachers on menstruation and menstrual health management of adolescent girls?

Table 1: Knowledge Concerning Menstruation and Menstrual Hygiene Management

	Yes		No	
	F	**%**	**F**	**%**
Girls should be taught at home about menstruation before menarche	254	90.7	26	9.3
Menstruation comes every month after a girl starts her period	242	86.4	38	13.6
Menstruation is a result of Hormonal changes	234	83.6	46	16.4
Girls may get pimples (acne) during their period	231	82.5	49	17.5
Menstrual blood comes from the womb	190	67.9	90	32.1
Menstrual blood is unhygienic	170	60.7	110	39.3
Menstrual blood contains harmful substances	86	30.7	194	69.3
Males also menstruate	21	7.5	259	92.5
Starting menstruation means you are ready to get married	22	7.9	258	92.1
Menstrual hygiene management practices should not be taught in school	191	68.2	89	31.8
Menstruation is not a disease	260	92.9	20	7.1
Starting menstruation means a girl can get pregnant	193	68.9	87	31.1

Table 1 presents the level of teachers' knowledge regarding menstruation and menstrual hygiene management (MHM). The findings indicate that overall knowledge was relatively high, particularly on basic menstrual facts. A large majority of respondents (90.7%) agreed that girls should be taught about menstruation at home before menarche, while 86.4% correctly identified that menstruation occurs monthly after menarche. Similarly, 83.6% recognized menstruation as a result of hormonal changes, and 82.5% acknowledged that girls may experience acne during menstruation.

However, knowledge gaps and misconceptions were evident. Only 67.9% correctly stated that menstrual blood comes from the womb, while a notable proportion perceived menstrual blood as unhygienic (60.7%). Furthermore, 30.7% believed menstrual blood contains harmful substances, reflecting persistent myths surrounding menstruation. Encouragingly, most respondents rejected common cultural misconceptions: 92.5% correctly stated that males do not menstruate, 92.1% disagreed that menarche signifies readiness for marriage, and 92.9% correctly identified menstruation as not being a disease. Additionally, 68.9% acknowledged that menstruation indicates the potential for pregnancy.

Overall, the table suggests that while teachers possess adequate foundational knowledge, misconceptions about menstrual blood and hygiene still exist and may negatively influence menstrual hygiene education and support in schools.

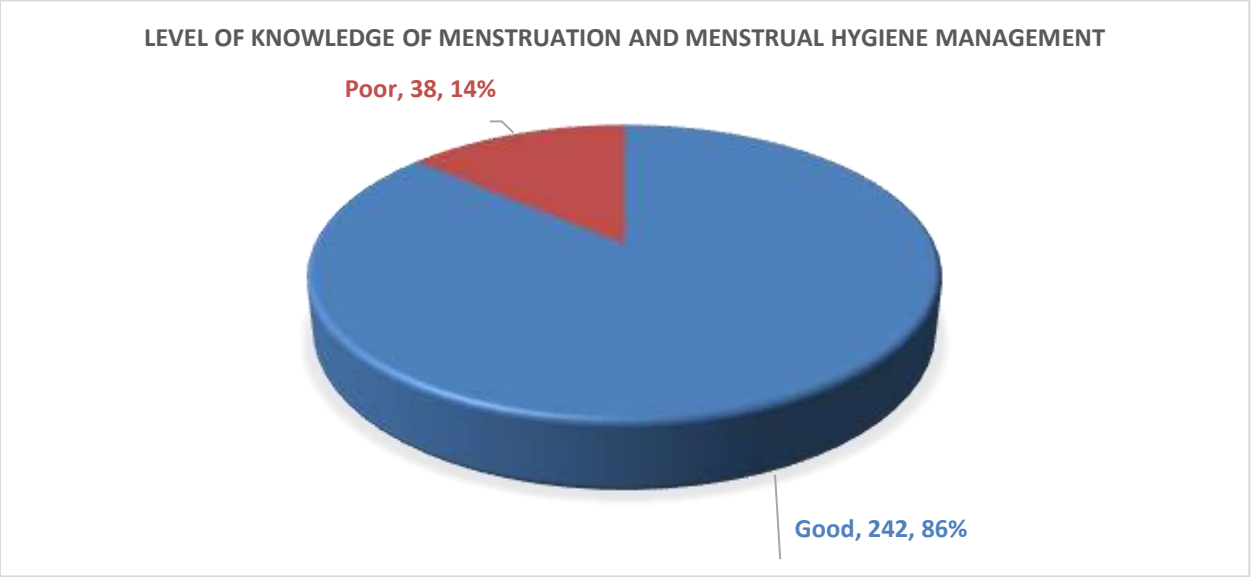

Figure 1: Proportion of teachers with good knowledge of menstrual hygiene management

Table 2: Practices of Teachers on Menstrual Hygiene Management of Adolescent Girls

Practices	Always		Sometimes		Never	
	F	%	F	%	F	%
I know the menstrual cycle of my students	37	13.2	129	46.1	114	40.7
I do not allow menstruating girls to participate in sporting activities	25	8.9	113	40.4	133	47.7
I do not allow menstruating girls to participate in manual labour in school	60	21.4	114	40.7	106	37.9
I give students money to buy menstrual absorbent materials	44	15.7	126	45.0	110	39.3
I provide emotional support to students menstruating	102	36.4	128	45.7	50	17.9
I separate menstruating girls from others in class	16	5.8	13	4.6	251	89.6
I release menstruating girls to go home when I discover	9	3.2	97	34.6	174	62.1
I do not allow menstruating girls to come to school	19	6.7	99	35.4	162	58.9
I promote menstrual hygiene management regularly in school	18	6.5	60	21.4	202	72.1
I teach girls on menstrual hygiene management	129	46.1	103	36.8	48	17.1
I advocate for improved menstrual hygiene management in schools	149	53.2	88	31.4	43	15.4

Table 2 describes the practices of teachers regarding menstrual hygiene management of adolescent girls. The results reveal inconsistent and generally suboptimal practices despite relatively good knowledge levels. Only 13.2% of teachers always knew the menstrual cycle of their students, while 40.7% never did. Although most teachers did not routinely restrict girls from participating in sports or school activities, a considerable proportion sometimes restricted participation in sporting activities (40.4%) and manual labour (40.7%).

Supportive practices such as providing money for menstrual absorbents and emotional support were inconsistently applied. Less than half of the teachers always provided emotional support (36.4%), and only 15.7% always provided money for menstrual materials. Notably, discriminatory practices were less common, as 89.6% reported never separating menstruating girls from others in class. However, school-level promotion of menstrual hygiene management was weak, with 72.1% of teachers reporting that they never promoted MHM regularly in school. While 46.1% always taught girls about menstrual hygiene management, this suggests that structured and institutionalized MHM education remains inadequate.

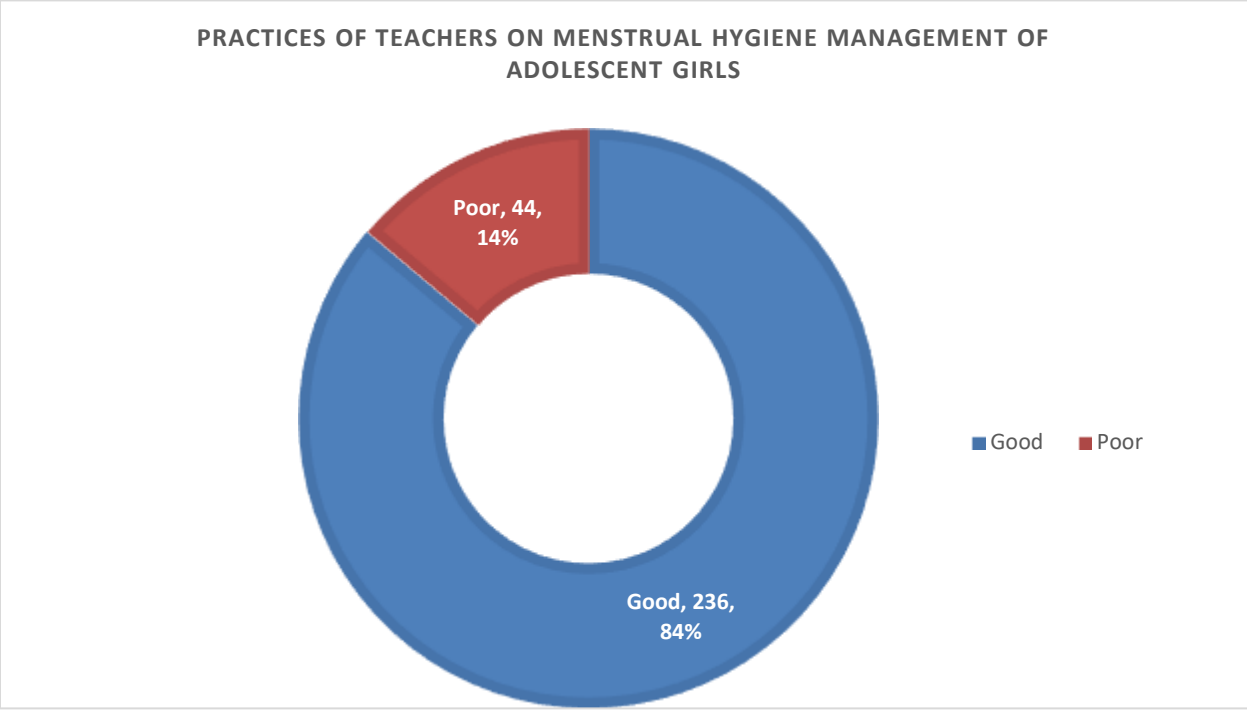

Figure 2: Proportion of teachers with good menstrual hygiene management Practices

Table 3: Association between Knowledge of Menstrual Hygiene Management of Teachers and Practices of Teachers during Menstrual Period of Their Students

Knowledge of menstrual hygiene management among teachers	Practices of teachers during the menstrual period of their students		χ^2	df	p-value
	Good	Poor			
Good	223 (79.7)	19 (6.8)	1.523	1	0.217
Poor	13 (4.6)	25 (8.9)			
Total	236 (84.3)	44 (15.7)			

Table 3 shows the association between teachers' knowledge of menstrual hygiene management and their practices during the menstrual period of their students. Although a higher proportion of teachers with good knowledge demonstrated good practices (79.7%) compared to those with poor knowledge (4.6%), the association was not statistically significant ($\chi^2 = 1.523$, $p = 0.217$). This finding indicates that good knowledge alone did not significantly translate into good practice among teachers. Other factors, such as school policies, cultural beliefs, availability of menstrual hygiene facilities, and institutional support, may play a more influential role in determining teachers' practices than knowledge alone.

DISCUSSIONS

The findings of this research show that 48.6% have good knowledge concerning menstrual hygiene management, which is in agreement with the findings conducted in Nepal by [11], where less than 50% of the teachers have good knowledge of menstrual hygiene management. These findings are consistent with studies conducted in Nigeria, which reported that teachers and adolescents generally have moderate to high awareness of menstruation as a biological process [12]. Similarly, a similar study reported adequate baseline menstrual knowledge among secondary school stakeholders in southwestern Nigeria [12]. Despite this generally good knowledge, misconceptions were still evident, particularly regarding the nature of menstrual blood. A substantial proportion of respondents perceived menstrual blood as unhygienic or containing harmful substances. This mirrors findings from other Nigerian studies, where cultural beliefs and taboos continue to influence perceptions of menstruation even among educated populations [13,14]. Such misconceptions may reinforce stigma and limit open discussion of

menstrual issues within schools. Encouragingly, most teachers rejected harmful myths such as menstruation being a disease, males menstruating, or menarche indicating readiness for marriage. Similar patterns were observed in studies among teachers and adolescents in Lagos State, where respondents largely disagreed with extreme menstrual myths but still retained subtle negative perceptions about cleanliness and restriction [13].

These findings are consistent with Nigerian studies showing a disconnect between knowledge and practice among teachers and school authorities. A study reported that although most teachers had good knowledge of menstruation, more than half demonstrated poor or inconsistent supportive practices toward menstruating students. Also, it was reported that teachers often lacked the confidence, resources, or institutional backing to actively support girls during menstruation [13]. The limited involvement of teachers in monitoring students' menstrual needs and promoting MHM within schools may also be influenced by cultural norms that frame menstruation as a private issue. Studies in northern and southern Nigeria have shown that menstruation is frequently viewed as a personal or family matter, reducing teacher engagement even when knowledge exists [12,14]. Furthermore, infrastructural and policy constraints may hinder effective practice. Research conducted in Lagos State demonstrated that poor water, sanitation, and hygiene (WASH) facilities in schools significantly limit both teachers' ability and willingness to support menstrual hygiene management [12].

This finding aligns with previous Nigerian studies which have demonstrated that knowledge alone is insufficient to influence behaviour. A Nigerian study similarly reported that teachers' menstrual knowledge did not significantly predict their supportive practices. It was also observed that teachers with adequate menstrual knowledge often failed to translate this knowledge into practice due to cultural discomfort, lack of training, and absence of clear school policies [13]. In addition, studies among Nigerian adolescents indicate that even when girls possess adequate menstrual knowledge, poor practices persist because of structural barriers such as lack of sanitary materials, inadequate toilets, and unsupportive school environments [12,14]. This reinforces the argument that behaviour is shaped by multiple factors, including institutional support, availability of resources, and sociocultural norms. The absence of a significant association in this study underscores the importance of comprehensive interventions that go beyond knowledge dissemination to include teacher capacity building, policy implementation, provision of menstrual materials, and improvement of school WASH facilities.

CONCLUSION

Fewer than the average number of teachers have good knowledge of menstrual hygiene management, although more than half practice poor menstrual hygiene management for their adolescent girls. Also, there is no significant association between the knowledge of menstrual hygiene management of teachers and the practices of teachers during the menstrual period of their students.

Recommendations

The findings of this study led the researcher to recommend the following

1. The frequent teacher trainings must incorporate menstruation-related issues in the teaching programs to enhance the knowledge of teachers in handling menstrual hygiene, and not to assume that every teacher is fully equipped on facts regarding reproductive health and menstruation.
2. Both male and female teachers need to be targeted. Neither should we adopt an attitude where menstruation is something strictly female and not a male subject. Their attitudes and comprehension matter, and in practice, there might not always be a female teacher.
3. Investing more money in facilities like toilets, a working water system, soaps, and other necessities as advised by UNICEF to girls in school, is part of the policies that the government policy makers must put into consideration to curb female absenteeism and consequently enhance the economic productivity of the future generations.

Limitation of the study

The limitation of the study is that it is self-reported by the respondents, and bias could not be avoided; however, the purpose of the study was explained to the teachers to minimize the bias. Also, the study was cross sectional study, and cause and effect relationship could not be determined. The interview was used to probe further into the perception and involvement of teachers in the menstrual health hygiene of their students.

Conflict of Interest

The authors do not have any conflicts of interest to declare.

REFERENCES

1. Augustus O., Bashiru, M. K., Camilla, M. B., Alusine, H. K., Saffa, L. & Yahaya K. (2020). Menstrual hygiene management- A study among adolescent girls in five schools in Bo District, Sierra Leone. *Journal of Clinical Case Studies Reviews & Reports. 2*(4), 5-8.
2. Oche M O, Umar A S, Gana G J, Ango J T. (2012). Menstrual health: The unmet needs of adolescent girls' in Sokoto, Nigeria. *Scientific Research and Essays 7*, 410 - 418.
3. Sommer, M. (2010). Where the education system and women's bodies collide: The social and health impact of girls' experiences of menstruation and schooling in Tanzania. *Journal of Adolescence 33*, 521-529.

4. Kamath, R., Ghosh, D., Lena, A., & Chandrasekaran, V. (2013). A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk, Manipal, India. *Global Journal of Medicine and Public Health 2*(4), 277-296.
5. Santina, T., Wehbe, N., & Ziade, F. (2012). Exploring dysmenorrhoea and menstrual experiences among Lebanese female adolescents. *Eastern Mediterranean Health Journal, 18 (8)*, 857 - 863.
6. World Health Organization-United Nations Children Fund (WHO-UNICEF) (2012). Declaration of Alma Ata.
7. Shamsudeen, M., Roderick E. L., & Issahaku, A. (2020). Menstrual hygiene management and school absenteeism among Adolescents in Ghana. Results from a School-Based Cross Sectional Study in a Rural Community. *International Journal of Reproductive Medicine* 2020, 1-9.
8. Ade, A., & Patil, R. (2013). Contraceptive practices and awareness of emergency contraception among Muslim women of urban slum of Raichur, Karnataka. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 3*, 70-74.
9. United Nations Education Social and Culture (UNESCO) Institute for Statistics (UIS) (2014): Education Statistics Data at a Glance.
10. National Population Commission (NPC) [Nigeria] and ICF Macro (2019). *Nigeria demographic and health survey*. Abuja, Nigeria: National Population Commission and ICF Macro
11. Thakre, S. B., Thakre, S. S., Reddy, M., Rathi, N., Pathak, K. & Ughade, S. (2018), Menstrual hygiene: Knowledge and practice among adolescent school girls of Saoner, Nagpur District. *Journal of Clinical and Diagnostic Research. 5*(5), 1027-1033.
12. Adegoke, A. A., Ajala, O., & Olowokere, A. E. (2021). Menstrual hygiene management practices and school absenteeism among adolescent girls in Lagos State, Nigeria. Tropical Medicine & International Health, 26(6), 705–713.
13. Lawal, A. M., Idowu, A. O., & Adebowale, S. A. (2022). Knowledge, attitude and practices of menstrual hygiene management among secondary school teachers in southwestern Nigeria. African Journal of Reproductive Health, 26(4), 89–99.
14. Oche, M. O., Umar, A. S., Gana, G. J., Ango, J. T., & Okafoagu, N. C. (2019). Menstrual health: The unmet needs of adolescent girls' menstrual hygiene management in Sokoto, Nigeria. Scientific African, 4, 2-10.

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