



RESEARCH ARTICLE

ROLE OF MENSTRUATION HYGIENE MANAGEMENT IN PROMOTING GIRLS' EDUCATION AND ACHIEVEMENT OF GENDER EQUALITY- ASSESSING PROVISION OF SANITARY PADS AND MENSTRUATION MANAGEMENT FACILITIES IN PUBLIC SECONDARY SCHOOLS: A CASE STUDY OF BUMBULI DISTRICT COUNCIL, TANGA REGION TANZANIA

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ARTICLE INFO

Article History:

Received 27th September, 2025
Received in revised form
28th October, 2025
Accepted 20th November, 2025
Published online 30th December, 2025

KeyWords:

Menstruation Hygiene Management,
Girls' Education, Gender Equality in
Education.

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ABSTRACT

Gender equality in education has been an issue of interest in the development agendas of the whereas each country was required to integrate gender issues into their development plans and strategies. Despite efforts made to achieve gender equality in education, few countries worldwide have attained full gender parity in secondary education. Tanzania like other SSA countries has worked hard to achieve gender equality in respect to education as given by EFA MDGs and currently SDGs. However, the problem of girls dropping out early from school and poor academic performance continues to be prevalent. Poor Menstruation Hygienic Management (MHM) pointed out as one among factors affecting progress toward development of girls' education. This study therefore, assessed practice of MHM in government secondary schools and its impact on girls' education. The study was guided by phenomenological research design so as gain understanding about MHM practices and the related effects on education of girls. Stratified sampling technique was used to obtain a sample size of 21 participants from which information related to study problem was collected. Data collection methods included interview and focus group discussion while data analysis involved thematic analysis. Study findings revealed that there is change in attitude about MHM whereas society in the study area perceives it positively. The study further noted that there is poor practice of MHM in the study area whereas most of schools do not have MHM disposal facilities but also do not provide enough sanitary pads to girls. Nevertheless, school girls are not provided with hygienic pads at home because of poor financial condition of their parents. Additionally, the study revealed that poor practice of MHM has negatively impact girls' education and progress toward achievement of full gender parity in secondary education.

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Citation: **Dr. Rahma Mohamed Msoffe**. 2025. "Role of menstruation hygiene management in promoting girls' Education and Achievement of gender equality- assessing provision of sanitary pads and menstruation management facilities in public secondary schools: a case study of Bumbuli district council, Tanga region Tanzania." *International Journal of Development Research*, 15, (12), xxxx-xxxx.

INTRODUCTION

Sustainable Development Goals, goal number 4 specifically require each country in the world to ensure inclusive and equitable quality education by 2030. Target two of this goal in particular, call for all countries in the world to eliminate gender disparities in education and ensure that girls and boys complete primary and secondary education and attain quality education by 2030. Although, menstruation hygiene management is not directly outlined in targets for this goal, it is highly considered as a central component in the achievement of gender equality in education before the given deadline 2030. Education studies in developing countries indicated that enhanced menstrual management has improved girls' school attendance, increased concentration in classroom learning and improved academic performance (Ngeno, 2019; Sampa *et al*, 2021; Akanzum and Pienaaah, 2023). However problem of poor menstruation hygiene management still persist in most of these countries whereas adolescent school girls reported to abscond from school because of lack of basic menstruation hygienic facilities at school and home (Arid and Yehya, (2023). Education statistics in Bangladesh for example show that about 41% of school girls miss school monthly

due to lack of access to sanitary pads (Alam *et al*, 2017). Majority of school girls in rural Ethiopia dropped out from school because of embracement related to lack of use of sanitary pads during their menstruation circle (Tegegne and Sisay, 2014). Study by Chinyama *et al*, (2019) in Zambia revealed that government in that country does not provide sanitary pads to female students because of limited school budget. Similarly, trends in MHM in East African countries show that there is poor supply and use of sanitary pads among school girls. Study in Kenya show that about 83% of girls in public schools do not use sanitary pads because of limited education budget and financial constraints among many parents (Ombogo *et al*, 2023). According to Unicef (2021) about 42% of school girls in Tanzania lack menstrual material to manage their menstruation period. Generally, these findings suggest that MHM remains a challenge for development of girls' education and achievement of gender equality in education. This study therefore set itself in assessing situation of MHM in the selected study area.

Objective of the Study

- Assessing perceptions about Menstrual Hygiene Management in the study area.

- Assessing availability of menstrual materials and facilities in public secondary schools in Bumbuli District Council
- Examining effects of menstrual hygiene management on girls' education and achievement of gender equality in education.

Research Questions:

- How do you and your family perceive menstruation?
- Does this school provides enough sanitary pads and supply other menstruation management materials?
- How does menstruation management affect girls' education?

REVIEW OF RELATED LITERATURE

Studies across the world admitted that Menstrual Hygiene Management (MHM) plays a crucial role in the empowerment of women/ girls and it serves as a fundamental necessity for personal dignity and the overall development of women/ girls. (Unicef, 2021; Eades-Baird & Nyaronga, 2024). Study by Ahmed *et al*, (2021) show that there is significant relationship between menstrual management and girls' education development whereas likelihood of good school performance significantly increases with good MHM status. However, there is prevalence of poor MHM in low income countries the situation that consequently hampers progress toward full achievement of gender equality in basic education before SDGs deadline 2030. Report by Unicef, (2021) indicated that MHM continues to receive low priority in low-income countries because of limited resources and prevailing socio cultural factors, beliefs, myths and taboos. Similarly, study Method *et al*, (2024) revealed the same that poor menstrual hygiene practices are affected by cultural norms, family limited resources and personal preferences. Women and Girls from poor countries face challenges in accessing menstrual products and proper facilities (Sure *et al*, 2023). Study by Arid and Yehya, (2023) show that most women in developing countries who employed under daily payment basis reported missing at work due to lack of access to menstruation materials as a result ended up in low monthly earning.

Prevalence of unmet needs for menstrual hygiene management is high in SSA compared to other developing countries Burkina Faso being the country with highest prevalence (Rossouw and Ross, 2021; Akoth *et al*, 2024). Study in Mali show that majority of school girls in Bamako used reusable cotton pads during their menstruation period because this menstrual product is cheaper than diapers and sanitary towels (Saydou *et al*, 2020). Residing from poverty prone areas girls in rural schools are more affected by problem of poor MHM practice because they do not have access to hygienic pads but also there is no menstrual management materials including clean water, soap, disposal facilities and private changing rooms in their respective schools (Hennegan *et al*, 2016; Alam *et al*, 2017; Chinyama *et al*, 2019; Magayane and Meremo, 2021).

Limitations placed on issues related to MHM also contributed by traditional practices and beliefs about menstruation that differ across tribes and countries. Traditional norm and taboos in most of developing countries prohibit women and girls from discussing issues related to menstruation with men (Sure *et al*, 2023). Traditionally menstruation considered as dirty, shameful and sinful practice that requires menstruating girls to be isolated and treated differently from other family members and the entire society. In Indonesia for example menstruating women and girls are strictly prohibited to interact with their male peers, washing their hair, drinking cold drinks, throwing away fallen hair, cutting nails, bathing and going to rice fields/gardens (Davis *et al*, 2018). Traditional teaching provided to adolescent girls at the onset of their first menstruation encourages them to avoid gathering with boys during menstruation period as this would put them at risk of getting pregnant and drop out of school Chinyama *et al*, 2019). Additionally, lack of factual knowledge about menstruation reported to be one among factors influencing poor menstrual hygiene management among women/ girls. Menstruation and related hygiene management information is not appropriately or promptly communicated to girls before begin their menstrual cycle

thus they normally use unsanitary pads which are likely to persist throughout their lives (Afiaz and Biswas, 2021).

The use of improper sanitary pads pointed out as reason for girls' poor classroom participation because of fear of being dirty and teased by fellow students particularly boys ((Method *et al*, 2024). Also, menstruating girls are normally absconding from school because of fear of stain their uniform that consequently leads to embarrassment, teasing and laughter from other pupils especially boys. Health wise, menstruating girls felt restless, irritable, mood less, stressful and experience change in appetite due to changes in the levels of estrogen and progesterone (Sundari *et al*, 2022). Poor menstrual hygiene management was not only found to influence school absenteeism among school girls but also affect school time table, encourage poor concentration during classroom presentation and instill psychological problems including fear of staining and feeling discomfort while in classroom (Sivakami *et al*, 2015). Analysis from review of related literature therefore provided an insight on how to assess practices of MHM and related effects in the selected study area.

METHODOLOGY

Research Approach and Research Design: This is a qualitative study that employed phenomenological research design. This research design was opted for because the researcher wanted to explore different views of adolescent school girls regarding the practice of menstrual hygiene management and how the same impact their study. The study was carried out in Bumbuli District council whereas study sample was drawn from five government secondary schools to represent all public secondary schools in the study area.

Sampling Techniques and Sample Size: Random stratified sampling technique was used to obtain sample size for focus group discussion in which the researcher divided female students from selected secondary schools into four sub groups basing on the class levels. Thereafter the researcher was randomly picked up **04** students from each study strata making a total of 20 participants for focus group discussion. This study also involved **01** District Education Officer (DEO) secondary education section so that to provide insights about provision of menstrual material and overall practice of MHM in the study area. This study therefore was used a total sample size of 21 participants from which data related to study problem was collected.

Inclusion and Exclusion Criteria: Basing on investigated information and tools of data collection the researcher established inclusion and exclusion criteria that guided sampling procedure and selection of participants to be included in the study sample. The study used gender and age as inclusion criteria whereas girls who have undergo first menstruation cycle aged 10 to 14 were included in the study. Those who do not maintain these features were excluded from this study.

Data Collection and Analysis: This study employed focus group discussion and interview methods of data collection. Focus group discussion involved female students from selected secondary schools because this group is more knowledgeable about the study problem. Based on heterogeneity nature of participants in focus group discussion the study conducted **05** discussion sessions in which **04** participants were engaged in the discussion so as to get detailed account on the perception, practice of MHM and its effect on girls' education. The researcher also held interview with DEO (secondary education) in order to collect information related to provision of sanitary pads to female students and availability of menstruation management facilities and materials in the overall study area. This study used thematic analysis to analyze collected information from interview and focus group discussion. Specifically, the study used six phases of Braun & Clarke, (2006) in which the researcher listened and transcribed the recorded participants' information, coded data, created themes, defined the created themes and produced a final report of study findings.

Ethical Consideration: Research ethical issues were maintained by asking research permission from Tanga Regional Administrative Secretary and Bumbuli District Executive Director respectively to allow data collection in the selected schools. The researcher also was clearly explained the aim and importance of this study so as to obtain participants' consent and influence them to participate in the study. The researcher further ensured equal treatment and fairness among participants in focus group discussion sessions with respect to their class level and residential areas. Confidentiality of collected information was maintained in data analysis and presentation of study findings whereas names of participants were omitted and replaced by numbers and letters.

RESULTS AND DISCUSSION

Perceptions and Knowledge about Menstrual Hygiene Management: Education studies across different countries admitted that socio cultural and religious factors impede teenage school girls from getting important information concerning proper practice of MHM. Societies in Africa for example consider menstruation as dirty and shameful thing that the information regarding proper practices of MHM should be kept secret (Serafim, 2023). Traditionally menstruation period considered as impurity body mechanism so girls who are in menstrual circle required to abscond from school in those days to avoid contaminating fellow students (Masatu & Msoka, 2024). Study, findings by Alam *et al.*, (2017) in Bangladesh and Njee *et al.*, (2024) in Tanzania reported that most of school girls had no knowledge about menstruation before reaching menarche thus they are ill-equipped with skills related to MHM practices during their menstruation periods. Study by Ngilangwa *et al.*, (2025) in Tanzania specifically revealed that menstruation still remain as taboo subject that is rarely discussed in the community and publically as a result there is limited knowledge about MHM practices among majority of adolescent girls. Similarly Menstruation management analysis in schools in Tanzania shows that only 28% of school girls had adequate knowledge of MHM in both Tanzania Mainland and Zanzibar (Njee *et al.* 2021). Contrary to these studies, finding from this study noted that girls are well informed about menstruation and menstrual management prior their first menstruation cycle. Almost all participants in focus group discussion acknowledged that they have been taught about menstruation and accompanied body changes before their first menstrual cycle. Findings from focus group discussion informed. One participant in school A reported:

"I have been taught about menstruation and how to manage the discharged blood when I was in primary school whereas female teachers gathered and taught us on how to manage the discharged blood during menstruation. I was also learned about menstruation management through watching television" (Comment by Participant 2)

In addition finding from focus group discussion noted that NGOs are also participates in raising awareness about menstruation management. Participant in school C said:

"I have knowledge about menstruation management before my first menarche whereas my mother and sister taught me on how to wear pad and dispose the used pads. They equally insisted on general cleanness of my body during menstrual period. We also had given this knowledge by our science teacher who taught us about puberty and accompanied body changes including menstruation for girls. Sometimes, NGOs visit our school supplies us with sanitary pads and teach us on how to wear and dispose it" (Comment by Participant 4).

Result from this study further indicated there is change in attitudes about menstruation whereas girls, parents and other family members are nowadays consider menstruation as bless rather than sinful thing. One participant in school B explained:

"On my side, I perceive menstruation as good thing and I was so happy during my first menstrual cycle because I perceived it as

sign of maturity that signify that I can take up motherhood roles but at the right time and in proper way" (Comment by Participant 1).

Moreover, finding from focus group discussion indicated that recently there is positive change of perceptions about menstruation compared to the past days where menstruation was traditionally and spiritually considered as dirty and sin. One participant had this to say:

Result from this study further indicated that there is change in attitudes about menstruation whereas girls, parents and other family members are nowadays consider menstruation as bless rather than sinful thing. One participant in school B explained:

Another participant in the same school added:

"I positively perceive menstruation as something good because through it I can verify that biologically I'm normal girl. If you are not going through this monthly body routine then you are considered as abnormal woman/girl, something which is psychologically embracing. I have come to know such a case of girl who is psychologically stressed because she is not menstruating. Her parents are currently struggling to look for medication so that to make her undergo menstruation cycle" (Comment by Participant 3)

This finding therefore, suggests that there is positive change in perception about menstruation and menstruation management whereas traditional beliefs are fading away because of integrated science subjects in the basic education curriculum. Moreover, there is increase in advocacy and awareness about importance of MHM by NGOs and the media.

Availability of Menstrual Materials and Facilities in Public Secondary Schools: Menstruation Hygiene Management is increasingly recognized as viable approach for achieving Sustainable Development Goals gender equality specifically by 2030. Despite MHM being an important strategy toward achievement of gender equality in education, this basic school need for girls is highly ignored in developing countries because of limited resources and prevailing socio cultural factors. Study by Ahmed *et al.*, (2021) indicated that most of school-going adolescent girls in rural Bangladesh used pieces of reusable cloth during menstruation period. Statistic by Akoth *et al.*, (2024) in some of SSA countries show that there was prevalence of unmet need for MHM in the region that ranking from 74.8% (Burkina Faso), 69.9% (Ethiopia), 65.2% (Uganda), 57.8% (Niger), 53.5% (Kenya) and 34.2% (Ghana). Financial constraints among many parents in rural schools in Ghana compelled majority of school girls to use unsafe alternative menstrual materials like rags and tissue paper, coupled with cultural beliefs these girls are forced to abscond from schools during their menstruation cycle (Gbogbo *et al.*, 2025). Findings from this study noted the same that government do not provide sufficient sanitary towels to satisfy needs of all female students in government owned secondary schools. Interview with Bumbuli District Secondary Education Office noted that there was no specific allocation of sanitary towels in school capitation grant. School capitation grant do not consider sanitary towel as basic school needs to female students but rather regard it as an emergency item that can be covered under the first aid and medication allocation. DEO reported:

"There is no specific allocation of sanitary pads in school capitation. However, I always direct heads of schools to make sure that provision of sanitary pads is given first priority and covered from 10% allocated fund for first aids in the overall school capitation fund". (Interview with DEO).

Contrary to this finding, study by Ombogo *et al.*, (2023) in Kenya noted that majority of school girls from poor families provided sanitary pads by the government in partnership with Non-Governmental Organizations. Furthermore result from focus group discussion notified that most of girl students in study area use local pad as alternative to hygienic pads because their parents and school

do not provides them with sanitary pads. One participant in school D said:

“The school does not supply us with enough pads to satisfy our needs except we are given only one piece for emergency while in school but the following days you need to use your own means to cover yourself and go to school” (Comment by Participant 3).

Result from focus group discussion also revealed that poor financial condition among many parents prohibits them from giving this basic school needs to their daughter. Finding from school B justified:

“Our parents do not have money to buy us sanitary pads so we normally use locally made pads as alternative to hygienic pads and go to school.”(Comment by Participant 1)

Coupled with financial difficulty among many parents, participants in focus group discussion also pointed out other reason why some parents do not provide sanitary pads to their daughters. Result from focus group discussion in school D notified:

“The high price of sanitary pads makes most of our parents fail to buy us special pads and consider it as wastage of money. So, they insist on the use of locally made pads claiming that they were also used the same in their youth days.” (Comment by Participant 4)

Similarly study by Nabwera *et al*, (2021) noted that reusable cloths/towels were the commonest absorbent materials used by school girls in rural areas in Gambia due to persistent of poverty. The study also informed that the magnitude of problem of lack of sanitary pads is higher for girls who come from divorced parents compared to girls whose parents are in marriage. Result from interview with DEO justify:

“Most of the students in this area live with grandparents as a result of parents’ separation, thus their grandparents do not manage to give them some of basic needs including sanitary pads. So they decide to drop - out from school going to urban areas employed as housemaid or engage in petty trade to satisfy their needs” (Interview with DEO).

The study further investigated availability of other menstrual management facilities in the study areas whereas participants in focus group discussion were asked to briefly give the status on availability of menstruation management facilities in their respective schools. Majority of participants in the selected schools admitted that there is poor status of menstruation management facilities in their respective schools whereas in some cases there is no even a single facility for disposal of used sanitary pads. Participants in school B admitted that there was scarcity of menstruation disposal facilities in their respective school:

“Generally physical condition of toilets in our school is very poor and disappointing. Girls’ toilet is very dirty with no tap water and soap so we are always used to collects water from main school tank when going to the toilet” (Comment by Participant 1).

Finding from focus group discussion further noted that there were few cases of schools which connected with tap water but these taps are always dry out because of limited supply in the main government water reservoir tank. Participants in school C explained:

“In our case, school toilets are connected with tap water but often these tap do not have water, this situation is very challenging to us particularly during menstruation period” (Comment by Participant 4).

Additionally, results from discussion with girl students in the selected schools notified that most of public schools in the study area do not have special changing room where female students can obtain free pads and freely exchange their pads. Participants in school B reported:

“Our school do not have special toilet for girls where we can exchange wet pads but there is worn out dustbin in girls’ toilet

where we can put used pads. Moreover, there is no special disposal pit and no given routine for disposal of the collected wastes instead we wait until when the dustbin become full and find a means to carry it far away from the school particularly in the forest and dispose the used pads there” (Comment by Participant 3).

Another participant in the same school added:

“Frankly speaking the condition in girls’ toilet is very bad with such unpleasant smell coming out from rotten pads. This situation is real discouraging us from going to school in those days” (Comment by Participant 1).

Finding from this study concur with study by Chinyama *et al*, (2019) in Zambia who noted the same that public schools in that country do not have MHM facilities including tap water, soap for cleaning hands and other menstruation management facilities.

EFFECTS OF POOR MHM ON GIRLS’ EDUCATION

Menstruation hygiene management is directly linked with development of girls’ education as improved practices of menstrual management in school tend to promote school attendance, classroom learning and enhance academic performance among girls. Analysis on MHM practices in Ethiopia show that there was an increase in rate of school attendance, improved study time and academic performance among school girls because of improved MHM practices through school based intervention projects (Andargie and Tunola, 2025). This is contrary to finding from this study that noted poor condition of MHM in study area prohibits progress towards development of girls’ education. Majority of participants in focus group discussion (85%) admitted that lack of sanitary towels affected their schooling. Participants in school E, B and D respectively commented:

“If you are using local pad and the discharged blood passes through your skirt, boys in the class will embarrass, mock and intimidate you, to avoid this you decided not to go to school when you are in menstruation period.” (Comment by Participant 3).

“Not only that but also walking long distances to and from school while wearing a local pad may result into bruises which can make you uncomfortable and hence fail to attend to school in those days and as a result you miss several classroom sessions” (Comment by Participant 2)

Health wise poor menstruation management reported to have complex effects on girls’ body that multiply itself into their study. Participants of focus group discussion in school B gave remarks.

One participant explained:

“Local pads do not have capacity to absorb the discharged blood and make you comfortable. So staying many hours with this soaked and wet piece of wrap may lead into bacterial and fungal infection” (Comment by participant 1).

This finding concur with study by Saydou *et al*, (2020) that indicated that about 10% of school girls in rural areas in Bangladesh abscond from school during menstruation period because of use of unhygienic pads that and the related complications. The same was observed in SSA whereas most of school girls in rural areas missing the school and face difficulty in concentrating in classroom discussion because of lack of use of hygienic sanitary pads (Hennegan *et al*, (2016; Mantesebo, 2017). Generally, findings from this study suggest that lack/ inadequate of hygienic menstrual materials and facilities have consequently affect girls’ school attendance, classroom learning and academic performance. Unless this problem being sorted out development of girls’ education will continue to remain as an elusive and hence unpromising future of achievement of full gender equality in education as required by SDGs.

Conclusion and Recommendation

Result from this study show that menstrual hygiene management in most of government owned schools faces many challenges, reflecting

unpromising progress in the achievement of full gender equality in education before given SDGs deadline 2030. Findings from this study therefore lead to a conclusion that for long time now planners and policy makers have been overlooked and not regarding MHM as a basic need for women/girls' dignity but also tool for empowerment. This negligence of MHM has finally become a threat towards achievement of national and international agendas related to women/girls development. This study thus, call upon policy makers and planners to consider MHM as special basic need for school girls that need to be prioritized in all education development plans and strategies. Similarly I argue government in partnership with NGOs to have action plan and put forward strategies to ensure availability of menstruation management materials and facilities to satisfy needs of girls across all government schools in the country before given SDGs deadline 2030.

REFERENCES

- Afiaz, A. and Biswas, R. K. 2021. Awareness on menstrual hygiene management in Bangladesh and the possibilities of media interventions: using a nationwide cross-sectional survey. *BMJ open*, 11(4), e042134.
- Ahmed, M. S., Yunus, F. M., Hossain, M. B., Sarker, K. K. and Khan, S. 2021. Association between menstrual hygiene management and school performance among the school-going girls in rural Bangladesh. *Adolescents*, 1(3), 335-347.
- Akanzum, J. and Pienaaah, C. K. 2023. Review of the effects of adequate sanitary facilities on the participation and performance of the school girl child in Ghana. *ISABB Journal of Health and Environmental Sciences*, 8(1), 1-14.
- Akoth, C., Wambiya, E. O., Kibe, P. M., Mbuthia, G. W., Ng'ang'a, L., Otieno, P. and Oguta, J. O. 2024. Prevalence and factors associated with unmet need for menstrual hygiene management in six countries in Sub-Saharan Africa: A multilevel analysis. *BMC Women's Health*, 24(1), 473.
- Alam, M. U., Luby, S. P., Halder, A. K., Islam, K., Opel, A., Shoab, A. K. and Unicomb, L. 2017. Menstrual hygiene management among Bangladeshi adolescent schoolgirls and risk factors affecting school absence: results from a cross-sectional survey. *BMJ open*, 7(7), e015508.
- Andargie, F. A. and Tinuola, F. R. 2025. Effects of school menstrual hygiene management, water, sanitation, and hygiene interventions on girls' empowerment, health, and educational outcomes: Lasta district, Amhara regional state, Ethiopia. *PLoS One*, 20(4), e0321376.
- Aridi, R. and Yehya, A. 2023. Sustainability assessment of sanitary pad solutions to reduce period poverty. *Environment, Development and Sustainability*, 1-22.
- Chinyama, J., Chipungu, J., Rudd, C., Mwale, M., Verstraete, L., Sikamo, C. and Sharma, A. 2019. Menstrual hygiene management in rural schools of Zambia: a descriptive study of knowledge, experiences and challenges faced by schoolgirls. *BMC public health*, 19, 1-10.
- Davis, J., Macintyre, A., Odagiri, M., Suriastini, W., Cordova, A., Huggett, C. and Kennedy, E. 2018. Menstrual hygiene management and school absenteeism among adolescent students in Indonesia: evidence from a cross-sectional school-based survey. *Tropical Medicine & International Health*, 23(12), 1350-1363.
- Eades-Baird, M. R. and Nyaronga, D. 2024. Psychological, Informational, and Material Factors Impacting Girls' Menstruation-related School Absenteeism in Rural Tanzania. *East African Journal of Education Studies*, 7(4), 386-398.
- Gbogbo, S., Axame, W. K., Wuresah, I., Gbogbo, E., Klutse, P., Hayibor, F. and Danso-Appiah, A. 2025. Menstrual health needs and educational outcomes among adolescent girls living in countries in sub-Saharan Africa: systematic review protocol. *BMJ open*, 15(5), e094613.
- Hennegan, J., Dolan, C., Wu, M., Scott, L. and Montgomery, P. 2016. Measuring the prevalence and impact of poor menstrual hygiene management: a quantitative survey of schoolgirls in rural Uganda. *BMJ open*, 6(12), e012596.
- Kakwani, J., Meena, J. K., Verma, A. and Dahiya, N. 2021. Emerging issues and barriers in access to menstrual hygiene management in a tribal district of India. *Int J Commu Med Public Health*, 8(4), 1985-90.
- Magayane, R. and Meremo, J. 2021. Menstrual hygiene management practices for adolescent girls among public secondary schools in Kibondo district, Tanzania. *East African Journal of Education and Social Sciences*, 2(3), 107-115.
- Masatu, H. S. and Msoka, E. 2024. How Menstrual Hygiene Management Facilities are Supportive to Girl Students in the School Environment in Tanzania. *Journal of Research Innovation and Implications in Education*, 8(1), 213-222.
- Method, A., Hassan, J., Assenga, O., Kamugisha, P., Kawishe, T., Luchagura, F. and Bintabara, D. 2024. Challenges faced by adolescent girls on menstrual hygiene management: School-based study, Siha, Kilimanjaro, Tanzania. *PLOS Global Public Health*, 4(6), e0002842.
- Nabwera, H. M., Shah, V., Neville, R., Sosseh, F., Saidykhan, M., Faal, F. and Torondel, B. 2021. Menstrual hygiene management practices and associated health outcomes among school-going adolescents in rural Gambia. *PloS one*, 16(2), e0247554.
- Ngeno, V. 2019. Retaining Teenage Girls in Kenya: The Effect of Provision of Sanitary Pads in Ainamoi Sub-County Primary Schools, Kericho County.
- Ngilangwa, D. P., Ngalesoni, F., Temu, F., Meremo, A. J., Cooper, D. and Lembani, M. 2025. Menstrual Hygiene Management Practices and Associated Factors Among Adolescent Schoolgirls in Rural Tanzania: A School-Based Cross-Sectional Study. *Women's Reproductive Health*, 1-23.
- Njee, R. M., Imeda, C. P., Ali, S. M., Mushi, A. K., Mbata, D. D., Kapala, A. W. and Malebo, H. M. 2024. Menstrual health and hygiene knowledge among post menarche adolescent school girls in urban and rural Tanzania. *Plos one*, 19(3), e0284072.
- Ombogo, P. A., Oino, P. G., Nyamwange, C. and Mildred, L. 2023. Influence of menstrual hygiene management knowledge, attitudes and practices and school attendance among girls in public primary schools in Kisumu West Sub-County, Kisumu County, Kenya. *J Res Innov Implic Educ*, 70-9.
- Rossouw, L. and Ross, H. 2021. Understanding period poverty: socio-economic inequalities in menstrual hygiene management in eight low-and middle-income countries. *International journal of environmental research and public health*, 18(5), 2571.
- Sampa, M., Musukuma, M., Fisa, R., Musonda, P. and Young, T. 2021, February. Interventions for keeping adolescent girls in school in low-and middle-income countries: a scoping review. In *Frontiers in Education* (Vol. 5, p. 614297). Frontiers Media SA.
- Serafim, M. F. B. 2023. Department of Public Law and Governance (PLG).
- Seydou, F., Amadou, B., Abdoulaye, S., Alassane, T., Oumar, T. S., Ibrahima, K. and Niani, M. 2020. Menstrual Hygiene Management in School Setting in Two Secondary Schools in the Bamako District, Case of the School "La Chaîne Grise" and the School Cheick Modibo Diarra. *Open Journal of Obstetrics and Gynecology*, 10(02), 284.
- Sundari, T., George, A. J. and Sinu, E. 2022. Psychosocial problems of adolescent girls during menstruation. *Journal of mental health education*, 3(2), 47.
- Sure, R. A., Odek, A. and Otuya, P. 2023. Socio Economic Determinants and Effective Menstrual Management among Primary School Girls in Rural Schools in Nyatike Sub County. *African Journal of Empirical Research*, 4(2), 964-975.
- Tegegne, T. K. and Sisay, M. M. 2014. Menstrual hygiene management and school absenteeism among female adolescent students in Northeast Ethiopia. *BMC public health*, 14, 1-14.
- Unicef, 2021, Menstrual Health and Hygiene Situation among Schoolgirls in Tanzania- Brief Report. Available at <https://www.unicef.org/tanzania/media/2726/file/2021%20MHH%20Brief%20-%20Main%20summary%20report>