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Influence of Menstrual Hygiene and Sanitation on Girls Participation in Primary School Education in West Pokot County, Kenya: Head teachers Opinion

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The attainment of education for all objectives ensures that girls participate in education across the academic year even during their menstrual period. The menstrual health and hygiene management requires provision of adequate toilets, water, and sanitary pads for girls. Data from Sub-County Director of Education for Kacheliba showed that the retention and completion rate of girls for 2022 in primary school was below that of boys. This paper sought the head teachers' opinion regarding girls' menstrual hygiene and sanitation and its influence on girls' participation in primary school education. The study was conducted in 39 public primary schools in Kacheliba Sub-County (North Pokot), West Pokot County Kenya. The study adopted both qualitative and quantitative approaches. A sample size of 12 schools representing 30.0% were selected using simple random sampling technique. Data was collected through a structured questionnaire administered to head teachers in the selected schools. Analysis of data was done using descriptive statistics and thematic content analysis for qualitative data. Research results showed that majority of schools had inadequate toilets to be used by girls as they ended up sharing the available ones with boys. This made it uncomfortable for them to share the toilets during their menstrual period. Considering being semi-arid, water availability was inadequate as only 1 out of 11 schools was found to have water supply during the whole academic year. The government of Kenya programme of providing free sanitary pads to girls across public primary schools in the country was found to be irregular. This state of affairs made most girls in Kacheliba sub county absent from school during their menstrual period. The paper concludes that menstrual hygiene and sanitation negatively affected girl child participation in primary education because incidents of absenteeism were high, truancy cases and retention was low. The the government should provide capitation funds vote for schools to purchase sanitary towels, partner with other organisations to set up hygiene and sanitation facilities, and educate the community on the need for supporting girl child menstrual hygiene and management.

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INTRODUCTION

The education of girls benefits the society as a whole and has received increased attention in recent times. Girls' education forms the cornerstone of development and the gateway to full participation as women in a nation's political, economic, and cultural life (Vashisht, Pathak, Agarwalla, Patavegar & Panda, 2018). Despite personal, family and community benefit that will be accrued through girl child education, they encounter menstrual health management (MHM) challenges in their puberty years (Korir, Okwara & Okumbe, 2018). World Health Organisation and UNICEF define MHM as women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials (Hennegan, Dolan, Wu, Scott & Montgomery, 2016). Menstruation is part of the female reproductive cycle starting at puberty (Barasa & Waldman, 2022). Good menstrual hygiene is crucial for both physical and mental health, education, and dignity of adolescent schoolgirls (Vashisht et al., 2018). This is because MHM requires adequate frequency of absorbent change, clean absorbents, adequate disposal, washing the body with soap and water and privacy for managing menstruation.

Many girls in developing countries experience MHM challenges especially at school because

these facilities are inadequately available and provided in learning institutions (Nyanza et al., 2018). In India, Vashisht et al. (2018) found out that 40% girls remained absent from school during their menstruation because of lack of MHM facilities and resources in schools. In Indonesia, Davis et al. (2018) found out that high prevalence of poor MHM and considerable school absenteeism was due to menstruation among Indonesian girls. In Zambia, Chinyama et al. (2019) found that girls in the rural schools were often forced to skip school due to the various challenges they face in practicing menstrual hygiene. In Tanzania, Jahanpour, Hatfield, van der Meer, Allen-Scott, Orsel and Bastien (2018) found that sanitation facilities were inadequate in many households. In Uganda, Anumaka (2018) found out that girls' participation improved when sanitary towel was provided, dropout rate decreased greatly, and schooling improved. This shows that the issue of menstrual hygiene and sanitation is a key issue facing girls in schools in developing countries.

In Kenya, education for the girl child among pastoralist groups still faces a large challenge in public primary schools despite the big enrolment in public primary schools following the launch of Free Primary Education in Kenya more than twenty years ago (Ouda, Opiyo & Wambiya, 2015). The girls' academic performance in Turkana County public primary schools is generally low (Masita, Kabage, Nyariki & Muiro, 2021). Korir, et al. (2018) discovered that girls from rural pastoralist communities experienced insurmountable MHM barriers and that

inadequate coping strategies adopted result in sub-optimal school performance, absenteeism, and physical problems. This shows that the problem of MHM is evident across pastoral counties. This paper investigates the influence of menstrual hygiene and sanitation on girls' participation in primary school education in Kacheliba Sub County, West Pokot County, Kenya. This is due to the low completion rate of girls compared to boys in recent years where many are dropping out of school, others do not attend school regularly while others performance in examinations and classwork activities is poor.

Statement of the Problem

Kacheliba Sub County (also known as Pokot North) has recorded low completion rate of girls in primary school education cycle compared to boys in the last five years. Despite various initiatives of addressing girls' challenges, the rate at which many are dropping out of primary school is worrying (Andiema, 2021). One of the challenges mentioned in the background information relates to menstrual hygiene and sanitation. Research examining how girls' menstrual hygiene and sanitation affects primary education participation is inadequate and especially among the pastoralist community in Kacheliba Sub County. Therefore, the study intends to fill this gap that exist in literature by finding out girl menstrual hygiene and sanitation effects their participation in primary school education in Pokot North Sub County Kenya.

Research Objectives

The specific objectives of the study are to:

- To determine the effect of toilets availability on girls' participation in education during their menstruation period
- To establish how water availability affects girls' participation in education during their menstruation period
- To find out how provision of sanitary pads affects girls' participation in education during menstruation in public primary schools in Pokot North Sub County.

EMPIRICAL STUDIES

This section reviews empirical studies that have been conducted in relation to menstrual hygiene and sanitation and girls' participation in schooling. In India, Vashisht et al. (2018) determined the percentage of girls absent from school during menstruation, evaluated the various factors associated with school absenteeism during menstruation and assessed the practices regarding menstrual hygiene in New Delhi. It was found out that school absenteeism was significantly associated with the type of absorbent used, lack of privacy at school, restrictions imposed on girls during menstruation, mother's education, and source of information on menstruation. Nearly 65% reported that it affected their daily activities at school and that they had to miss their class tests and classes as a result of pain, anxiety, shame, anxiety about leakage, and staining of their uniform.

In Indonesia, Davis et al. (2018) assessed the prevalence of menstrual hygiene management (MHM) knowledge and practices among adolescent schoolgirls in Indonesia. Using a cross-sectional research design, the researchers also evaluated factors associated with poor MHM and school absenteeism due to menstruation. Research findings showed that High prevalence of poor MHM and considerable school absenteeism was due to menstruation among Indonesian girls. This highlighted the need for improved interventions that reach girls at a young age and address knowledge, shame and secrecy, acceptability of WASH infrastructure and menstrual pain management. Chinyama, Chipungu, Rudd et al. (2019) explores girls' experiences of MHM in rural schools of Zambia from the perspectives of schoolgirls, schoolboys and community and school-based adults key to MHM for schoolgirls. Most girls reported learning about menstruation only at menarche and did not know the physiological basis of menstruation. They reported MHM-related challenges, including: use of non-absorbent and uncomfortable menstrual cloth and inadequate provision of sanitary materials, water, hygiene,

and sanitation facilities (WASH) in schools. In particular, toilets did not have soap and water or doors and locks for privacy and had a bad odour. Girls' school attendance and participation in physical activities was compromised when menstruating due to fear of teasing (especially by boys) and embarrassment from menstrual leakage.

In Tanzania, Nyanza et al. (2018) determined access, utilization, and determinants of access to sanitation facilities among pastoral communities in rural areas of northern Tanzania. Results showed limited access to water and sanitation facilities in communities in the Ngorongoro Conservation Area. Individual and community factors are key determinants for a household to own a sanitation facility. Another research by Barasa and Waldman (2022) explored access to water, sanitation, and health in pastoral communities in northern Tanzania. They found out that although Tanzania is committed to enhancing its citizens' access to WASH services, pastoral sanitation and hygiene tend to be overlooked and little attention is paid to complex ways in which access to 'clean' water and 'adequate sanitation' is structured in these communities.

In Uganda, Hennegan, Dolan, Wu, Scott, and Montgomery (2016) assessed Ugandan schoolgirls' menstrual hygiene management (MHM) practices and estimate the prevalence of inadequate MHM. It was found out that many girls failed to meet available criteria for adequate MHM, with no significant difference between those using reusable sanitary pads and those using existing methods, predominantly cloth. Aspects of MHM predicted some consequences including shame, not standing in class to answer questions and concerns about odour. Further, Anumaka (2018) examines the social and academic impact of providing sanitary towels for girls in Primary schools in West Nile Uganda. Results showed that girls in Moyo (rural area) were more affected socially and academically during menstrual cycle. In Kampala, used as control, shows that they are not affected by menstrual cycle, probably because provision of sanitary towels is not an issue and

girls are aware and acquainted with management of menstrual cycle.

In Kenya, Girod, Ellis, Freeman, and Caruso (2017) study documented differences between girls' experience of menstruation at public schools (where the Kenyan government provides menstrual pads) and private schools (where pads are not provided) in two informal settlements of Nairobi, Kenya. Results showed that public school supply chains were unreliable, and equitable pad provision was not assured. Girls in private schools struggled to access pads because they were not provided. Sanitation facilities were physically available, but Muslim girls were unable to practice ablution due to the design of toilets in our study schools. Girls experienced fear and anxiety due to harassment from male peers and had incomplete information about menstruation from teachers. Korir, Okwara and Okumbe (2018) assessed MHM practices among primary school girls from a pastoralist community in Kenya. It was found that the Maasai culture prohibited girls from sharing latrines with boys, hence girls preferred to use nearby bushes around school. Because of their nomadic culture, most homesteads and schools did not construct proper latrines. Research by Masita, Kabage, Nyariki and Muiro (2021) sought to evaluate challenges affecting girl child on academic performance on Kenya Certificate of Primary Education at Turkwel Zone in Turkana. It was concluded that extra than 50% of girls in public primary schools at Turkwel Zone in Loima Sub-County did not have good enough sanitation centres to make certain that girls do not leave out school which in turn affects their overall performance.

MATERIALS AND METHODS

The study was conducted in Kacheliba Sub County. The Sub County is associated with high dropout rate of girls and this study sought to determine how girls' hygiene and sanitation affected girls' participation in schooling. This study was guided by descriptive survey research design that combined qualitative and quantitative approaches. The unit of the study involved 39 public primary schools from Kacheliba Sub

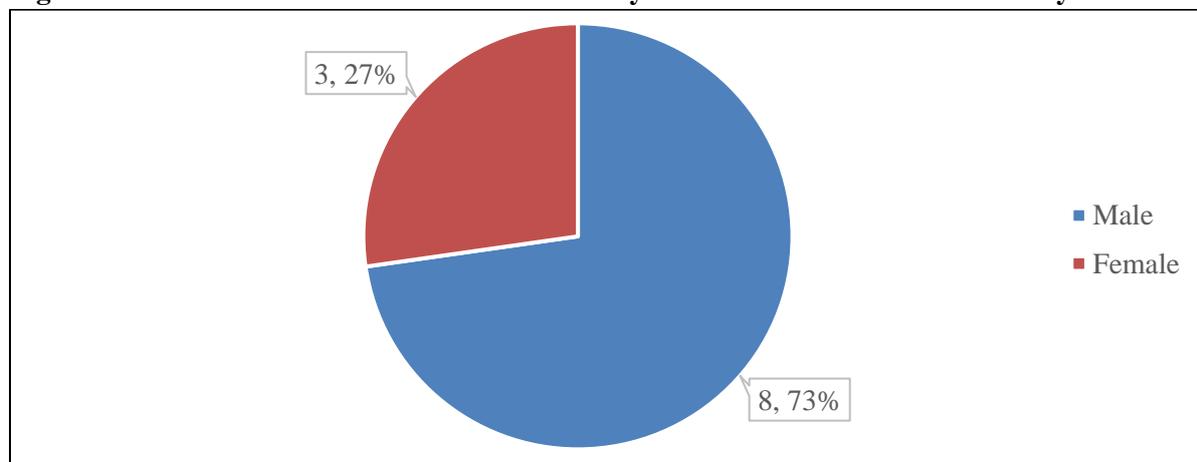
County. In these institutions, the head teachers acted as the respondents for the study because they are charged with ensuring that the needs of learners (girls in particular) are addressed to ensure that they enjoy and participate in education which is their right as enshrined in Kenya’s constitution 2010. Considering the vastness of the Sub County, a sample size representing 30.0% was selected leading to 12 head teachers. The 12 head teachers were selected using simple random sampling technique. In schools that head teachers were not available, their deputies were chosen to respond to questions. Data collection was through a semi structured questionnaire which was structured as per objectives of the study. The questionnaires was tested for validity using content validation measure. Reliability was established

through test – retest technique. Administration of questionnaire was through drop and pick method after the targeted respondents provided consent. Quantitative data collected was analysed using descriptive statistics; frequencies and percentages with the help of Statistical Package for Social Sciences (SPSS version 23.0). Qualitative data from open ended questions is presented using narrations and in some instances in extract of what respondents actually said. The results are given in figures and tables in the next section.

RESULTS AND DISCUSSIONS

This section presents the results of data analysis, interpretation, and discussion in line with the themes of the study. Figure 1 presents the distribution of head teachers based on gender.

Figure 1: Distribution of head teachers in Primary Schools in Kacheliba Sub County



Result show that most 8 (72.7%) of schools are headed by male head teachers with only 3 (27.3%) being headed by female teachers. To understand

how the 11 primary schools that were involved in this investigation were categorised as either day, the outcomes are provided in *Figure 2*.

Figure 2: Distribution of primary schools’ categories



Results show that most 6 (54.5%) of schools in Kacheliba are mixed day and boarding, 4 (36.4%) are mixed day secondary schools while 1 (9.1%) was a fully boarding primary school. further, 10 schools were mixed with only 1 school that was boarding enrolling girls. Therefore, this finding reflects the primary school girls' hygiene and sanitation situation in Kacheliba Sub County, Kenya.

Availability of Sanitation Facilities for Use by Girls

Sanitation facilities include of toilets, bathroom and latrines which are required to be available in schools to be used by pupils and especially girls during their menstrual period. Firstly, the head teachers were asked if the toilet facilities in their schools were sufficient to be used by both boys' and girls' pupils in their schools. The results are given in *Table 1*.

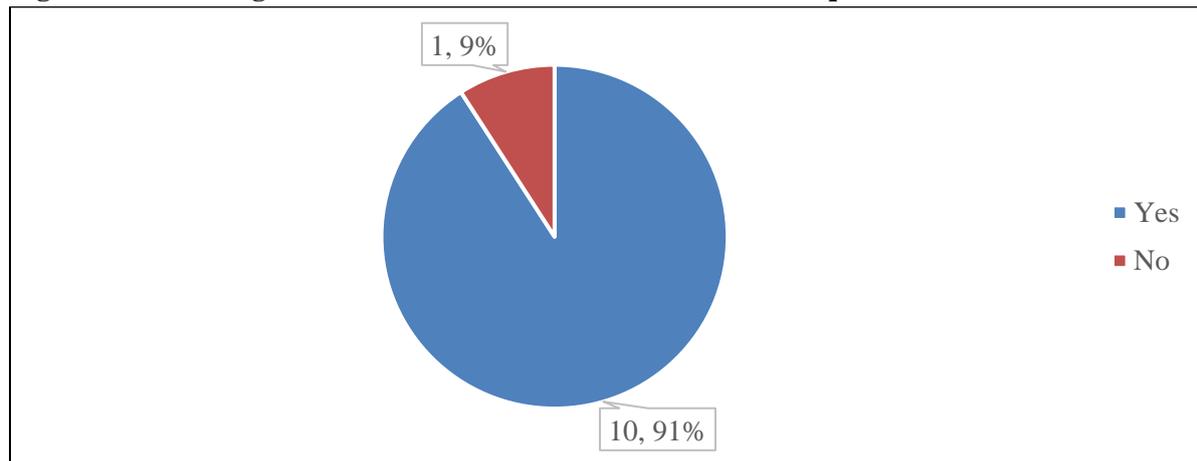
Table 1: Adequacy of toilets facilities to be used by pupils in schools

Adequacy of toilets	Frequency	Percent
Yes	1	9.1
No	10	90.9
Total	11	100.0

Result show that majority 10 (90.9%) of school heads indicated that the toilet facilities that are available in their schools are inadequate to serve both girls and boys pupils. Only one school was found to have adequate toilet facilities. This means that there is inadequate number of toilets in public primary schools in Kacheliba Sub-County

which is against the ministry of health guidelines. In relation to this investigation, the school heads were asked if there are instances where girls fail to come to school during their menstruation period because of inadequate toilet facilities. Their response is given in Figure 3.

Figure 3: Whether girls fail to come to school as a result of inadequate toilets



Based on figure 3 head teachers usually record instances where girls during their menstrual period fail to come to school because the toilets are inadequate and therefore prefer to stay at home and manage their situation. This means that many girls miss schools during their menstruation as there are no adequate toilet facilities for them to go and clean themselves or change their pads. Therefore, a significant number of girls miss

schools while their counterparts continue with schooling.

Water Availability in School for use by Girls

When the head teachers were asked whether water was available for use in their school for the full academic year, most 7 (63.6%) reported that the supply of water was inadequate, 2 (18.2%) indicated that it was adequate and 2 (18.2%) of

schools had no water supply in their school. This is what head teacher No. 7 said:

We do not have clean drinking water; the water we use comes from a seasonal river which is sometimes contaminated requiring us to boil before use.

For the Head teacher No. 8 who reported that they did not have water in their school, this is what he reported:

There is no water in the school compound but learners walk for 2 kms to fetch water.

The responses show that water is scarce and a challenge that many public primary schools in Kacheliba County experience. Only two schools;

one with a borehole (boarding school) and the other one supplied through a community water project were found to have adequate water supply for use in school. As part of promotion of good health and hygiene practices, water is a key component. Kacheliba is an arid and semi-arid area and therefore annual rainfall is below 600 mm which implies that water scarcity is a problem (Obwocha, Ramisch, Duguma, & Orero, 2022). With this kind of situation, it is expected that government ensures that water is available in schools for use even by girls during their menstrual period. To understand the relationship between water availability and girls' school participation during their menstruation period, the results are given in *Table 2*.

Table 2: Relationship between water availability and girls' participation in school during their menstrual period

Response	f	%
Water availability increases participation rate by learners	2	18.2
Helps in sanitation and general cleanliness	5	45.5
Availability makes pupils to concentrate on their academics instead of going to fetch water	1	9.1
Lack of water results to high absenteeism	1	9.1
Unavailability of water makes girls uncomfortable resulting to absenteeism	2	18.2
Total	11	100.0

According to 5 (45.5%) of school heads, water availability in their schools improved sanitation standards and general cleanliness of girls in the schools. It is also clear that water availability increases girls' participation in class work activities during their menstruation (18.2) and unavailability of water makes girls uncomfortable resulting to high absenteeism incidents in schools (18.2%). Head teacher no. 3 said that:

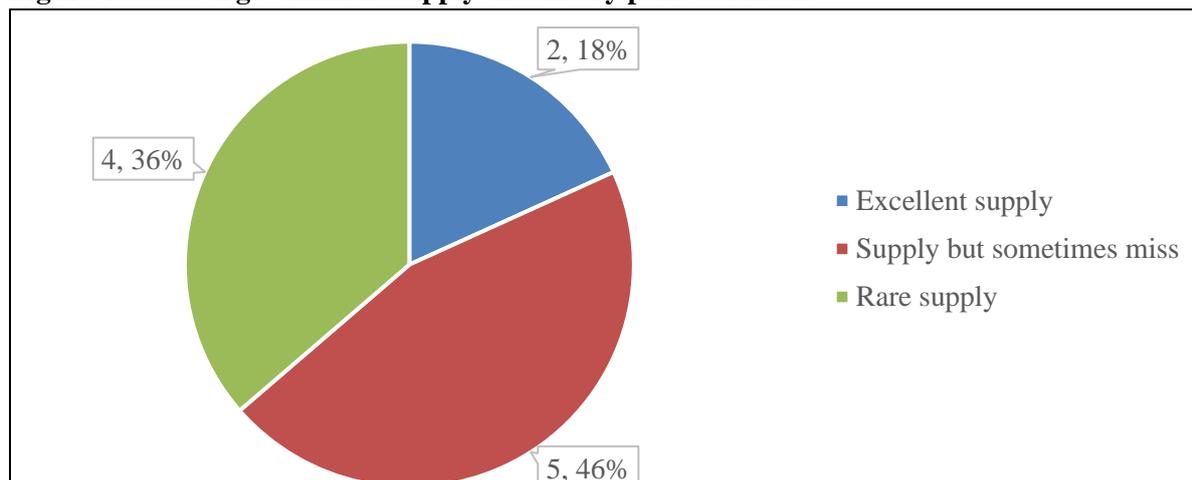
Availability of water in schools assists pupils to concentrate on their academics well. This is because the time that could be wasted in fetching water from the river is used in academic work which later improves their performance in school.

In addition, when water is available in schools, the concentration of girls despite being in their menstrual period appears to be high. The finding therefore implies that water scarcity makes many girls miss school during their menstrual period as it makes them uncomfortable.

Supply of Sanitary Pads for use by Girls

The basic necessity by girls during their menstrual period is being given the menstrual pads. The government of Kenya has a programme of supplying sanitary pads to all public institutions across the country. Therefore, the study sought the opinion of school heads on the state of government of Kenya supply of sanitary pads to their schools. The results are given in *Figure 4*.

Figure 4: State of government supply of sanitary pads to schools



All head teacher agreed to have at least receive government supply of sanitary pads to their schools. However, the response given in Figure 4 show that 5 (45.5%) said they were supplied. Still, at times the government did not provide the sanitary pads to their schools, 2 (18.2%) said that the supply is regularly. In comparison, 4 (36.4%) indicated that they rarely received supply of sanitary pads in their institutions. This means that despite the government policy on sanitary pads provision, it is not regularly supplied in schools. Even some schools can go even more than two months without being supplied. To understand the initiatives, they were undertaking to address girls' needs of this vital resource during their menstrual period, 3 (27.3%) indicated that girls improvise old and worn-out clothes to use them during this

period and 2 (18.2%) indicated that some female teachers share or buy for their girls these sanitary towels. Head teacher No. 1 (who was a female) reported that:

We as teachers provide them or share but sometimes, we encourage them to stay around in case of heavy flow.

Other schools reported that they sought support from NGOs; others indicated that when girls lacked sanitary pads, they were advised not to come to school and other schools contacted their parents to purchase sanitary pads for their children. The head teachers were also asked to indicate the capacity of parents to support their girls in acquisition of sanitary pads. Their responses are summarised in *Table 3*:

Table 3: Parents capacity to purchase sanitary pads for their girls

	Frequency	Percent
Incapable of purchasing sanitary	7	63.6
Very few parents	4	36.4
Total	11	100.0

Considering the poverty situation which is high amongst many households in Pokot North Sub County, 7 (63.6%) of head teachers indicated that parents were not able to purchase sanitary pads for their children and only 4 (36.4%) indicated that parents were capable of purchasing sanitary pads for their girls. This is what Head teacher No. 3 said:

The capacity of parents to support their girls to acquire sanitary pads is always low as

many even cannot afford to buy other basic items like books and uniforms.

Another head teacher No. 1 indicated that this problem is not only at family level but at the community level:

Our community is too much behind in supporting and buying pads. We urge the government to supply enough pads.

To understand how supply and provision of sanitary pads to girls affect their school participation, the head teachers' responses is provided in *Table 4*.

Table 4: Influence of sanitary provision on girl school participation

	Frequency	Percent
Most girls are free and relaxed in schools where sanitary pads are provided	3	27.3
Absence leads to absenteeism resulting to truancy	6	54.5
Provision of pads make girls to be retained in the school	2	18.2
Total	11	100.0

Based on table 4 6 (54.5%) of head teachers observed that absence of sanitary pads provision to girls in public primary schools in Pokot North Sub County resulted to increased absenteeism which result to some dropping out of school completely. On the positive side, when pads are provided, girls feel relaxed while in school (27.3%) which ultimately result to higher retention rate of girls in primary school education (18.2%).

DISCUSSIONS

Girls pupils need to enjoy the right to basic education through provision of necessary support by parents, school, government and community. This study has found out that lack of appropriate WASH facilities in schools in Kacheliba sub county has resulted to poor mensutrual hygiene management. This agrees with Korir et al. (2018) who found out that girls from rural primary schools settings mainly among the pastoralist communities encountered menstrual challenges due to poor state of WASH infrastructure. In this study, it was found out that some girls do not come to school during their menstrual period cycle because of lack of water, poor state of toilet (including latrines) and lack of menstrual sanitary pads. This agrees with Vashisht et al. (2018) research in India that found out that many girls were absent from schools because of physical discomfort during meanstruation occasioned by lack of water, toilet and bathroom facilities for MHM. Even in Zambia, Chinyama et al. (2019) found out that poor quality of menstrual cloths forced many girls to stay at home for fear of being embarrassed in schools during their menstrual period because of inadequate MHM facilities. Therefore, poor provision of MHM facilities

appear to hinder girl child education not only in Kacheliba but other developing countries as well.

CONCLUSIONS AND RECOMMENDATIONS

The paper has identified that low retention and completion rate by girls in public primary schools in Pokot North Sub County is mainly caused by hygiene and sanitation issues that they face during menstruation period. Most schools had no adequate water supply, making girls trek long distances to fetch water in rivers. It has also been found that despite toilets being available in all schools that were studied, they were found to be inadequate for use by both boys and girls as there were not separate toilets for them (they shared the toilets). This made girls to be uncomfortable during their menstruation to use toilets that they shared with boys. Furthermore, the lack of water for use in toilets and cleaning purposes made a number of girls to miss school during their menstruation. The paper has also found out that government commitment to supply sanitary pads to girls in public primary schools is not effectively implemented as it is done irregularly. This means that policy of sanitary pads provision is challenged by implementation an issue which continues to affect girl child education in the study area. The capacity of parents due to poverty makes them unable to purchase sanitary pads for their girls resulting to them missing schools during their periods. In general, the paper has found out that poor hygiene and sanitation negatively affected girls' participation in primary school education during their menstruation period in Pokot North Sub County. The papers make the following recommendations for theory and practice to various stakeholders involved in

matters of girl child education among pastoralist and arid and semi-arid areas:

- There is need for sensitisation of community on the importance of girl's hygiene and sanitation during their menstrual period by informing them on what needs to be done at family, community, and school level to support girl child.
- The government of Kenya through ministry of education should address the issue of irregular supply of sanitary pads to schools by allocating a kitty for sanitary pads school accounts during disbursement of capitation grants. This will make it easier for schools to make local arrangements in supplying sanitary pads for their girls
- In situations whereby the government has failed in undertaking sanitation and hygiene mandate, there is need for other stakeholders to come on board to support girl child education by construction of separate toilets for boys and girls and initiating water resource and harvesting programmes to keep girls in schools the whole academic year.
- Considering the cost of sanitary pads is high and may not be affordable to many families, this paper recommends that schools should collaborate with institutions that manufacture re-usable sanitary pads to be provided to girls and this will ensure that they are maintained in school during their menstruation period.

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