



RESEARCH ARTICLE

THE INFLUENCE OF PROVISION OF SANITARY PADS ON TEENAGE GIRLS' DROPOUT RATES IN AINAMOISUB-COUNTY PUBLIC PRIMARY SCHOOLS, KERICHO COUNTY, KENYA

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ABSTRACT

Teenage years to every child is challenging emotionally, physically and psychological especially for the girl child. Studies have indicated that three out of ten girls miss school in Africa during their menstruation periods and eventually drop out as a result. This is due to lack sanitary towels due to economic situations in families of which the Kenyan government started providing in 2011. This study established the influence of provision of sanitary pads on Teenage girls' dropout rates in Ainamoisub county, Kericho County, Kenya. Liberal Feminism Theory was adopted in this study. A conceptual framework was formulated to guide the study. The independent variable was provision of sanitary pads while the dependent variable is Teenage girls' dropout rates in Ainamoisub County, Kericho County Kenya. *Ex post facto*, Descriptive, Correlational and Mixed Method Research design was adopted in the study. The study was in form of quantitative and qualitative research. The Study population consisted of 686 teenage girls, 99 head teachers. The sample size was 20 head teachers and 140 teenage girls. Quantitative data was analyzed using descriptive and inferential statistics. Data was collected using questionnaires, focus group discussion, and interview schedule and document analysis. While qualitative was analyzed using themes and sub themes. The study established that there was a moderate relationship between girls drop out and provision of sanitary pads. The Pearson product moment correlation coefficients was 0.496 which account for 24.60% of the variation. The study concluded that provision of sanitary pads reduced dropout rate. It recommend that teenage girls should be provide with sanitary pads to keep them in school. The findings of this study will be significant to stakeholders in education guiding them on ways of improving teenage girls' academic progression and performance. It will also guide in improving on policies that will help the girl child and protect the girl child to enable them access education comfortably.

INTRODUCTION

Drop out in school is when a student enrol but don't complete the particular education programmed enrolled. According to UNESCO (2010) revealed that it is clear that the number of children enrolled in school has increased over time. Nevertheless, a significant proportion of children who start primary school are not completing this cycle. There are many factors associated with drop out, some of which belong to the individual, such as poor health or malnutrition and motivation. Others emerge from children's household situations such as child labour and poverty. School level factors also play a role in increasing pressures to drop out such as teacher's absenteeism, school location and poor quality educational provision. It further indicates that the system of educational provision at the community level generates conditions that can ultimately impact on the likelihood of children to drop out from school. According to this findings it's a clear indication that drop out is still an issue especially in developing countries. According to Plan International (2021) Nearly two million girls (64%) aged 14-21 in the UK have missed a part day or full day of school because of their period, with 13% of girls missing an entire school day at least once a month, this is according to a new survey by

global children's charity Plan International UK. It further reveal that Lack of proper education around periods, the stigma and shame around menstruation and the cost of period. More than a third (36%) of those that have missed a part day or full day of school because of a period say they have struggled to catch up on schoolwork as a result of missing time off school. Nearly two thirds (62%) of girls have felt less able to take a test or sit an exam when on their period. UNICEF (2019) on the report on Child marriage, adolescent pregnancy and school dropout in South Asia. It indicated that factors such as poverty, culture and religion may influence both decisions about schooling and about marriage (and childbearing). Therefore, efforts to delay marriage and childbearing and keep girls in school must address these shared underlying factors. According to Krishnan, M (2022) of New Delhi European Union found that millions of girls in India are missing out on school due to stigma over periods and a lack of sanitary facilities. Menstruation taboos are forcing girls out of school In India. Menstruation remains an undiscussed subject in many communities. It further revealed that Social exclusion and a lack of education on menstrual hygiene are forcing many girls in India to drop out of school early or be ostracized for the duration of their menstruation cycle every month.

This practice continues to be observed in huge pockets of India's rural hinterland where a lack of awareness and knowledge regarding menstrual hygiene is prevalent among school aged girls. World Bank (2016) reported that globally, periods are causing girls to be absent from school. World Bank, (2017) in the article education for global development estimates that one in ten girls in Sub-Saharan Africa misses school during their menstrual cycle. By some estimates, this equals as much as twenty percent of a given school year. This is a very high percentage in terms of syllabus coverage. According to Population Council (2017) showed that in Malawi one-third of female students reported missing at least 1 day of school during their previous menstrual period, the data suggest that menstruation accounts only for a small proportion of all female absenteeism and does not create a gender gap in absenteeism. World Vision (2023) indicated that in Eswatini it was found that amongst other reasons, the girl child drops out of school because of menstruation. Some cannot afford these sanitary pads; some even decide to stay at home because the school environment does not have proper sanitation. That is why they feel demotivated and end up not going to school at all. A study done in Pakistan by Wasan Y *et al* (2022), on the practices and predictors of menstrual hygiene management material use among adolescent and young women in rural Pakistan: A cross-sectional assessment, and established that in low- and middle-income countries (LMICs), women often use inappropriate materials to manage menstruation, which can threaten their health. Improper practices can also have critical downstream consequences beyond physiologic health, including restricting adolescent girls' access to academic pursuits. Whether a woman is menstruating can also influence her participation in social and religious practices due to cultural norms. It further revealed that for adolescent girls, school absenteeism during menstruation is broadly reported in various low and middle-income countries settings, including Pakistan. Such schools typically lack gender-sensitive sanitation facilities to manage menstruation, which can affect adolescent girls' safety, dignity, and privacy. On a personal level, this can affect girls' sense of self-esteem and agency. From an economic perspective, there can be reduced per capita earning potential, as monthly absenteeism can lead to poor performance and negatively impacts education success.

UNICEF (2019) has emphasized that multiple Sustainable Development Goals (SDGs) related to health, education, gender equality, and water sanitation and hygiene (WASH) cannot be fully realized without paying due attention to and investing in menstrual health and hygiene. There are several possible consequences to inappropriate Menstrual Hygiene Management (MHM). Physiologically, it can increase one's susceptibility to urinary tract infections. Some studies also report an association between secondary infertility and unhygienic MHM practices. There are additionally non-physiological consequences. If a girl has not been adequately informed about menstruation, experiencing menarche for the first time can be traumatic and cause a feeling of distress. The study indicates the need for multi-sectoral efforts to introduce Menstrual Hygiene Management (MHM)-specific and MHM-sensitive interventions to improve MHM practices, ranging from the availability of low-cost MHM materials to the inclusion of MHM education in school curriculums and within the community platforms. A study by McCammon E *et al* (2020) on exploring young women's menstruation-related challenges in Uttar Pradesh, India, using the socio-ecological framework, established that menstruation frequently poses psychological, social, and health challenges for young women living in low- and middle-income countries. It further indicated that in countries such as India, where menstruation is stigmatized, it can be particularly difficult. It examined challenges related to menstruation for young women living in slums in Lucknow, Uttar Pradesh, India. This study revealed that on the individual level, young women lack knowledge about menstruation. Socially these young women experience stigma around menstruation, lack opportunities to discuss menstruation, and experience limitations around mobility and other activities during menstruation. Many young women lack resources for safely managing menstruation at home and in school, such as private bathrooms with clean water. Some countries, menarche is associated with higher rates of school dropout among young women. School

dropout can be due to multiple factors, including social pressure to marry and bear children with the onset of menses and the difficulties of managing menstruation while in school. A study done by Sivakami, M *et al* (2018) on Effect of menstruation on girls and their schooling, and facilitators of menstrual hygiene management in schools surveys in government schools in three states in India explains that lack of menstrual knowledge, poor access to sanitary products and a non-facilitating school environment can make it difficult for girls to attend school. In India, interventions have been developed to reduce the burden of menstruation for school girls by government and non-governmental organizations (NGOs). They sought to identify challenges related to menstruation, and facilitators of menstrual management in schools in three states in India. It further revealed that the Girls reported that menstruation affected school attendance and concentration and was associated with pain and fear of stain or smell. About 45% of girls reported using disposable pads in both model and regular schools, but only 55% and 29% of pad-users reported good disposal facilities, respectively. It further reported that absenteeism during menstruation was significantly lower in Tamil Nadu and Maharashtra compared to Chhattisgarh, and halved in model compared to regular schools. UNICEF (2014) pointed out that in Tamil Nadu, India 79 per cent girls and women were unaware of menstrual hygiene practices. The percentage was 66% in Uttar Pradesh, 56% in Rajasthan and 51% in West Bengal. Roenitzsch S. (2015) did an analysis on factors of success for menstrual hygiene management projects in low and lower-middle income countries. A common finding during this research is that the access to menstruation-related education and spreading awareness among communities and families regarding menstruation-related needs of adolescents are most important to improve girls' school attendance. Therefore, a holistic culture-sensitive educational programme that raises knowledge and awareness not only among girls but also among their families, schools and communities has been found to be a key factor of success to keeping girls in school. It further revealed that access to adequate sanitary facilities and sanitary items constitute important necessities for female adolescents in school. Therefore, the promotion of access to sanitary items and adequate sanitary infrastructure through involvement of local stakeholders to ensure a sustainable utilization has been found to be another key factor of success. A study done in Zambia by Chinyama, J. *et al* (2019) on menstrual hygiene management in rural schools of Zambia: a descriptive study of knowledge, experiences and challenges faced by schoolgirls. They found that teenage years are the most difficult time in the life of child and more difficult for the girl child full of psychological and emotional challenges. Sommer (2009) states that there is an increase in girl dropout rates around menarche because menarche marks the Transition to womanhood, which comes with bigger responsibilities and restrictions as well as the possibility of becoming pregnant and married. It is also a very uncomfortable time for the girls. UNICEF (2011) indicated that in southern Indian state of Tamil Nadu culturally as in many other parts of India, menstruation is considered dirty and impure and during periods girls are discouraged to attend school and stay at homes. This is majorly because of unavailability of sanitary pads, inadequate sanitation and absence of separate toilet for girls in schools, compounds the problem and has a huge impact on girls' school attendance and is a major reason for dropout. Oster & Thornton (2010) estimated that girls miss about 0.4 days of school in a 180 day school year due to their period. Moreover, using a randomized evaluation we argue that providing better sanitary products has no impact on closing this small attendance gap in developing countries. A Pilot Study done by Montgomery *et al* (2012) on Sanitary Pad Interventions for Girls' Education in Ghana proved that after 3 months, providing pads with education significantly improved attendance and in five months it improved performance among participants. Velimirovic, C (2021) in the report on Look at the Impact of Period Poverty on Girls in Kenya. Revealed that Period poverty refers to the common challenge plaguing women globally wherein they are unable to attend schools or work as a cause of a lack of funds for sanitary products. In the case of Kenya, a packet of sanitary pads costs \$1. Around 36% of Kenyans, however, live on less than the international poverty line of \$1.90 per day. High poverty rates in Kenya mean that the majority of girls face extreme barriers in

accessing to feminine hygiene products. In fact, 65% of women and girls in Kenya are unable to afford period products. A study done by Austrian, K, Kangwana, B & Muthengi, E (2020) in Kilifi County on the Effects of sanitary pad distribution and reproductive health education on primary school attendance and reproductive health knowledge and attitudes in Kenya. This study revealed that neither sanitary pad distribution nor Reproductive Health education, on their own or together, were sufficient to improve primary school attendance. A study by done by Mackatiani, C *et al* (2022). Transition in education: Perspectives on Girls' drop-out rates in secondary schools in Kenya. This paper, therefore, examined the extent to which parental economic status, early marriages, and school environment influence girls' drop-out rates in secondary schools. The study adopted a mixed-method approach. The study findings might be significant to Kenya and Africa south of the Sahara. Regression analysis showed that economic status, early marriages, and school environment influence girls' drop-out rate by 46.6 percent.

A qualitative study done on teachers and students in Kisumu district by Jewitt and Ryley (2014), on it's a girl thing revealed that Menstruation, school attendance, spatial mobility and wider gender inequalities in Kenya revealed that improved access could address some key emotional and practical problems underlying girls' absenteeism. Especially important is their role in reducing the risk of shame or embarrassment from visible menstrual leaks, which in turn helps girls to concentrate better and feel more confident as well as allowing them greater spatial mobility within and outside school. This study further indicated that girl's absenteeism was due menstrual periods. Although the term 'sickness' was used it soon became apparent in our FGs that many girls also used it as a euphemism for menstrual cramps and menstruation more generally. A study done in Kenya by Ngayila, L and Zani, A. (2014) revealed that lack of sanitary towels contributes to class absenteeism among adolescent girls, there are other menstruation related concerns that force adolescents stay out of class. Major authorities on the subject think that lack of sanitary towels among school going girls is a major cause of poor performance in school due to abdominal and/or back pain, bad smell from menstruation, and fear of ridicule from others after soiling clothes can also contribute to poor performance. Girls attending mixed schools feared to be mocked by boys leading to school absenteeism. The study also found out that the students have a general understanding of what menstruation entails, but their attitudes differ depending on their social interpretation of menstruation derived from their environments. MacLean, Hearle, & Ruwanpura (2020) this revealed that Majority of Kenyan cultures believe that menstruating women and girls are dirty and that menstrual blood is contaminated. For example, menstrual blood is believed to contaminate sacred places and menstruating women will cause chaos to others. It further established that women are not allowed to go near the vegetable plantation because it is believed the vegetables will either dry up or be inedible/ unsellable Andiema, N (2022) did a study on School and Pupils Based Factors Influencing Girls' Dropout Rate in Primary Schools in West Pokot, Kenya. This study established that school based and pupils-based factors influenced girls' dropout rate in the zone. Moreover, issues of teenage pregnancy, poor performance, poverty, sexual harassment and families believe and attitude contributed to increased cases of girls' dropout in schools. A study done by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya revealed that Low self-esteem due to menstrual circles largely mentioned as affecting the girl child because of sanitary towels hence leading to their drop out. This is a clear indication that menstrual cycle has been stigmatized. Teenage girls' school be educated on the same. It further revealed that Teenage pregnancies, Early Marriages, Female Genital Mutilation (FGM), peer influence and relations contributed to drop out rates among the girls.

Theoretical framework

Liberal Feminism Theory: Liberal feminism is a conventional perspective of the three gender theories. It stems from the idea that women must obtain equal opportunities and equal rights in society

(Acker 1987, Stromquist 1990a, Phillips 1987, and others). Stereotyping and discrimination have created a situation where women have less chance of education, fewer career opportunities, and other social dimensions in society. It argues for better allocation of resources so that women can obtain a fair share of educational opportunities. Three major points of focus in the discourse of liberal feminism are 1) equal opportunities; 2) socialization and sexual stereotyping; and 3) sexual discrimination (Acker 1987:423). This functionalist view enforces the idea that schooling is meritocratic and that success in it depends primarily on the motivation and the intellectual ability of the individual. Therefore this view of feminism does not aspire to change society; rather it aims at improving the situation within the present system, i.e. Western industrialized society (Stromquist 1990a). School and education are considered to be positive and good, and improvements are to be made within the existing system. Strategies include attempts to increase access, such as promotion of 'good practice', e.g. The Equal Opportunities Commission (Acker 1987) and training to change attitudes of teachers and pupils/students (Weiner 1986). Liberal feminism is based on the assumption that schooling is positive and improves women's welfare. Social evolution is assumed and the state is perceived as a benevolent actor which provides services and goods for the benefit of the people (Stromquist 1990a). Gordon (1996) argues that the state has perpetuated the educational inequality by legislation and educational policy and practice both during the colonial and independent Zimbabwe. Liberal feminisms criticized for ignoring patriarchy, power and the systematic subordination of women (O'Brien 1983, Weiner 1986, Acker 1987) as well as the effects of race and class (Arnot 1982, Acker 1987). Socialist feminism attempts to address some of these problems. This study found the theory relevant since it was focusing on the provision of sanitary pads in Kenyan primary schools to retain the girl child in school. By providing the sanitary pads it is a way of liberating the girls to access education without distractions like the boys.

Conceptual Framework: Education is a form of investment in human capital that yields economic benefits and contributes to a country's future wealth by increasing the productivity capacity of its people (Woodhall, 2004). Retaining the girl child in school is very important because they will be able to be better leaders, workers and mothers. For these to be achieved the government came up with an intervention by providing sanitary pads to reduce absenteeism and dropout. Therefore, the conceptual framework was based on the concept of investment choices advanced by Psacharopolous and Woodhall (1985). Thus the study adapted the concept to make it suitable for this study. Creswell, (2002) states that where there is no appropriate theory a conceptual framework can be developed based on the available data that presupposes the relationships and consequently a conceptual framework was formulated. The independent variable was provision of sanitary pads while the dependent variable is retention in school.

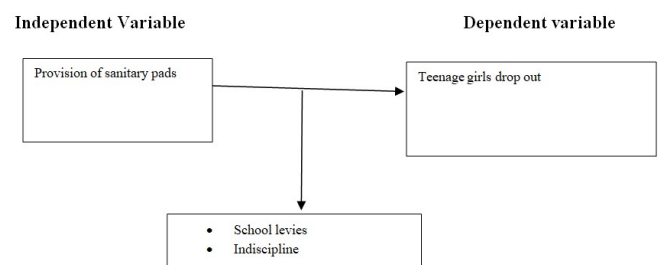


Figure 1. Conceptual Framework showing the sanitary pad as an independent variable and teenage girls drop out as dependent variable in Ainamoi Sub-County, Kericho County, Kenya

This conceptual framework helped to focus on independent variables and dependent variables. The independent variable was sanitary pads while drop out of teenage girls was dependent variable. The students before provision of sanitary towels were used as a control group. The other group used was after provision of sanitary towels. The girl child drop out was done before and after provision of sanitary towels.

RESEARCH METHODOLOGY

Ex post facto, descriptive survey and comparative research designs were used in this study. *Ex post facto* research design seeks to discover possible causes of behaviour, which has already occurred and cannot be manipulated (Gall, Gall & Borg, 2007). For the purpose of this study *ex-post facto* research design allowed the researcher to get all the relevant information on drop out among the primary girls in class eight before and after provision of sanitarypads in Kericho County. This was done through use of relevant documents likeschool registers. Comparative Research design was also used. Qualitative data was collected using open ended questionnaire. The study was done in Kericho County. It is situated in the southern part of the Rift Valley province. It lies between longitude 35°E and 35°50'E and latitude 0° and 0°30'S. It borders the following counties; Nandi to the North, UasinGishu and Baringo to the North East, Nakuru to the East and South East, Bomet to the south, Nyamira and Homa-Bay to the South West and Kisumu County to the West and North West. It covers an area of 2,479km²; the capital of the County is Kericho town. Kericho County consists of five sub counties Ainamoi, Belgut, Bureti, Londiani and Kipkelion. The study was conducted in Ainamoi sub-county. Liston (2006) indicated that 45.22% people were poor in the County while for Ainamoi sub-county the poverty index was 42.8% as stated by the Kericho strategic plan (2010). The Study population consisted of 686 teenage girls, 99 head teachers. The sample size was 20 head teachers and 140 teenage girls. Interview schedule, Questionnaire and document analysis guide was used in this study. Documents used were class registers. The open ended questionnaire was administered to each school head teachers from the selected 20 schools. Open ended questionnaires were important in this study because they are widely used frequently in the descriptive research because they obtain facts about current conditions and are useful in making inquiries concerning their views and opinions (Mugenda & Mugenda, 2003). This was adapted in this research, the head teachers questionnaires was given to the sampled school head teachers. A document analysis guide was used to assist the researcher examine the relevant documents and the get the relevant information. Documents used were the class registers from the 20 primary schools in Kericho County Kenya. Closed ended questionnaire was administered to the girls. The instruments that were validated were questionnaire, and Document Analysis Guide. Validity of a measurement instrument is the extent to which the instrument measures what it is supposed to measure. Reliability of a measurement instrument is the extent to which it yields consistent results when the characteristic being measured has not changed. Like validity, reliability takes different forms in different situations (Leedy & Ormrod, 2005). The instrument was used whereby the instruments were administered to the same respondent twice at an interval of two weeks in 5(10%) of the girls was used and Pearson product moment correlation coefficients was used to compute the correlation coefficient. The correlation coefficient was 0.8 at a set p-value of 0.05. This means the instrument was reliable as the calculated coefficient was greater than 0.7. Two weeks were found to be standard for these instruments to piloted again (Mugenda & Mugenda, 2003).

PEARSON CORRELATION COEFFICIENCY

Correlation coefficients (r) were therefore interpreted to determine the influence of provision of sanitary pads on the dependent variables in terms of direction and strength of relationship Elfison, Runyon and Haber (1990) interpretation guideline was adopted (Table 1).

Table 1. Interpretation of Pearson Correlation Coefficients (r)

Strength of the relationship	Positive (+)	Negative (-)
Weak/low/small	0.01 – 0.30	0.01 – 0.30
Moderate/ medium	0.31 – 0.70	0.31 – 0.70
Strong/high	0.71 – 0.99	0.71 – 0.99
Perfect relationship	1.00	1.00
No relationship	0.00	0.00

From Table one (1) it can be observed that Pearson (r) between + or - 0.01 – 0.30 is a weak/low/small relationship, between + or - 0.31 – 0.70 is a moderate/medium, while relationship between + or - 0.71 – 0.99 is a strong/high relationship. Perfect relationship is where it is positive or negative 1.00 while 0.00 means there is no relationship. Coefficient of determination R² is the square of the Pearson r which tells how much of the variance is accounted for by the correlation which is expressed in percentages while the other remaining percentage could be due to other factors (Leedy & Ormrod, 2005). This was adopted in the interpretation of Pearson (r) and coefficient of determination R² in this study.

COMPUTATION OF DROPOUT RATE FOR THE TEENAGE GIRLS

Promotion Rate by Grade (PR): According to UNESCO (2009 b) promotion rate is the proportion of pupils from a cohort enrolled in a given grade a given school year who study in the next grade in the following school year.

$$PR_i^t = \frac{NE_{i+1}^{t+1}}{E_i^t}$$

PR_i^t Promotion Rate at Grade i in school year t.
 NE_{i+1}^{t+1} New entrants to grade i+1 in school year t+1
 E_i^t Number of pupils enrolled in grade i in the school year t

To get the promotion rate we divide the number of new enrolments in a given grade in school year t+1 by the number of pupils from the same cohort enrolled in the preceding grade in the previous school year t. The rate should approach 100%; a high rate reflects high internal efficiency of the education system (UNESCO, 2009b). This was applicable in this study in getting dropout rate in percentages. Cumulative cohort dropout rate in Kericho County was computed by using UNESCO (2009 b) formula. That is, cumulative dropout rate in education is calculated by subtracting the survival rate plus repeater rate from 100 at a given level. Survival rate is calculated on the basis of the reconstructed cohort method which uses data on enrolment and repeaters for consecutive years (UNESCO, 2009 b). This was computed to determine the actual cumulative cohort dropout rate inAinamoi sub-County, Kericho County after provision of sanitary pads. From the register a cohort of girls from when they were in class six was followed until they completed class 8. The survival rate was computed using the following formula given by (UNESCO, 2009 b) guideline was then adopted.

$$SR_{g,i}^k = \frac{\sum_{t=1}^m P_{g,i}^t}{E_g^k} * 100$$

where: P_{g,i}^t
 = E_{g,i+1}^{t+1} - R_{g,i+1}^{t+1}
 igrade (1,2,3.....n)
 tyear (1,2,3.....m)
 gpupil cohort
 SR_{g,i}^k Survival Rate of pupil-cohort g at grade i for a reference year k
 E_g^k Total number of pupils belonging to a cohort g at a reference year k
 P_{g,i}^t Promoters from E_g^k who would join successive grades i throughout successive years t
 R_i^t Number of pupils repeating grade i in school year t

Cumulative dropout rate was computed as follows

$$Cumulative\ dropout\ rate = 100 - (SR_{g,i}^k + R_{g,i+1}^{t+1})$$

$$SR_{g,i}^k = \frac{\sum_{t=1}^m P_{g,i}^t}{E_g^k} * 100$$

Where: P_{g,i}^t = E_{g,i+1}^{t+1} - R_{g,i+1}^{t+1}

Pearson Correlation (r) was then done to determine the influence sanitary pads on teenage girls' dropout rate in Ainamoi Sub- County, Kericho County.

RESEARCH FINDINGS

Return Rate of the Questionnaire: The respondents in this study included primary school head teachers and class (8) eight girls' prefects. The return rate of principals' questionnaire was as shown in Table 2. From Table 2 it can be observed that all school head teachers returned the questionnaire as was required. The girls' questionnaire was also returned. The rate of return for the questionnaires was 100%. This data on return rates helps to justify the validity of the data that was used in this study and the new knowledge generated.

Table 2. Return Rate of the head teachers Questionnaire used for Data Collection (n=20)

Respondents	Issued	Number Returned	Percentage (%)
Head teachers	20	20	100
Prefects	20	20	100
Totals	40	40	100

Demographic Characteristics of the Respondents: The respondents in this study included primary school head teachers and class eight girls' prefects. Their demographic characteristics were as shown in Tables.

Table 3. Head teachers Gender and Headship Experience (n=20)

Demographic characteristics	Frequency (f)	Percentage (%)
Gender		
Male	12	60
Female	8	40
Total	20	100
Headship Experience in years		
5	1	5
6-10	5	25
11-15	9	45
16-20	5	25
Total	20	100.00

Table 3 indicates that out of all the 20 (100%) school head teachers involved in the study 12 (60%) were male while 8 (40%) were female. This shows fewer female teachers are as appointed school head teachers in Ainamoi sub county, Kericho County. This is in agreement with the study carried out in a sampled number of schools in Kenya by Bosire *et al* (2009) where it was indicated that out of the 30 sampled school Principals 22(79%) were male while 6 (21%) were female. The school principals' leadership experience was also indicated and one (5%) had headship experience between 5 years, 5 (25%) had an experience of 6-10years, 9 (45%) has an experience of 11-15 years while 5 (25 %) had an experience of 16-20 years. From the findings in Table 3, most school head teachers had headship experience of 6 years and above. This shows that they had enough experience in school management and they were able to give the relevant information on influence of provision of sanitary pads on girls' dropout rate in school. They were also better placed given that the data required dated back to the year 2012 that required experience in school administration.

Table 4. Dropout rate before and after provision of sanitary pads (n=20)

	Before provision of sanitary pads		After provision of sanitary pads	
	Frequency (f)	Percentages (%)	Frequency (f)	Percentages (%)
Drop outs	55	10.28	37	5.39
Enrolment	535	100	686	100

Table 4 indicates the girls' dropout rate before and after the provision of sanitary pads in 2011. Before the sanitary pads were provided the girls who stayed were 55 (10.28%) while after the number reduced to 37(5.39).

Table 5. Cost incurred by the government per school in Ainamoi Sub-County, Kericho County (n=20)

Costs of sanitary pads Kenya Shillings (KSH)	Schools	
	Frequency (f)	Percentage (%)
501-1000	2	10
1001-1500	9	45
1501-2000	4	20
2001-2500	3	15
2501-3000	2	10
Total	20	100

Table 6. Pearson Product Moment Correlation (r) sanitary pads and Dropout Rate among the girls in Ainamoi Sub County (n=20)

		Funds	Absenteeism rates
Funds	Pearson Correlation	1	.496*
	Sig. (2-tailed)		.026
	N	20	20
Dropout Rate	Pearson Correlation	.496*	1
	Sig. (2-tailed)	.026	
	N	20	20

** . Correlation is significant at the 0.05 level (2-tailed).

Table 5 indicates the cost incurred by the government per school for all the class 8 girls' that were used for the study. The cost per packet used was KSH50 as given by school head teachers. The costs were multiplied by the number of girls to get the total cost incurred by the government per school. The cost were high for schools with more girls. The schools that the government used between 501 to 1000 were 2(10%), between 1001 to 1500 were 9(45%) for a range of 1501 to 2000 were 4(20%). While between 2001 to 2500 and 2501 and 3000 were 3(15%) and 2(10%) respectively. The finding in table 4 on dropout rate and the costs incurred per school in Table 5 were correlated using Pearson Product Moment Correlation to get the effect of sanitary pads on dropout rate. The correlation matrix is presented in Table 6. Table 6 indicates that there is a positive moderate significant relationship with a coefficient of 0.496 between the amounts incurred on sanitary pads and dropout rates. According to Elfison, Runyon and Haber (1990); Leedy and Ormrod (2005) guideline Correlation coefficients (r) interpretation. Coefficient of determination R^2 is the square of the Pearson's r which tells how much of the variance is accounted for by the correlation which is expressed in percentages (Leedy&Ormrod, 2005). To account for the effect of sanitary pads on drop out Pearson's r was squared. The coefficient of determination $R^2 = 0.246$ which meant that sanitary pads influenced dropout rate. It accounted for 24.60% of the variation in dropout rate.

DISCUSSION

The findings above indicates that lack of sanitary pads plays a big role in teenage girls' education in Ainamoi sub county, Kericho County. Sanitary pads provision in families is a challenge because of economic implication and poverty plays a big role. This findings concur with the study done in India by Krishnan, M (2022) of New Delhi European Union found that millions of girls in India are missing out on school due to stigma over periods and a lack of sanitary facilities. Menstruation taboos are forcing girls out of school In India hence dropping out. It also concur with a study done in Pakistan by Wasan Y *at el* (2022), on the practices and predictors of menstrual hygiene management material use among adolescent and young women in rural Pakistan. This affect girls' sense of self-esteem and agency. From an economic perspective, there can be reduced per capita earning potential, as monthly absenteeism can lead to poor performance and negatively impacts education success. Leading to dropout eventually. Similarly with World Bank (2016) reported that globally, periods are causing girls to be absent from school. It is also in agreement with the study done by Mc Cammon E *at el* (2020) on exploring young women's menstruation-related challenges in Uttar Pradesh, India, using the socio-ecological framework, established that menarche is associated with higher rates of school dropout among

young women. This is an indication that in India women have almost similar characteristics like Kenya. This also concurs with the study by Sommer (2009) which states that there is an increase in girl dropout rates around menarche because menarche marks the Transition to womanhood. This is also in agreement with studies done by UNESCO (2010) which established that around 15 to 20 percent of Roma children in Bulgaria and 30 percent in Romania do not continue in school post Grade 4 in primary school. It was also noted that poor indigenous girls in Guatemala are far more likely to drop out than non-poor, non-indigenous girls. With the girls being left out from education is due to poverty. This is also in agreement with the study done in Uttar Pradesh, India by McCammon E *at el* (2020) on exploring young women's menstruation-related challenges. According to the study School dropout can be attribute to multiple factors, including social pressure to marry and bear children with the onset of menses and the difficulties of managing menstruation at school.

This findings does not concur with the study done by Austrian, K, Kangwana, B & Muthengi, E (2020) in Kilifi County on the Effects of sanitary pad distribution and reproductive health education on primary school attendance and reproductive health knowledge and attitudes in Kenya. Which revealed that that neither sanitary pad distribution nor Reproductive Health education, on their own or together, were sufficient to improve primary school attendance. With this study sanitary pads reduced dropout rate in Kericho County hence improving on attendance. The one done in Kisumu by Jewitt and Ryley (2014) a qualitative study done on teachers and students in Kisumu district by Jewitt and Ryley (2014), on it's a girl thing revealed that menstruation cycle affects girls' attendance and concertation which does concur with this study. A study done by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya revealed that Low self-esteem due to menstrual circles largely mentioned as affecting the girl child because of sanitary towels hence leading to their drop out. During the interview and focus group discussion it was revealed that provision of the sanitary pads did not necessarily lead to drop out. There are other factors that came out clearly that could be affecting the girls. The following were the factors that were mentioned. Boy/girl relationship was mentioned as one of the factor that influence drop out this was because the girls engage in these relationships. This has affected the girls' education because some get pregnant in the process. With pregnancy most of these girls feel embarrassed and hence drop out of school. Pregnancies were also mentioned by the Head teachers and girls during focus group discussion and interview. This finding concurs with that done by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya revealed that relations contributed to drop out rates among the girls. This is because in the process the girls gets pregnant and dropout.

Early marriages were mentioned as the factors that affect the girls especially after the go through Female genital Mutilation (FGM). This is in agreement with the study done by Mackatiani, C *at el* (2022) on Transition in education it focus on Perspectives on Girls' drop-out rates in secondary schools in Kenya. It revealed that early marriages is one of the factors contributing to girls' drop-out rate by 46.6 percent. It also concurs with the study in India by Mc Cammon E *at el* (2020) on exploring young women's menstruation-related challenges in Uttar Pradesh, India. It revealed that School dropout can be due to multiple factors, including social pressure to marry and bear children with the onset of menses and the difficulties of managing menstruation at school. This also concurs with the study by Sommer (2009) which states that there is an increase in girl dropout rates around menarche because menarche marks the Transition to womanhood. It further reveal that there is a possibility getting married. It is also a very uncomfortable time for the girls. It also concurs with the study done by Ngeno, V (2015) which revealed that Early Marriages contributed to drop out rates among the girls in Kericho County. Female Genital Mutilation (FGM) was another factor that has led to drop among teenage girls in Ainamoi Sub County, Kericho County. Though it has been stated illegal in the country some people still practice. Andiema, N (2022) did a study on School and Pupils Based Factors Influencing

Girls' Dropout Rate in Primary Schools in West Pokot, Kenya. This study established that school based and pupils-based factors influenced girls' dropout rate in the zone. Moreover, issues of teenage pregnancy, poor performance, poverty, sexual harassment and families believe and attitude contributed to increased cases of girls' dropout in schools. This is also in agreement with the study done in Kericho County by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya which revealed that Female Genital Mutilation (FGM) contributed to drop out rates among the girls. Poverty was also mentioned by the girls and head teachers during focused group discussion and interview that has led to drop out of girls in primary schools. Some of these girls drop out to work to help their families financial. In fact one of the girls mentioned that, "some of the girls come to school hungry and complaining about the rest of the family having not eaten. Hence, they are forced to look for employment to support the family". This findings concur with the study by done by Mackatiani, C *at el* (2022) on Transition in education Perspectives on Girls' drop-out rates in secondary schools in Kenya. It revealed parental economic status, among other factors contributed to girls' drop-out rate by 46.6 percent. Teenage pregnancies was also mentioned this was mentioned clearly during interviews and focus group discussions. It was clear that some girls drop out because of teenage pregnancies other than lack of sanitary pads in Ainamoi sub county, Kericho County. This concurs with the study done by Andiema, N (2022) in West Pokot Primary schools established that that school based and pupils-based factors influenced girls' dropout rate in the zone. It further revealed that issues of teenage pregnancy was contributing to drop out. This also concurs with the study by Sommer (2009) which states that there is an increase in girl dropout rates around menarche because menarche marks the Transition to womanhood, and chances of girls becoming pregnant are high. This study concurs with the study done by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya which revealed Teenage pregnancies contributed to drop out rates among the girls in the county. Attitude towards Education was also mention during focus group discussion and interview as one of the contributors of drop out. This is in agreement with the study done in west Pokot by Andiema, N (2022) where it revealed that attitude contributed to increased cases of girls' dropout in schools. This was among the school based and home based factors. Peer influence also was mentioned as a factor that contribute to school dropout among the girls. The girls and the head teachers mentioned that this girls are affected by peer pressure from girls who are not in school to dropout. This is in agreement with the study done by Ngeno, V (2015) on the influence of Free Secondary Education policy on dropout rate in Kericho County, Kenya which revealed peer influence leads to the girls dropping out from school.

CONCLUSION

This study concluded there was a moderate relationship between girls drop out and provision of sanitary pads. The Pearson product moment correlation coefficients was 0.496 which account for 24.60% of the variation. The study concluded that it has reduced dropout rate in Ainamoi sub-county, Kericho County.

RECOMMENDATION

This study recommend that sanitary pads be provided in primary schools so that teenage girls can stay in school and hence reduce drop out. Mentoring of girls school also been done to help them understand the other factors leading to drop out.

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