

Assessment of female students' perception on access and utilization of water and sanitation facilities for menstruation management in higher education institutions in Uganda

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[Correction added on 23 November 2024, after first online publication: Harriet Kebirungi and Elizabeth Opit were added

Abstract

The main purpose of this study was to assess female students' perception of access and utilization of water and sanitation facilities for menstruation management in HEIs. A qualitative research design was embraced, and it was exploratory while gathering responses from the participating respondents using semi-structured interviews, focus group discussions and observation from course coordinators from six faculties, students guild leadership, and selected university managers who were purposively selected and regarded to be more knowledgeable with university affairs as far as learners' social welfare was concerned. The study found that many students did not have adequate access to water and sanitation facilities for menstruation management. They also lack adequate menstrual hygiene management education and their rights to sanitation and water facilities for menstruation management in terms of the menstrual cycle, the importance of washing body parts, and the issue of stigma during the menstruation period.

as authors and Harriet Kebirungi as co-corresponding author.]

The study recommended that the Directorate of Gender at the university should review and work very closely with the Department of Estates and Works to improve the maintenance and provision of water and sanitation facilities for menstruation management.

KEYWORDS

female students' perception, higher education, menstruation management, utilization of water and sanitation

1 | INTRODUCTION

Menstruation management refers to self-efficacy regarding menstrual care, including having access to clean and reliable absorbent materials, safe and functional facilities for changing used sanitary pads and cleaning during menstruation, convenient and acceptable disposal methods, and accurate knowledge of health behaviors and hygienic practices during menstruation. Failure to effectively manage menstruation, diseases such as skin irritations, urinary tract infections, worm infestation, lymphatic filariasis, bowel complications, mental stress, and stigma among female students are likely to become inevitable (Bartram & Cairncross, 2010).

Menstruation is a necessary and natural aspect of life, although it negatively impacts women's and girls' quality of life (Mao et al., 2023). Menstrual hygiene plays a crucial role in basic sanitation, hygiene, and reproductive health services, all of which every woman and girl has a right to (Kerketta et al., 2022). It is also essential to the dignity and well-being of women and girls. Around 64% of women and girls worldwide who are of reproductive age undergo monthly menstruation lasting 2 to 7 days (Mansoorianfar et al., 2022). A small percentage of girls and women who are menstruating work in various settings, including schools (Kebirungi, Kabonesa, Kimwaga, et al., 2015). Furthermore, because menstruation is necessary for achieving the goals of gender equality, education, employment, and health for all individuals who experience it, academics, feminist activists, legislators, and practitioners acknowledge the significance of menstruation (Kebirungi, Kabonesa, Luboobi, et al., 2015). Nonetheless, there are still a lot of unanswered questions about menstruation and how to manage it in school settings. The necessary focus has not been given to candid conversations regarding menstruation and its management.

Menstruating women and girls are viewed as “unclean,” “contaminated,” and “impure” as a result of this information gap. The circumstance can result from a deficiency of public health and workplace regulations that support accessibility and equitable access to facilities for accommodating girls and women who are menstruating in educational institutions (Thurairasu, 2023). The Sustainable Development Goal (SDG) 3 on excellent health, SDG 4 on good education, SDG 5 on gender equality, and SDG 6 on the need for safe water and sanitation can all be hampered by menstruation if it is not properly managed (Mansoorianfar et al., 2022; Munro et al., 2021; Sang et al., 2021; Thurairasu, 2023).

The demand for higher education has increased globally due to Millennium Development Goals (MDG) 08 and SDG 04's calls for equal and fair access to education for everyone, as well

as the 1.5 points. This has increased the enrollment of female students in HEIs, including Kyambogo University (UNESCO, 2015). The number of female students enrolled at Kyambogo University increased from 700 in 2003 to 11,529 in 2019 (Factbook, 2019). The water and sanitation facilities currently in place for menstruation management may have been strained by the rise above. However, the amount of water and sanitary facilities that female students in HEIs have access to for managing their periods has not been examined in the research that is currently accessible (Kebirungi, Kabonesa, Kimwaga, et al., 2015; Schmitt et al., 2017; Sommer, 2010). Furthermore, the research stated above does not disclose the degree to which HEIs spend for and plan for water and sanitation facilities for managing menstruation. This indicates that there is still no documentation in HEIs regarding the availability of water and sanitary facilities for menstrual management. For some menstrual women, this poses a serious issue and a barrier to their participation in social and educational activities (Muweesi et al., 2024). When sufficient water and sanitary facilities are available on campus for managing menstruation, female students can compete favorably with their male peers in terms of academic achievement.

2 | OBJECTIVE OF THE STUDY

1. Assess female students' perception of access and utilization of water and sanitation facilities for menstruation management in HEIs.

2.1 | Research questions

1. How do female students perceive the accessibility and utilization of the current status of water and sanitation facilities for menstruation management?

2.2 | Conceptual framework

The establishment of sanitation and water amenities for menstruation management is an important notion in this study that was expected to minimize the social stigma (discrimination) women receive from the public due to menstruation stains. In this study, the planning and budgeting process was expected to cater for water and sanitation facilities for menstruation management and include females in its activities. Planning and budgeting for adequate water and sanitation facilities for menstruation management were expected to ensure accessibility, availability, acceptability, and utilization of these provisions by female students to use for addressing menstruation stains. In this context, planning and budgeting were the explanatory variables (construct) that determine the quality of the response variables (constructs). These included the status of water and sanitation facilities, access, availability, acceptability, and utility of water and sanitation facilities for menstruation management.

Figure 1 shows the aforementioned conceptual framework of the study.

Figure 1 indicates that integrating sanitation and water services for menstruation management in the budgeting and planning progression determines the status of their provisioning and in turn their availability, accessibility, and utility.

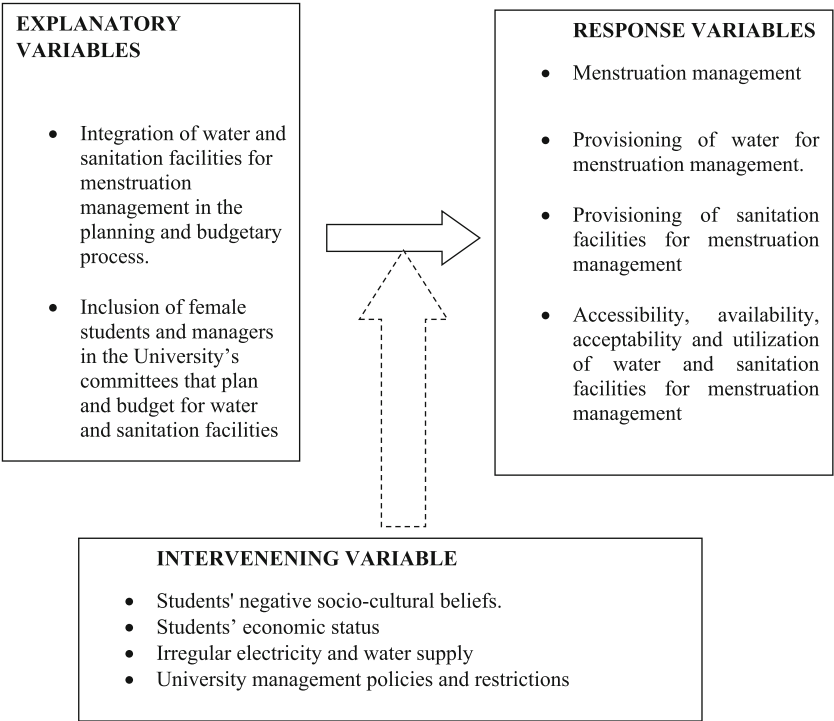


FIGURE 1 A diagram of the conceptual framework. *Source:* Author's creation 2021

According to Sommer et al. (2020), menstruation management refers to the behavior's practices, processes, and resources that individuals utilize to address menstrual bleeding. It includes the use of various materials and products to absorb or collect menstrual blood, as well as the adoption of hygiene practices, such as washing the genital area and changing menstrual products regularly to prevent infections. In the context of this definition, menstrual management encompasses both the physical management of menstrual bleeding and the hygienic practices associated with it. It emphasizes the importance of addressing the practical aspects of menstruation management, such as the availability accessibility and acceptability of appropriate menstrual water and sanitation facilities for menstrual hygiene practices (Nassozi et al., 2024). These facilities include disposable materials, mirrors, soap, changing rooms, and flat irons in the toilet facilities of the learning building at the university. These facilities can only be provided adequately in HEIs when the planning and budgeting processes affirmatively cater for them.

Water and sanitation facilities influence the menstruation management by female students at the university. Failure to provide, maintain, and access water and sanitation facilities in toilet facilities at the university by female students results in absenteeism, spread of urinal infections, and trauma. This means that accessibility, availability, acceptability, and utilization of water and sanitation facilities enhance menstruation management (Nassozi et al., 2024). This enables female students compared to their male student counterparts to also accomplish their academic ladder favorably. When these amenities are affirmatively integrated into the planning and budgeting processes of HEIs, they enhance the menstruation hygiene of female students.



Generally, female students prefer water and sanitation facilities for menstruation management that ensure privacy and dignity (Kebirungi, Kabonesa, Kimwaga, et al., 2015). However, the diversity of students induces variations in their preferences for water and sanitation facilities for menstruation management. These preferences vary with the socio-economic and cultural backgrounds of students (Kebirungi, Kabonesa, Luboobi, et al., 2015). This study was also cognizant of the other factors that determine the status of access, availability, acceptability, and utilization of water and sanitation facilities for menstruation management. These include students' low income, irregular water supply by National Water and Sewage Cooperation, and irregular electricity supply.

3 | LITERATURE REVIEW

Silence about menstruation by females in education settings limits the provisioning of water and sanitation facilities for menstruation management in educational settings (Brown et al., 2023; Daniel et al., 2023; UNESCO, 2015; Castañeda et al., 1996). UNESCO (2015) stresses that silence about menstruation by females in education settings is cultural since it is taken as a shameful subject that needs to be hidden because it might cause misunderstandings. In India and elsewhere in the world, these sociocultural perceptions play a role in the choice for the use of sanitation facilities in schools by female students during menstruation (Mudi et al., 2023). Among the Gujjar tribe in India, soiled clothes could only be washed in secret and then buried or reused without being seen by any person other than the owner. In northeastern Niger, women and girls were observed washing their used rags only at night because they thought it is shameful and dangerous to associate with menses (Iornumbe et al., 2023). Similarly, in Kenya, Ghana, and Tanzania girls and females have the same perception towards menstruation, which makes it hard for school girls to manage their menstruation at school (Kasiva, 2023; Ngonyani & Kamando, 2023). In rural Mexico, menstruation flow was also seen as dirty and shameful, and issues concerning menstruation had to be hidden away from men in the community (Castañeda et al., 1996).

Girls' fear of dropping used sanitary pads in disposable bins, because they could be bewitched, limiting their utilization of available sanitation facilities for menstruation management in educational settings (Dar et al., 2023; Melaku et al., 2023; Umeora & Egwuatu, 2008). The belief that disposal of menstrual waste was attached to witchcraft in Nigeria and Ethiopia, disposal of menstrual waste was attached to witchcraft where females in Higher Education Institutions of learning are scared to dispose of their used rags since they could be used to bewitch them (Idoko et al., 2023; Mulugeta Demmu et al., 2023; Umeora & Egwuatu, 2008). Also, in Uganda, school girls at all levels fear to drop their used rags in disposable bins because they could be bewitched. Therefore, most of them prefer to carry them home from school.

The distant location of the sanitation facilities makes them inaccessible for menstruation management (Brown et al., 2023; UNESCO, 2015; Kebirungi, Kabonesa, Kimwaga, et al., 2015; Sommer, 2010; WHO, 2009). In Kenya, latrines are located far from classrooms in higher institutions of learning. Most girls find it hard to use such sanitation facilities because they are inaccessible, especially during menstruation; therefore, they decide to stay home (UNESCO, 2015). In addition, girls living on campus suffer from the challenge of the distant location of sanitation facilities in northern Uganda (WHO, 2009). These facilities were very few and far away from resident tents where they were staying making them inaccessible for girls to use due to fear of being captured especially at night. Still, in Mozambique, sanitation facilities in primary schools

were located very far away from classrooms and very few where girls had to line up to use the toilets (Sommer, 2010). This condition made many school-going girls drop out of school, especially during menstruation (Charles & Khan, 2022; Nassozzi et al., 2024). In some school settings in Uganda, sanitation facilities are located near teaching rooms where some female students fear using them during menstruation because to them, it requires total privacy (Kebirungi, Kabonesa, Kimwaga, et al., 2015).

Studies from two East African Universities of Makerere and De res-Salaam studied by Kebirungi, Kabonesa, Luboobi, et al. (2015) and the University of Bonn in Germany do not apply to Kyambogo University because of the differences in their settings. Kyambogo is a young university of only 17 years, while the universities of Makerere, Der es Salaam, and Bonn are all over 50 years old. The student population, infrastructure, social amenities, and government funding in these public universities are significantly different.

4 | RESEARCH METHODOLOGY

A descriptive research approach was embraced; in this study, it was exploratory, and it entirely adopted a qualitative approach gathering responses from the participating respondents using semi-structured interviews, focus group discussions (FGDs) and observation from course coordinators from six faculties, students guild leadership, and selected university managers who were purposively selected and regarded to be more knowledgeable with university affairs as far as learners social welfare was concerned as highlighted in Table 1. Observation, semi-structured interviews and FGD were used in this study. Observations enable researchers to collect data in its context through viewing (Creswell, 2014). An observation checklist was used to collect data for establishing the real situation of the status of water and sanitation facilities at Kyambogo University without bias. Semi-structured interviews with the key informants (university managers and guild officials) were employed to obtain accurate, more reliable, and first-hand information. Likewise, FGDs with female student course coordinators were embraced.

TABLE 1 Summary of participants of the study

Participant category	Females	Males	Sampling technique
Student course coordinators	42	00	Purposive
Student guild officials	05	00	Purposive
University managers	02	03	Purposive
Total	49	03	

TABLE 2 Distribution of the study participants by categories and sex

Category	Nos	%	Males	%	Female	%
Student course coordinators	42	80.8	00	00	42	80.8
Guild officials	05	9.6	00	00	05	9.6
University managers	05	9.6	03	5.8	02	3.8
Total	52	100	03	5.8	49	94.2

Source: Researcher's design.

5 | DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

5.1 | Participants' demographic information

Results from Table 2 indicated that the sample was obtained mainly from respondents who were female (80.8%) with no male respondents. This was mainly attributed to the fact that sanitation and water facilities mainly affect females who are prone to direct end effects, which made the validity of the results more strengthened with first-hand female experiences. This is also clearly indicated by the overall respondents totals where 94.2% were female compared to 5.8% male counterparts who were mainly attained from the university managers. These findings therefore confirm that the data for the study were collected from both male and female university managers. This made it possible to triangulate the male and female opinions about the topic of study, and this strengthened the validity of the findings. Male university managers got to know the challenges female students go through during menstruation at the university through the reports they obtain from lower cadre administrators and also while interacting with female students' guild leaders. Therefore, their knowledge about the topic of study under investigation on the side of the male was less experiential compared to their female counterparts.

5.2 | Female students' perception of access to utilization of water and sanitation facilities for menstrual management in HEIs

This paper sought to establish female students' views towards the access and utilization of water and sanitation facilities for menstruation management in HEIs. The source of data for this objective was information gathered by the researcher from the female students' course coordinators, faculty Guild Representatives Councils (GRCs), and guild ministers. Their views were sought concerning the availability, acceptability, and accessibility of water and sanitation facilities for menstruation management.

5.2.1 | An attitude of indifference

According to female students in FGD 2 of Faculty A, female students at Kyambogo University view the topic of menstruation as a secret affair due to the influence of their different cultural backgrounds. For some female students, the topic is shameful and hidden. They said some female students regarded menstruation as dirty; therefore, discussing it could make the male students discriminate against them. To some female students, the issues of water and sanitation facilities for menstruation management are not important and do not need to be discussed in public. According to such students, every female student can handle and find a way to stay and finish their studies. In FGD 4, a female student commented and said:

I have been menstruating since primary; you cannot tell me that I can fail to deal with it at the university level. For sure let's discuss more appealing issues, menstruation, we can and we shall leave with it.

(FGD 4: a female student: Faculty C, November 29, 2020)

The perspective revealed in the above excerpt indicates that some female students disregard the study's concern of seeking to establish if the water and sanitation facilities at the university are acceptable, available, and accessible for menstruation management. According to the student in FGD 4, female students can manage to handle themselves during menstruation regardless of the nature of the university's environment, since they have been menstruating from the primary level.

5.2.2 | Irregularity of water supply makes facilities inaccessible, unusable, and unacceptable

It is revealed in this study that tapped water is available in all the corners of Kyambogo University, which is used to wash hands, freshen up, and for cleaning up. However, the water in the toilet rooms is on and off. There is no permanent flow of water in the toilets. Students find it hard to wash up because they are not certain that water will be available in the toilet rooms. A female student from FGD 4 commented and said:

During menstruation I can be stressed, you know sometimes I feel like my head is spinning around and I only feel better if I pour water in my head but ooh you can just get to the toilet only to find no water. This is worsened by cramps; you know I just reached a point whereby I cannot stay at the university. Sometimes if you make a mistake and use the toilet before checking for water you can imagine how you can look! You know some people even think we do not know how to use the toilets because sometimes you can leave it not flushed simply because there is no water.

(FGD 4: A female student: Faculty C; December 2, 2020)

The information in the above quotation indicates that the irregular presence of water in the toilet rooms makes some female students leave the university premises prematurely, thus missing some lectures. This scenario also explains the presence of soiled toilet facilities in the females' washrooms. The on-and-off-water situation causes a lot of stress to female students during menstruation, and some decide to stay in their hostels and miss lecturers not until they are done with menstruation.

In FGD # 03, a female student commented:

For us who have a heavy flow, you cannot imagine what we go through. I need to change a pad at least every three hours so I have to check up constantly but sometimes I have to get to the toilet and find no water which means I have to keep on moving to different buildings to find a toilet with water but when I leave the lecture still goes on, that means I still have to come back and ask for what has been covered when am away which is stressing.

(FGD 3: A female student: School E; December 2, 2020)

The above excerpt indicates that the irregular presence of water in the toilet facilities at the university also contributes to stress and interruption in the learning process of some female students. The information in this excerpt also indicates that clean toilet facilities for sanitation and menstruation management are not easily accessible and those without water are not acceptable for menstruation management. The study revealed that some buildings have water, but the

pipes are too old and broken, and they keep leaking water onto the toilet floors so by the time students need to use it, it is already wasted. A female student in FGD 02 affirmed this scenario when she said:

Sometimes you enter the toilet and have nowhere to stand when it is full of water and you just decide to go away with your issues.

(FGD 02: A female student: Faculty A; November 28, 2020)

5.2.3 | Toilet structures are unacceptable and un-useable for students with special needs

The flashing systems of the toilet facilities for students with disabilities are the same as the toilet facilities of other students. Key informant GRC student with disability Interviewee 01 explained that the handles for flashing these toilets are placed up, so they cannot easily be reached by students with disabilities. This makes them use toilets with the help of their friends. This takes up their privacy, especially during menstruation. According to all the two female GRC student interviewees with disabilities, it is shameful to use the toilet in the presence of another person, especially during menstruation. In this context, the toilet facilities are not acceptable for menstruation management by students with disabilities.

5.2.4 | The high student toilet/latrine ratio makes them inaccessible

The study also revealed that sanitation facilities like toilets are available at Kyambogo University. It was observed that each floor in the faculty buildings has a toilet room for both male and female students. However, due to the large number of students at Kyambogo University, the toilet facilities are not enough to accommodate all the students. Students were seen in queues for toilets, especially during the examination period as explained by a female guild minister key informant 2. The researcher also observed that some toilets were closed in School E, yet the school has the largest number of female students in the university. Female students from School E have to use toilets from Faculty C, which are also always having too many students and are a bit far from their lecture rooms. According to the female student FGD 03 respondents, this is a form of toilet inaccessibility, especially during menstruation when the need for toilets that are near lecture rooms is paramount.

5.2.5 | The unhygienic conditions of the toilets/latrines make them inaccessible and un-useable

In some faculties like Faculty C and School E, toilets are cleaned twice a week (Female students' FGDs 06 and 03, Faculties C and E, 28th/November/2020s). FGD 4 interviewees revealed that Faculty D has pit latrines that are worn out and are almost full. One of the interviewees explained that female students find difficulty in using these pit latrines because "they smell and there are maggots on their floors" (Female student FGD 4; Faculty D). Guild minister key informant 2 observed that most of the students perceive the use of these latrines as taking a high risk to their health and life. This could also be a threat to one's life in case the latrine breaks and

one falls into it during the process of using it. This explanation was confirmed by a female faculty course coordinator from Faculty D who said:

In our faculty we use pit latrines since the flush toilets are only two and yet our faculty has most of its population as females, therefore you may find that lining up for toilets is inevitable. And to make matters worse these latrines are seriously worn out. I cannot use them I fear dying.

(A female student: FGD 4: Faculty D, November 29, 2020)

The above excerpt reveals that at Faculty D, the number of available flush toilets is inadequate while the status of the available pit latrines is unacceptable for menstruation management.

According to the FGDs findings, unclean students' toilet facilities are a common phenomenon at Kyambogo University. In this context, the available toilets in the teaching facilities are unacceptable for menstruation management because they are perpetually dirty. In the FGDs, female students were quick to observe that the toilet facilities in the new lecture buildings are regularly cleaned but these buildings are few and are not commonly used by students for lectures since they use them twice a week. This finding indicates that female students' access to the available clean toilets in the new lecture blocks is limited. In their FGDs, female students revealed that they avoid using dirty toilet facilities by moving around the university looking for clean toilet facilities. In addition to the above, female students in FGD 01 in Faculty B claimed that looking for clean toilets is a hard thing to do for female students who are in menstruation since it becomes so uncomfortable for them to move around the campus.

A female student from Faculty A also complained that she always menstruates because of merely looking at blood from the pads of other students in unsealed disposable bins and such scenes make them uncomfortable to even use the toilets at the university. Some female students perceive this situation as being unhealthy and so decide to stay in their hostels and at home during menstruation (Source). In this context, the toilet facilities are unacceptable to such students.

5.2.6 | The toilets' lack of privacy makes them inaccessible and un-useable

Some female students fear using toilet facilities at the university due to a lack of privacy. Observation findings revealed that 13 toilet doors in the faculties of A–B are broken; 6 toilets have no doors at all, and 20 toilets have doors but with no locks. In FGD 02 with female students from Faculty A, one student said:

Sometimes you have no option other than holding the door of the toilet and at the same time easing yourself, in the process, you end up staining your underwear with blood and it is also very uncomfortable to imagine the panic. For sure, I just go home if I feel like changing my pad or going for a short call.

(FDG 2: A female student: Faculty A November 16, 2020)

The above excerpt also revealed that unlockable toilet doors make these sanitation facilities unacceptable for menstruation management. Female students perceive such facilities as an unbearable problem and therefore decide to ignore using them, especially during menstruation.

With the above, it is evident that female students perceive water and sanitation facilities for menstruation management as available. However, the water is sometimes inaccessible due to its on-and-off status, and the toilet facilities are largely inaccessible and unacceptable due to their dirty state, unlockable doors, and the old and risky state of the pit latrines.

6 | DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

6.1 | Discussion of the study findings

To female students, the provisioning of water and sanitation facilities for menstruation management is perceived as a minor need as revealed by the study. This collaborates with a study by Castañeda et al. (1996), who found that girls in rural Mexico believed that issues concerning menstruation had to be hidden away from the community because they perceived menstruation flow as dirty and shameful. The researcher attributes the mindset trivializing this issue to the student's lack of sensitization and awareness that water and sanitation facilities for menstruation management are basic needs of life that they need to access at the university as pointed out by the UN report (2010). Students' unwillingness to discuss menstruation issues in public is in line with the UNESCO (2015), which explains that silence about menstruation by females in education settings is cultural since it is taken as a shameful subject that needs to be hidden because it might cause misunderstandings. Because of this mindset, water and sanitation facilities are not publicly demanded by students at the university. This may partly explain the lack of prioritization of provisioning and maintenance of water and sanitation facilities for menstruation management at the university (Charles et al., 2024).

The on-and-off-water situation in toilet facilities at the university as discovered by the study has made female students perceive water and sanitation facilities as unacceptable by the students because it causes a lot of stress to female students during menstruation. Since they are not sure if they will find water in the toilets or not, some female students decide to stay in their hostels and miss lectures until they are done with menstruation. The United Nations General Assembly declares access to safe water and sanitation as a standalone universal human right. SDG 6 also states that access to safely managed water and sanitation should be universally available because it is a global priority, which in the context of this study is a pre-requisite for the hygienic management of the menstruation process by female students.

The toilet facilities at the university are perceived as unacceptable for menstruation management by students with disabilities walking and seeing because the handles for flushing them are too high for these students. This makes them use toilets with the help of their friends, thus making it shameful and uncomfortable for them to use the toilet, especially during menstruation. This is because no female likes to clean up during menstruation in the presence of the other (Joanittah et al., 2024). These students, like those in rural Mexico, perceive menstruation flow as dirty and shameful; therefore, it has to be hidden away from the public eye (Castañeda et al., 1996). In this context; female students with disabilities in Kyambogo are traumatized when they are in menstruation because of the unacceptable lack of privacy caused by the high toilet handles that necessitate them to have another able person flash the toilet for them (Muweesi et al., 2024).

Female students also perceived the available toilet and latrine facilities at the university as inaccessible and unacceptable due to their dirty state, inadequate numbers, dilapidated status,

and lack of privacy. Every female desires to use a clean toilet and latrine, especially during menstruation. This assertion is also supported by Bartram and Cairncross (2010), who explain that unacceptable toilet facilities, dustbins, incinerators, and water affects human beings and can cause several complications and diseases like diarrhea, urinary tract infections, worms' infestation, lymphatic filariasis, bowel complications, and malnutrition. Molla's study in Ethiopia (2014) also confirmed that the sorry state of sanitation facilities in secondary schools caused psychological trauma to female students and made girls worry when they started their menstruation during school hours. Therefore, to avoid such complications, some female students in this study chose to stay at home or in their hostels during menstruation (Charles et al., 2023).

Furthermore, the unsealed disposable bins in the toilet facilities at Kyambogo University were also perceived as unacceptable by female students. The uncovered disposable bins make female students uncomfortable to dump their used pads inside them especially when someone else is near the bin. Also, in a study conducted in Syria, Crichton et al. (2013) found that girls and women resist the use of waste bins placed in latrines because of the strong cultural belief that it is taboo for others to see their used pads in the bins. More so these bins are placed out the toilet rooms with no privacy, yet menstruation is something that requires maximum privacy. Similarly, Kebirungi, Kabonesa, Kimwaga, et al., 2015, too, found that at Makerere University in Uganda and Dar Es Salam University in Tanzania, placing sanitary bins outside the toilet, close to the hand, washbasins made female students uncomfortable carrying used sanitary towels from the toilets to open areas. Still, some toilet facilities do not have disposable bins; therefore, some female students decide to move with polythene bags or dump the pads inside the toilets, which causes blockage. Tegegne and Sisay (2014) also found that in Kenya, girls in primary schools carried soiled absorbents back home due to a lack of adequate privacy and sanitary facilities. In this study, some female students who dislike carrying something to keep their used pads chose to stay at home or in their hostels until they were done with menstruation. This scenario thus causes irregularity of female students in lectures at the university (Rose et al., 2022).

Furthermore, the study also discovered that incinerators in Kyambogo University are perceived as inaccessible by female students. All incinerators are located far away from lecture buildings. They are located in the halls of residence, yet most female students are non-residents. This is critical because some female students fear disposing of their used pads in disposable bins in the toilet facilities due to their cultural background that prohibits them from doing so. Such students need to personally dispose of their used pads in the incinerators. This finding is similar to Umeora and Egwuatu (2008), who also found that, in Nigeria, females in higher education institutions of learning were scared to dispose of their used rags in the toilet waste bins because they could be used to bewitch them. In this study, such students miss lectures during menstruation because of the fear of dropping off their used pads in the disposable bins and the burden of moving for a long distance to the halls of residences where incinerators are. More so, most of the female students are not even aware of the existence of these incinerators (Balyaino et al., 2023). To make the situation worse, all the incinerators are broken, and there is only one functional incinerator in the whole university. This incinerator cannot be accessed by every female in Kyambogo University because some faculties are located far away from this hall of residence.

7 | CONCLUSION

A significant number of students did not have adequate access to the water and sanitation facilities for menstruation management. They also lack adequate menstrual hygiene management

education and their rights to sanitation and water facilities for menstruation management in terms of the menstrual cycle, the importance of washing body parts, and the issue of stigma during the menstruation period. Therefore, the university needed to take concrete steps to improve the situation, including increasing the number of water and sanitation facilities and providing more menstrual hygiene management education. It is a critical issue that if not tackled, the female students lose their privacy and dignity during the menstruation period. The study reported that many of them resort to the use of unhygienic and unsafe alternatives, such as the use of unwashed clothes. This can lead to more infections and other health problems. The study revealed that there is a high increase in absenteeism among female students, meaning that they tend to isolate themselves due to the absence of the necessary supplies or facilities to manage their periods.

The study sought that female students understand the availability of sanitation and water facilities for menstruation management. However, they find it inaccessible and unacceptable in many ways. In such a scenario, many female students are left without any option but only to remain in their hostels or homes till their menstruation cycle ends. The study findings indicate that some of the female students are against discussing water and sanitation facilities for menstruation management in public; they rather perceive it as secrecy at the university. Additionally, they revealed that they are not aware of their rights to sanitation and water facilities at the university. As a result, the university has been discouraged from making the female students' need for water and sanitation facilities for menstruation management a priority.

8 | RECOMMENDATIONS

The study recommended that the Directorate of Gender at the University should review and work very closely with the Department of Estates and Works to improve the maintenance and provision of water and sanitation facilities for menstruation management. Additionally, it will improve the adequacy and sufficiency, and all this should be backed up by continuous supervision for purposes of improved students' health to enable them to participate in all the university academic programs. To the policy makers, the female students together with the Estates Department should be involved in the university process of planning and budgeting programs. This will ease the inclusion of water and sanitation facilities for menstruation management during such times. On the issue of acceptability, accessibility, and utilization of the water and sanitation facilities for menstruation management, female students should be sensitized about their rights while at higher institutions of learning.

CONFLICT OF INTEREST STATEMENT

There is no conflict of interest.

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