

**FACTORS INFLUENCING SUSTAINABILITY OF SANITARY
FACILITY PROJECTS FOR GIRLS IN PUBLIC PRIMARY SCHOOLS
IN NAKURU TOWN, NAKURU COUNTY, KENYA**

BY

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DECLARATION

This research project is entirely my own original work, and it has not been submitted before in any other university for any award.

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This research project has been submitted for examination with my approval as university supervisor

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DEDICATION

I dedicate this research project to my beloved family members, my parents, my husband Peter Ndirangu, my three incredible children daughters Cynthia Wambui and Cathy Wacu, Agnes Wanjiru and my siblings for giving me space to work on this document. May God bless you all.

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ACRONYMS AND ABBREVIATIONS

- BMJ** : British Medical Journal
- CBO** : Community Based Organisation
- EFA** : Education for All
- HECA** : Healthy Environment for Children Alliance
- MDGs** : Millennium Development Goals
- NGO** : Non Governmental Organizations
- PTA** : Parents Teachers Association
- SHE** : Sustainable Health Enterprises
- UNESCO**: United Nations Education Scientific and Cultural Organization
- UNFPA** : United Nations Population Fund
- UNICEF** : United Nations Children's Education Fund
- WC:** : Water Closet
- WES** : Water and Environmental Sanitation Programme
- WHO** : World Health Organization

ABSTRACT

The study sought investigate the factors influencing the sustainability of sanitary facility projects for girls in public primary schools in Nakuru Town Sub-County Nakuru County, Kenya. A descriptive survey design was used. The study targeted the 59 public primary schools in Nakuru town comprising of 1100 girls, 59 Head teachers and 271 teachers. Simple random sampling was used to select the 18 headmasters, 80 teachers and 330 pupils. The research was guided by the following objectives: To establish the extent to which availability of funds influence sustainability of girls sanitary facilities in public primary schools; To determine the extent to which government policy influence sustainability of sanitary facilities for girls in public primary schools and to establish the extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County Nakuru County, Kenya The Main research instruments used in this study were questionnaires and interviews schedules. Piloting was done in two schools which are not included in the sample for the Validity of the instrument which were determined by checking the response of the respondents against the research objectives. Reliability of the instruments was ensured by the split-half method. The data collected was both qualitative and quantitative. Statistical methods were employed in analyzing quantitative data where frequencies and proportions were used in interpreting the respondent's perception of issues raised in the questionnaires so as to answer the research questions. The researcher used tables in data presentation. The findings of the study indicated that sanitary facilities in all sampled schools were highly inadequate in terms of state and numbers. This was majorly as a result of lack of sustainability which was affected by lack of funds, sanitary knowledge and implementation of a enacted government sanitary policy. The study also indicated that Free Primary Education is a factor that has led to the inadequacy of sanitary facilities. The study recommends that the Ministry of Education should conduct regular monitoring of the cleaning and maintenance of sanitation facilities in public primary schools. Both students and members of staff should be trained on proper use and maintenance of sanitary facilities. It was also recommended that a separate budget is put aside by government and schools to cater for this indispensable service in the schools.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Burrows et al (2005) asserts that millions of young girls in underdeveloped countries worldwide face a far greater problem simply because they cannot afford sanitary protection. Menstruation is universal for women regardless of culture or the circumstances; yet too many adolescents girls are stigmatized as unclean during their menses. This serves as a significant impediment to education because families cannot afford sanitary supplies hence, girls must miss a week of school each month. According to Children's Commission for Wales report (2004) on BMJ products in United Kingdom, 90.1% of the girls could obtain sanitary towels but only from adult teachers. 14% of the schools had a machine in the girls' toilet where sanitary towels could be obtained unobtrusively. Disposal facilities were available within an individual cubical in 43% of the girls' toilets. This means that the sanitary facilities are not adequate for girls in school and should be made accessible

Women and girls need to change their sanitary napkins three or four times a day during the period of menstruation especially in the first three days. The vast majority of women and girls in Bangladesh use rags- usually torn from old saris, known as 'nekra' instead of sanitary towels/napkin. Rags are washed and used several times. There is no private place to change and clean the rags and often no safe water and soap to wash them properly. A culture of shame and embarrassment forces them to seek for well hidden places even in their homes to dry the rags. These places are often damp, dark and unhealthy. This practice is responsible for a significant proportion of illness and infection associated with female reproductive health. Rags that are unclean cause urinary and vaginal infection. Very often serious infections are left untreated. This is the common picture in urban slum and rural Bangladesh. Recognizing the unfriendly environment the girl has to face during her menstrual period; development agencies in Bangladesh have been gradually addressing the situation in diverse ways.

In Africa, the Dakar Recommendation recognized (WSSCC Global Wash Forum December 2004 held in Dakar) that "Primary school children of today will be the adults of 2015. Therefore, national and sectoral policies and budgets must prioritize School Sanitation Hygiene Education in terms of the need of hardware and software.

If all schools are to have safe water, sanitation, and hygiene education by 2015, current best practices must scale up rapidly, applying principles of sustainability, decentralization, participation, partnership and policies.” However, most of the hygiene education packages exclude menstrual hygiene. Even most of the school sanitation programs do not address menstrual management in latrine design and construction. Across the developing world, the lack of appropriate and adequate sanitation facilities prevent girls from attending school, particularly when they are menstruating. There is evidence to show that girls’ attendance increases once hygiene, water-sanitation facilities are available.

About one out of ten school age African girls do not go to school, UNICEF (2005). This is because of lack of the required sanitary facilities which include clean water, toilets, sanitary towels and sanitary disposal bins. These girls might opt to stay home until the end of the menstruation period which takes three to six days in every month. In Southern Sudan, refugees and IDPs may not afford the cost of commercially produced sanitary pads or rags and even sometimes homemade materials. President Jacob Zuma of South African also acknowledged the need for pads in schools with a proposal that free sanitary towels should be provided to school girls. Steps have been taken to address the need for pads although details of the provision remain unclear.

Since September 2002 the Bureau of Health (BoH) of the Southern Nations, Nationalities and Peoples Region (SNNPR) trialled a new approach to basic health care . The approach focuses on a small number of ‘broad-based, low-cost and high-impact’ public health interventions aimed at improving the basic health status in the region. The approach was ‘household-centred’, reaching households via community health promoters (CHPs) and health extension workers (HEWs). An important element of the approach was the construction of basic latrines and hygiene promotion. This was aimed at reducing incidences of bacterial diseases caused by direct contact with human faeces, for instance through non-washing of hands after toileting, and related water-borne diseases. Within four years, the SNNPR BoH reported substantial percentage increases in latrine coverage.

The efforts of the BoH from 2003 onwards, without major donor assistance programmes, have attracted considerable attention in Ethiopia and beyond, as they were reported as an important sanitation success story (WSP, 2007). Thus, the

SNNPR case represents an interesting case study as improvement in hygiene and sanitation remained a low policy priority for many developing countries. Accordingly, the BoH sought the services of 'RiPPLE' to examine the policy and institutional factors that contribute to (or militate against) the success of the sanitation and hygiene (S&H) approach adopted by BoH in SNNPR from late 2002 onwards (called below the 'post-2003' approach).

In East Africa a new exciting project combines sustainable enterprise employment and education to address the lack of affordable and environmental friendly sanitary care. Unimpressed by the results, Elizabeth Scharpf has set up in Rwanda what she hopes will be an eco-system for the local economy to tackle women's sanitary needs once and for all (Jenara, 2010). Elizabeth Scharpf, founder of Sustainable Health Enterprises (SHE), is partnering with networks of women in Rwanda to make and sell sanitary pads made from banana leaves. Eighteen percent of girls in Rwanda miss, on average, 35 days of school every year (and up to 50 days of school or work each year) due to their periods, ineffective pads, the embarrassment and ridicule that result. Scharpf told Fast Company that Menstruation is one of those things that people don't really want to have anything to do with and that Most of the population is left hanging after donation supplies run out. In all, Scharpf expects to reach a million women with the SHE 28 program. What Scharpf and her team found was that a lack of sanitary pads was not the only issue there was a serious lack of information and education on health and hygiene in general.

Article (30) of the Constitution of the Republic of Uganda provides for education of Ugandan children as a human right. The Ministry of Education and Sports (MoES) in collaboration with major partners and other stakeholders has been implementing a school sanitation and hygiene projects as part of its efforts to ensure that quality education for boys and girls becomes a reality through the Universal Primary Education (UPE) policy. However the introduction of UPE resulted in a rapid increase in the number of children in the primary schools from 5.3 million in 1997 to 7.3 million in 2002; a trend that has continued in subsequent years, straining hygiene and sanitation facilities in schools, with consequent low standards of sanitation and hygiene in many primary schools all over the country. Water, sanitation and hygiene have the potential to prevent at least 9.1% of the global disease burden and 6.3% of all deaths (Prüss-Üstün et al,2008). According to the World Health Organization and

UNICEF, improved sanitation could save the lives of 1.5 million children per year who would otherwise succumb to diarrheal diseases (WHO and UNICEF, 2008). Improved water sources reduce diarrhoea morbidity by 21%; improved sanitation reduces diarrhea morbidity by 37.5%; and the simple act of washing hands at critical times can reduce the number of diarrheal cases by as much as 37%. In most schools, girls are faced with poor facilities, inadequate water for washing, lack of soap, no privacy and non-functioning or insufficient toilets. This reduces school attendance.

A UNICEF report in Kenya stated that one in ten school-age girls do not attend school during their period and in Uganda, according to the case study that involved 300 primary school girls, the findings showed that 94% of the girls had some problems at school during menstruation. Three out of five girls (61%) reported staying away from school. To improve the situation, 94% of the girls mentioned that they need to be taught the correct facts about menstruation and educate the boys. Four out of five said that more facilities are needed for girls and that the facilities should be kept clean (IRC 2006)

In an article by Gacheiya, R.M & Mutua, B.M. (2008) on Implementation of urine-diversion dry toilets in schools in Nakuru, Kenya, Schools have been chosen as institutions for constructing ROSA pilot units. Schools have been identified as good invention points for introducing sanitation systems. A huge number of persons can be reached as a big number of students are using the toilets in the school and further students bring the news about their new school sanitation system home to their families. On the other hand, there is a huge lack of sanitation facilities in schools and it has been reported that lack of toilets disadvantages girls. In the case where the school has no toilets, girls do not attend school during their menstruation periods resulting in a loss of weeks attending school and finally, less success in school.

1.2 Statement of the Problem

The girls are disadvantaged owing to various factors like cultural practices that favour the education of boys to that of girls, such as early marriages, childbearing, and attending to parental responsibilities. Extreme poverty also plays a role (Institute of Economic Affairs 2008). Studies have shown that most aspects of a girl's life are affected by lack of sanitary facilities to allow smooth and uninterrupted studies, thus

lowering the girls esteem and confidence. As a result, this hinders the girls' participation in primary education.(Gacheiya, 2008)

The sustenance of sanitary facility projects largely depend on the ability of the schools management to do so. Their knowledge and skill on sanitation plays a vital role to mitigating such issues of proficiency and avoidance of wastages of the available sanitary facilities. School administrators have always complained of lack of funding to facilitate sustenance and provision of proper sanitary facilities in schools. Thus, this study sought to ascertain the factors that influence sustainability of sanitary facilities in primary schools in Nakuru town sub-County.

1.3 Purpose of the Study

The purpose of the study was to investigate the factors influencing the sustainability of sanitary facility projects for girls in public primary schools in Nakuru Town Sub-County Nakuru County, Kenya.

1.4 Objectives of the Study

This study was guided by the following objectives:

- i) To establish the extent to which availability of funds influence sustainability of girls sanitary facilities in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya.
- ii) To determine the extent to which government policy influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya.
- iii) To establish the extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya.

1.5 Research Questions

The study sought answers to the following questions.

- i) To what extent does availability of funds influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya?

- ii) To what extent does Government policy influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya?
- iii) To what extent does sanitary awareness influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya?

1.6 Significance of the Study

This study would be of great importance both at macro and micro level of education sector. At the macro level, informed decisions in policy making on sanitary facilities to improve girl's participation in education basing on the findings from the research. At the micro level, the local community leaders may adopt the recommendations put forth and use the findings to address issues in the report. The researcher would also help other researchers and academicians to increase on available literature for further studies

1.7 Delimitation of the Study

The study focused on the factors influencing the provision and sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County .It will also explore the awareness of sanitation, funding and government policy influencing this sustainability. The pupils in class 6-8, their teachers and head of schools will be interviewed.

1.8 Limitation of Study

During the study, some girls were not willing to answer the questionnaires or interviews fearing it would expose their private issues like menstruation. The researcher however assured the respondents that the information they gave would be private and no disclosure will be done. The respondents were not required to write their names on the instruments hence ensuring anonymity. Nakuru is generally a densely populated area. The Target population for the study is hence vast. This may pose a challenge to the researcher on Research design, sample size and procedure to be used. The researcher used descriptive survey research design so as to manage the vast Population

1.9 Assumptions of the Study

The study was based on the assumptions that the respondents will be honest in their responses and that all the class 6 to 8 Girls in primary school understand their biological developments and sanitary needs.

1.10 Definition of Significant Terms

Adequacy of Sanitary facilities Facilities like toilets, pads, washrooms and disposal bins being available, enough and in good state.

Awareness It is the state or quality of being aware of something. In biological psychology, awareness is defined as a human's or an animal's perception and cognitive reaction to a condition or event.

Funds Refers to financial resources used in the acquisition and distribution of sanitary towels.

Girls Female from the age of 11-15 years

Government policy Government actions designed to affect economic activity and pursue one or more economic goals. Also called economic policies

Menarche Is the first menstrual cycle, or first menstrual bleeding, in female humans. From both social and medical perspectives it is often considered the central event of female puberty, as it signals the possibility of fertility

Participation Taking part in school activities e.g. Class work, attendance, co-curricular activities like games and athletics, Clubs and societies.

Sanitary facilities This refers to Toilets/Latrines, Wash rooms, water, Pads and Disposal Bins

Sustainability The provision of sanitary facilities for a long period while still maintain the quality

1.11 Organisation of the Study

This study is organised in five chapters. Chapter one discussed the background to the study, the problem statement, purpose of the study ,the objectives and research questions, the delimitations and limitations to the study as well as the list of operational definition of terms. Chapter two reviewed related literature on sanitary faculties' provision in public primary schools inline with the study objectives. The theoretical and conceptual frameworks of the study are also elaborated. Chapter three presented the research methodology highlighting the area of study, study population, research design, sample size and sample size determination, the instruments to be used, data collection procedures, analysis and presentations as well as some ethical considerations. Chapter four presented the data analysis and findings and finally, chapter five presented the conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter entails the review of the related literature on sanitary facilities for girls in primary schools.

2.2 Availability of Funds and Sustainability of Girls Sanitary Facilities

Constant strikes by school teachers in Kenya in demand for improved working conditions and pay have yielded less if no fruits .The government still insist that there is no fund to not only enumerate the teachers well but also improved the school infrastructure including sanitary facilities. The perception of parents of free primary education has also deterred their participation in funding school projects and infrastructure development. This is evident in Nakuru sub-county. This is in agreement with World Bank (2002) where African countries were urged to consider the idea of cost sharing instead of fully relying on public expenditure in financing education and school resources . It further observed that in many African countries most of the money allocated to education is spent on teachers' salaries with little regard to equipment, maintenance of physical facilities and development.

(Kirk, 2005), Few girls in Southern Sudan are able to buy or even make their own sanitary pads and so those who are enrolled in school are usually forced to miss class during menstruation and hindered from participating in any other joint activity .Girls in boarding schools normally stay in their dormitories, lying out their period and taking regular showers. Those in day school merely stay home. This means that girls miss a number of days of school every month and are disadvantaged in their learning. To address this issue, the Sudan Basic Education Program distributes 'comfort kits', containing a set of reusable cotton sanitary pads and underwear, to girls in secondary schools and women in teacher training institutions. The aim is to impact on girls' attendance and ultimately completion of school. The comfort kits were also designed to help make girls feel clean and confident in school even during their menstrual period.

The comfort kits have been enthusiastically received by girls and the kits appear to be a very practical solution to a serious gender equity issue. An early impact assessment indicates the significant impact these kits have on girls' attendance and on their levels

of confidence and participation in class. Girls are encouraged that they no longer have to struggle alone to cope with the management of menstruation (Kirk, 2005). Furthermore, the open distribution of the kits in school has raised awareness amongst teachers and school administrators and made it much more possible for girls to talk about menstruation at school and get involved in every activity without Hindrances. Assessment also revealed that few girls really understood the biological process of menstruation. The SBEP has now developed a simple booklet explaining menstruation and other bodily changes associated with puberty to include in future comfort kit distribution.

Comfort kit distribution also raises a number of conceptual and programming challenges and questions for further consideration and impact analysis. For example, as indicated above, many of the schools included in the program do not have toilets and washing facilities and many girls lack soap. This means that even if girls receive washable sanitary towels, they may have to walk a long distance to look for water, and then struggle to do their laundry without soap and buckets. Most girls who want to go to school have to raise their own fees or part of the fees including pocket money for such necessities. The need for such items puts girls at risk of sexual abuse and exploitation as they are tempted into transactional sex. This makes it paramount to adopt a more holistic and long-term approach to addressing the needs of girls, and to work with the schools, communities and other organizations to provide other necessary facilities such as water, basins or buckets and soap. Plans are now being made to provide instructions for girls to make own sanitary pads from locally available materials to replace those provided and also to encourage sisters, mothers and other women in the community to do the same. (UNICEF 2009).

Water and sanitary facilities in schools are increasingly recognized as fundamental for promoting good hygiene, behaviour and children's well-being. UNICEF (2009), states that many schools have very poor sanitation facilities, which are mostly inappropriate and inadequate. This contributes to absentees and high dropout rates for girls. Global grassroots (2011), states that a safe and clean school environment will help girls excel in schools. It was also discovered that in most schools there are only unisex latrines where girls are not only embarrassed to use them, but are also targets of sexual assault leading to poor performance and drop-outs.

National guidelines are needed to provide a sanitary facility in learning environments. One in eight girls reach the menarche while still in primary school, hence the need to provide the sanitary pads in primary schools. But the current provision is inadequate. A BSO study in Ghana points out that a number of important issues for policy makers and NGO's in developing countries not least how to fund and implement the programme of sanitary product provision and how to dispose of the pads with minimal environmental impact particularly in rural areas. KESI (2011) encourages both boys and girls to participate equally in co-curricular activities and ensure that the learning environment is gender friendly and hence the educational environment must be safe, healthy and protective. UNICEF (2005) estimates that about 1 in 10 school-age African girls do not attend school during menstruation, or drop out at puberty because of the lack of clean and private sanitation facilities in schools. Few schools have any emergency sanitary supplies for girls, and communal toilet facilities are generally very unsuitable for changing sanitary pads given a lack of water, and of sanitary material disposal systems

One study in Uganda found that 1 in 3 girls missed all or part of a school day during their menstrual cycle (GAPS/ FAWE U 1999). Although data on the topic is scarce, similar patterns are likely to exist elsewhere. The issue of 'latrine safety' demonstrates the complexity of finding solutions, while simultaneously highlighting the importance of community and 'girl-driven' solutions. Recent reports have suggested that girls view latrines as extremely unsafe, given that they are frequently the site of sexual attacks (Human Rights Watch 2003). There is little information available regarding disabled girls' participation in education, and it is generally thought that very few such girls in the developing world attend school at all. Reports from Australia, Mexico and Uganda indicate that inaccessible toilets are a barrier to disabled girls' education.

2.3 Government Policy and Sustainability of Girls Sanitary Facilities

Millennium Development Goal 7 is to ensure environmental sustainability. One of its targets is to have the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015 supported and fostered by something as basic as a girls-only toilet. Parents are more likely to allow their daughters to attend school if they believe that girls' safety and dignity will be protected, and fewer girls will drop

out once they reach adolescence (UNICEF 2005). It is interesting that even the discussions of water and sanitation projects in schools frequently fail to make explicit the issue of menstruation. Rather, there may be vague references to particular impacts of puberty for adolescent girls. Furthermore, such interventions tend to focus on the physical management of menstruation. The overall objective of such initiatives is to enable girls to physically participate in and benefit from education without necessarily being linked to educational interventions to improve body awareness, knowledge and understanding of reproductive health. The increasing recognition of the potential impact of providing separate, private and safe latrines for girls to improve school access, attendance and retention, especially for adolescents is significant. There is an urgent need however for thorough evaluations of existing and newly initiated efforts that address the menstruation and sanitation issue.

2.3.1 Guidelines on the Number of Sanitary Facilities

FAWE (2009) reveals that lack of sanitary pads coupled with other factors like absence of water or separate toilets facilities is responsible for girls' dropout rate in Uganda. Ngaroga (2011) states that pupils experience problems related to growth and such changes may be a source of worry frustration and inactivity. Hence the role of the PTA is to provide physical facilities through self help efforts. According to public health policy (2011), adequate sanitary facilities must be provided as follows:

Table 2. 1: Recommended ratio of sanitary facilities provision

| SEX | NUMBER OF LEARNERS | CLOSET |
|-------|--------------------------|-------------------------------|
| GIRLS | • First 30 girls | • 4 |
| | • For the next 270 girls | • 1 extra every 30 girls |
| | • Every additional girls | • Closet per 50 girls |
| BOYS | • First 30 boys | • 4 fitting |
| | • For the next 270 boys | • 1 fitting for every 30 boys |
| | • Every additional boy | • 1 fitting per 50 boys |

According to WHO (2012) access to sanitary facilities is a fundamental right that safeguards health, humility and dignity. Providing these facilities in schools not only help to meet that right, it also provides the most favourable setting to encourage

behaviour change in schools and community. According to a pilot survey of 14 countries in 1995, primary schools in some of the poorest countries have inadequate sanitary facilities. The average number of users is often higher than 50 students per toilet in city schools.

In Cote d' Ivoire, 62% in rural areas had water and 40% in the capital Abidjan had sanitation in schools only 30% have water and 32% latrines. According to a survey in the Yopougon area, Cote d' Ivoire, 62% of WCs do not work and there are about one WC/toilet per 381 students. (Suggested 1 out of 40 for girls and 1 out of 80 for boys) and one urinal per 892 students (suggested of out 50)

AMREF (2009) discovered that in Kibera , the latrine to a pupil ratio is 1:50 compared with the recommended public health standard of 1:25 for boys, 1:30 for girls. Limited availability of sanitary facilities poses a constant threat of diseases and dropout rate is over 50% by the end of standard six and the academic performance is lower than the average for Nairobi. According to BMJ products in United Kingdom, a research showed that 90.1% of the girls could obtain sanitary towels but only from adult teachers, 14% of the schools had a machine in the girl's toilets where sanitary towels could be obtained unobtrusively. Disposal facilities were available within an individual cubicle in 43% of the girls' toilets.

Burrows (2005) asserts that millions of young girls in underdeveloped countries worldwide face a far greater problem simply because they cannot afford sanitary protection. Menstruation is universal to all women regardless of culture or the circumstances. The monthly menstruation cycle of bleeding and physical renewal makes way for new life and represents as girls passage into womanhood. Yet too many adolescent girls in developing countries, menstruation is stigmatized as unclean and this serves as a significant impediment to education because families cannot afford sanitary supplies hence girls must miss a week of school each month. Menstruation is stigmatizing because even in the advertisements, blue colour is used on sanitary pads to stand for red colour of blood.

Studies funded by the Rockefeller Foundation in Uganda, Kenya and Zimbabwe highlight the challenges to physical management of menstruation in low-income settings. In particular the reports speak to the prevalence of overcrowded and overflowing toilet cubicles currently existing in far too many sub-Saharan African

schools. ‘Beyond being health hazards, they [unsanitary conditions] are symbolic of the failure of the education system to provide essential facilities to ensure that children, especially girls are not excluded from full participation in the system because of their maturing bodies’ (Rockefeller/ QUEST 2003). There are rarely separate cubicles for boys and girls and the cubicles that do exist provide little privacy. Although all three countries have an official guideline of 1 toilet per 30 students, researchers found that this figure was exceeded many times over, with some schools having a ratio of 200 students to 1 toilet. And although schools may have toilets, many are lacking in water and therefore do not meet the basic health and hygiene requirements for educational institutions. (QUEST 2003)

While dirty and insufficient toilet facilities are a serious issue, in many cases there are no toilets at all. According to the School Baseline Assessment of 2002, almost half of existing schools in southern Sudan do not have access to water and only 30% have latrines (UNICEF/AET 2002). When asked what they do when they need the toilet, girls in school replied, ‘You just have to wait until you go home.’ Similarly, in a study conducted in Ethiopia, fewer than half the schools had latrines and only one school had a separate latrine for boys and girls; while in Ghana, only a third of schools had latrines and in many cases these were unfit for use (UNESCO 2003) .

2.4 Awareness of Sanitation and Management for Sanitary Facilities

Walkerline et al. (2001).a worker with the Catholic Relief Services (CRS), in collaboration with the National Union of Eritrean Women (NUEW), found that many Eritrean schoolgirls either miss school entirely or feel uncomfortable at school during their menstrual cycle, and hence report a decrease in their participation and performance in the classroom. To address this challenge, CRS initiated a girls’ empowerment project aimed at increasing schoolgirls’ reproductive health and hygiene knowledge, improving girls’ confidence in the classroom through extracurricular tutoring on basic subjects, and facilitating their school attendance during menstruation through the construction of girls’ latrines and the provision of sanitary materials, soap and undergarments. Under the reproductive health awareness objective, the project produced an adolescent reproductive training manual that was used for training-of trainers (TOT) of adolescent peer educators. Weekly TOT workshops were conducted over a seven-month period for selected adolescent girl

educators, who subsequently disseminated the knowledge to their peers. Girls' toilets were rehabilitated in the target schools, with a new girls' latrine currently under construction in one school in collaboration with the parent-teacher association.

As mentioned, there exist only tentative data on the impact of interventions related to improved school sanitation and increased menstrual awareness on the lives and experiences of female students. Comparative and baseline data would help to quantify the influence of such educational, health, environment and sanitation programs as well as improve future initiatives. At the same time, qualitative research is required in order to gain more understandings of the cultural significance of menstruation, of girls' attitudes to and experiences of puberty, and of how the latter are changing over time and with the impact of modernizing influences. Pre-adolescent girls are often an invisible group whose needs and perspectives are marginalized compared to those of younger and older girls. As Vacha Women's Resource Centre, Mumbai has learned, for girls aged roughly 9-13, menstruation is a very relevant issue. These girls are on the verge of menarche while simultaneously coping with the physical and emotional issues of adolescence and entry into the world of adulthood. In order to better meet the needs of girls, we need to hear their stories. By listening to them share their lives, much can be learned about their personal experiences and understanding of menstruation (Shukla and Hora 2004; Vacha 2002). Research is also required to fill the large gaps in awareness of the situation for disabled girls in developing countries.

It is becoming clear that multi-sectored approaches are needed. Addressing menstruation challenges for girls in a strategic way requires more than simply building a toilet or drilling a well. We need to link physical infrastructure and water and sanitation projects to health education and reproductive health programs and address the issue in more holistic ways. Education programs are required for teachers and education authorities, as well as sensitization for parents and wider communities. Such approaches require the experts from health, water and sanitation, and the education sectors to all work together, and to collaborate when possible with local women's organizations, girls' clubs in and out of school, and other grassroots organizations aiming to address persistent gender inequalities in the community and larger society. Solutions, however, should be developed based on the insights of the girls themselves; as Kirk and Garrow (2003) point out, girls are 'knower's of their own lives, of the challenges they face and of possible solutions for these. Participatory

approaches are needed in order to engage with girls and to see the challenges they face from their perspectives.

2.4.1 A Research-action ‘Sexual Maturation Project’ in Uganda (FAWE).

The Forum of African Women Educationalists (FAWE) is a Pan-African NGO in Uganda committed to supporting governments to eradicate the gender gaps in education, at all levels. There are 33 chapters across the African continent, and Uganda is one of the most active and innovative. FAWE Uganda’s work to promote improved sexual maturation management in schools emerges from the linkage between poor attendance, high drop-out and ultimately low levels of literacy. In the ‘Strategic Resource Planning for Girls’ Education in Africa’, a Ministry of Education and FAWE study on Gender and Primary Schooling, puberty was found to underlie deteriorating performance, absenteeism and drop-out in upper Primary School in Uganda. The Pregnancy Study (FAWE 2003) also linked absenteeism, loss of interest in school to puberty.

The major project activities comprised awareness-raising on the biological process of menstruation, and dispelling local myths and mystery surrounding it. Teen clubs have been established in primary schools, and supplied with ‘emergency’ sanitary towels which they give to girls who begin their menstruation at school when they are not prepared. Materials development has also been an important part of the project. These materials comprise posters and booklets aimed at girls themselves with messages relating to good hygiene especially during menstruation, and also posters for teachers and community members which promote positive attitudes towards and understandings of menstruation.

One of the key issues which have emerged from this work is the importance of raising the awareness of boys, community members, and fathers that menstruation is normal and healthy. In this way, boys can learn to be supportive (rather than taunting) to the girls who, for example, by accident soil their dresses. It also has the impact of making fathers more understanding of the sanitary protection needs of their wives and daughters and more likely to provide money for them to buy or make these. Further, FAWEU advocates the inclusion of menstruation and its management as a specific topic in the life skills curriculum and in the activities of the already established ‘life skills clubs’. Experience with these clubs indicates that when boys understand what

menstruation is about, they are more cooperative towards girls. Another crucial component is further sensitization of parents, both men and women on the importance of hygienic protective materials. Teachers, community-based organizations (CBOs) and parents have received training on sexual maturation, which helps girls to overcome negative misconceptions, shyness and avoidance of the topic. This should help parents and guardians to see the necessity of budgeting for sanitary materials. FAWEU is also committed to finding ways of making appropriate sanitary protection available to poor girls, and especially those in rural areas. Locally-made sanitary towels have also been discussed with girls, their teachers and parents. This is important in relation to the girls' health and well-being, but is also seen as having the potential to impact positively on attendance and active school participation. FAWEU has provided some schools with sanitary towels for emergency use for girls, thus enabling them to continue with their studies instead of staying away from school during this period. However this is not sustainable and the challenge there is to bring the parents on board to take up the responsibility (FAWE Uganda, 2004). FAWEU is a well-known and respected organization, a very active participant in the education sector and a technical partner to the Ministry of Education and Sports on gender. The fact that FAWEU has invested time and attention to this issue and is widely disseminating the results of its work helps to situate menstruation as central to educational policy-making and planning for girls' education and for gender equality. Their attention to this issue helps to ensure that it is taken seriously at different levels of the education system, from the classroom to the ministry boardrooms.

2.5 Theoretical Framework

This study will be guided by the by Attribution theory, postulated by Weiner (1986) in illustrating how school manage and sustain the sanitary facilities in school The Attribution theory, postulated by Weiner (1986) focuses on the idea of interpreting causes of events, why people do what they do. The theory is the most influential with implications for academic motivation. It incorporates behaviour modification in the sense that it emphasizes the idea that learners are strongly motivated by pleasant outcome of being able to feel good about themselves. It emphasizes that learners current perceptions strongly influence the ways in which they interpret the success or failure of their current efforts and hence their future tendency to perform.

People tend to explain success or failure as caused by internal or external factors. Cause may be stable or unstable. If the cause is stable then the outcome is likely to be the same. If it is unstable the outcome is likely to be different on another occasion. This means that factors that affects girl's performance and participation should be made stable in this case assuring the adequacy of sanitary facilities. The cause of success or failure may be controllable or uncontrollable. Puberty being a biological phenomenon is uncontrollable but can be managed by provision and sustainability of adequate sanitary facilities.

Weiner concluded that behaviour is attributed to internal and external causes and stability. Thus lack of sanitary facilities among girls affects their learning and performance in schools. This is true considering the fact that attribution theory tend to interpret causes of events .Thus if Sanitary facilities affects learning and performance of girls then, the society should look for ways to improve learning of the affected children and see that the position of the least advantaged in the society is considered with more seriousness.

2.6 Conceptual Framework

Conceptual framework will be used to guide the study. There is a conceptual relationship between the independent variable, intervening and the dependent variable in this case sustainability of sanitary facility projects for girls in primary school indicated by facility usage and maintenance. These factors depend on the funding, Government policy and Knowledge on sanitation

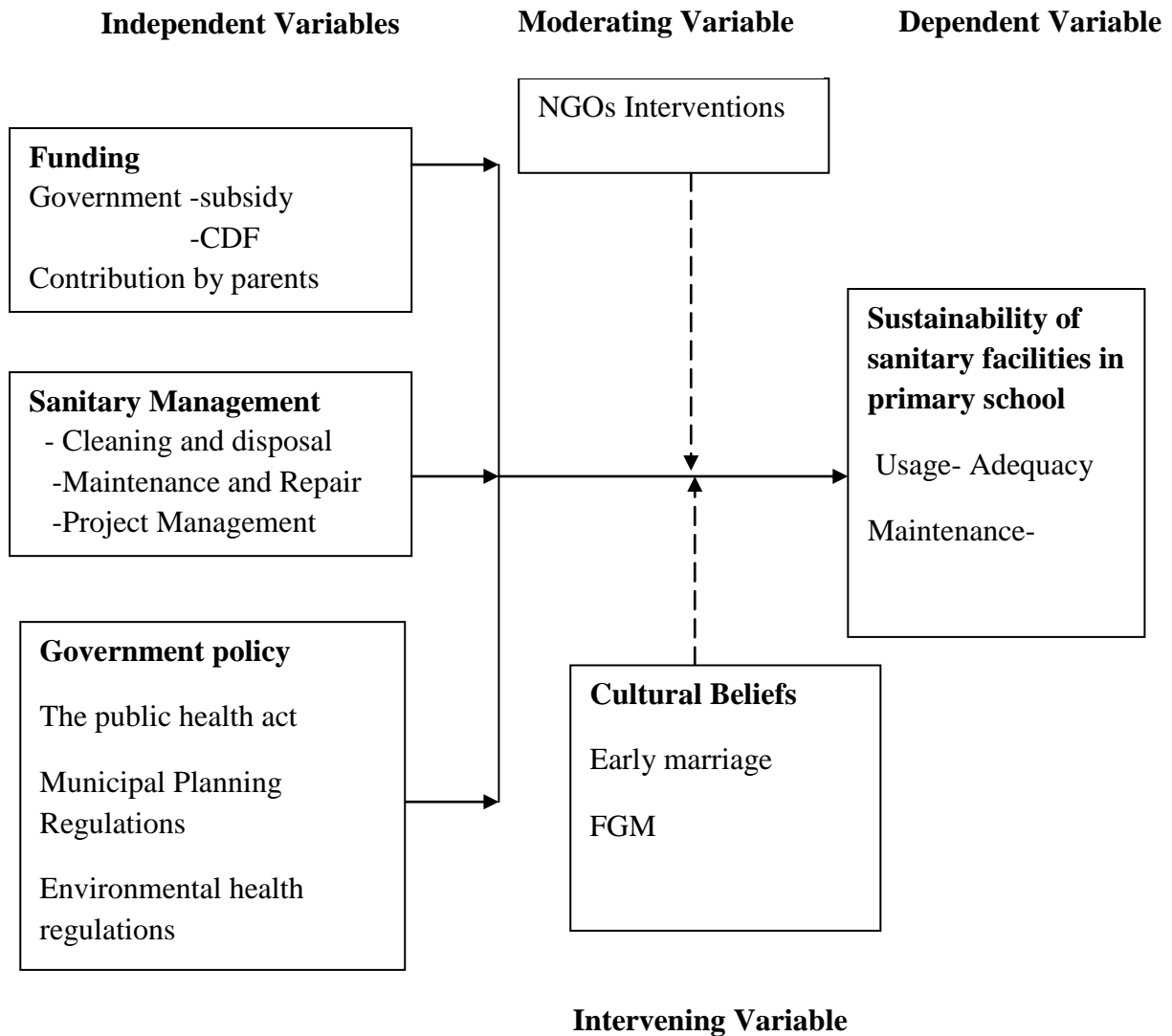


Figure 1: Conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, geographical area where the study was carried out, population and target population, sample size and sampling technique, instruments, Data collection procedure and Data Processing and analyzing.

3.2 Research Design

A descriptive survey design was used in this study. According to Gay (2002) Descriptive research involves collection of data in order to answer questions concerning the current status of the study. This design helped the researcher to adequately establish the factors affecting the provision and sustainability of sanitary facilities for girls in public primary schools in Nakuru town sub-county Nakuru County, Kenya.

3.3 Target Population

The study targeted the 59 primary schools in Nakuru town comprising of 1100 girls in class 6-8, their 271 class teachers and 59 Head teachers. The target for the study were girls from class six to eight (6 to 8).

Table 3.1: Target population

| Population Category | Total |
|---------------------|-------|
| Head Teachers | 59 |
| Teachers | 271 |
| Girls class 6-8 | 1100 |

3.4 Sample Size and Sampling Procedures

Sample size is a small part of the population to be studied and sampling procedure is the process by which samples are selected in a study (Kothari C.R 2007). According to Gay (2003), a sample size of 30% of the total population or less is adequate for a study in descriptive research. Therefore, the study used 30% of the total number of school to get 18 primary schools. Simple random sampling was used to select 18 head teachers, 80 teachers and 330 pupils, out of the total 59 head teachers, 271 teachers and 1100 pupils. Purposive sampling technique was used to select only girls in standard 6 to 8. Sampling means selecting a given number of subjects from a defined

population as representative of that population. Any statement made about the sample should also be true of the population; (Orodho 2002).The schools to be studied were selected using simple random sampling. Simple random sampling is a method that involves giving a number to every, subject or member of accessible population, placing the numbers in a container and then picking any number at random. The subjects corresponding to the number picked were included in the sample. However, purposive sampling was used to select the girls' pupils in class 6-8. The respondent sampling matrix is shown in the table 3.2.

Table 3.2: Respondents Sampling matrix

| Respondent | N(total population) | n(sample size) |
|-------------------------|----------------------------|-----------------------|
| Number of head teachers | 59 | 18 |
| Number of teachers | 271 | 80 |
| Number of pupils | 1100 | 330 |
| Total | 1430 | 428 |

3.5 Instrumentation

The main research instruments used in this study were questionnaires and interview schedules and an observation check list. In developing the questionnaire items, the fixed choice and opened-ended formats of the item will be used. An interview schedule will be used to collect data from the head teachers. For Information not captured by the questionnaire, an interview schedule was used to solicit for more information. The head teachers were interviewed face to face by the researcher on a scheduled program. Teachers and girls were given self administered questionnaires. There were two distinct questionnaires one for pupils and the other for teachers.

3.6 Validity of the Research Instrument

According to (Patton, 2000) validity is equality attributed to preposition or measures of the degree to which they conform to establish knowledge or truth. An attitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the attitude. The researcher sought expert opinion from the university supervisor in order to ensure validity of the instruments., For a research instrument to be considered valid, the content selected and included in the questionnaire must be relevant to the variable being investigated.

3.7 Reliability of the Research Instrument

According to Mugenda and Mugenda (1999), reliability is the degree to which results obtained from analysis of the data actually represent the phenomenon under study. Piloting was done in two schools which were not included in the sample. The results obtained from the pilot study assisted the researcher in revising the questionnaire to make sure that it covers the objectives of the study (Fraenkel & Wallen, 2000). In order to test the reliability of the instruments to be used in the study, the split-half method was used. To determine the coefficient of reliability, Pearson's product moment formula was used. This established the extent to which the questionnaire elicits the same responses every time it is administered. A reliability index (alpha) of 0.65 was realised and considered high enough for the instrument used in the study. (Joppe, 2000).

3.8 Data Collection Procedures.

The Researcher got an introductory letter from the University of Nairobi. The letter was then used to apply for research permit from National Council of Science and Technology. The researcher also wrote a letter seeking permission to carry out research and collect Data to the DEOs Office and sampled school heads. The researcher personally visited the sample schools to administer the questionnaire for which no research assistant was needed. This took place in the second term of the school calendar, in the months of May and June. During the time of administering the instrument, the researcher explained to the head teachers and teachers the importance of the study. The researcher also explained the complex items as were requested by the head teachers. Further an appropriate date for collecting the completed questionnaire was arrived at.

3.9 Data Analysis Procedure

The study collected both qualitative and quantitative data. The collected data was inputted into SPSS programme and then categorized, coded and analyzed. Responses in the likert scale were assigned numerical values to make quantitative analysis possible. Qualitative data to be obtained from the open ended items were analyzed thematically. The responses formed the themes for analysis. Qualitative data was analyzed for descriptive statistics (percentages and frequencies). The researcher used tables for data presentation.

3.10 Ethical considerations

To enable anonymity, the respondents were not required to write their names. The researcher explained to the respondents that their non-response would not be used in the instrument. The participants were also informed that any information collected from the institution and students would be treated confidential.

Table 3.3: Operationalization Summary

| Research questions | Independent variables | Dependent variables | Data Analysis |
|---|---|---|--------------------------------------|
| What is the extent to which funds availability influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya? | Funding Government -subsidy - CDF Contribution by parents Donors help - (NGO) | Sustainability of sanitary facilities in primary school | Inferential & Descriptive Statistics |
| To what extent does Government policy influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya? | Government policy The public health act Municipal Planning Regulations Environmental health regulations | Sustainability of sanitary facilities in primary school | Inferential & Descriptive Statistics |
| To what extent does sanitary awareness influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya? | Sanitary Management - Cleaning and disposal -Maintenance and Repair -Project Management | Sustainability of sanitary facilities in primary school | Inferential Statistics |

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, & INTERPRETATION

4.1 Introduction

This chapter presents the results of the study. It starts with a summary of the characteristics of the participants. The chapter presents results relating to the objectives under the themes; extent to which availability of funds influence sustainability of girls sanitary facilities in public primary schools, extent to which government policy influence sustainability of sanitary facilities for girls, extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town

4.1.1 Questionnaire Return Rate

All respondents were reached with a 96% return rate as indicated in table 4.1

Table 4.1: Response Rate

| Respondents | Administered | Returned | Percentage return rate(%) |
|--------------------|---------------------|-----------------|----------------------------------|
| Head teachers | 18 | 18 | 100 |
| Teachers | 80 | 80 | 100 |
| Girls | 330 | 315 | 95 |
| | 428 | 413 | 96 |

4.2 Demographic Characteristics of Participants

While the study did not aim at investigating the effect of the demographic characteristics on sustainability of sanitary facilities for girls in public primary schools, it was critical to get this information for future article writing and documentation. The participants included 4 males and 14 female primary school head teachers making a total of 18 head teachers. An additional 80 female primary school teachers and 330 female pupils in standard six (6) to eight (8) were also respondents in the study.

4.2.1 Gender of Respondents

The researcher first sought to establish the gender of the respondents for the study.

The findings are indicated in table 4.2 below.

Table 4.2: Gender of Respondents

| Gender | Frequency | Percentage (%) |
|---------------|------------------|-----------------------|
| Male | 17 | 4 |
| Female | 396 | 96 |
| Total | 413 | 100 |

The distribution of the respondents by gender showed that majority of the respondents 96% were females, while the remaining (4%) were male. This seems to contradict literature that indicates that in many schools in Africa, girls have very little chance of being taught by a woman. Across the developing world, less than one quarter of primary school teachers are women (Global Campaign for Education 2003), and in some countries the percentage can be as low as 10% or 13% (UNESCO 2002). However the high number of female respondents for the study was because the study purposefully targeted female teachers and girls. The 4% male represented the few Male head teachers interviewed.

4.2.2 Age of the Respondents

The researcher also sought to establish the age of the respondents and table 4.3 below shows the distribution of the age among the respondents.

Table 4.3: Age bracket of respondents (pupils)

| AGE | Frequency | Percentage (%) |
|--------------|------------------|-----------------------|
| 11 | 73 | 23 |
| 12 | 84 | 27 |
| 13 | 82 | 26 |
| 14 and above | 76 | 24 |
| Total | 315 | 100 |

As indicated in table 4.3 majority of the pupils are in the age of 12 and 13 years each at 27% and 26% respectively. This is followed by the ages of 14 and above at 24% and 11years at 23%. Thus the researcher chose the girls from standard six to eight to

be the respondents of the study because most of them are aware of their sanitary needs especially from the age of 11 years.

Table 4.4: Age bracket of respondents (Teachers)

| AGE | Number of respondents | Percentage (%) |
|--------------|------------------------------|-----------------------|
| 18 -28yrs | 18 | 18% |
| 29-39years | 38 | 39% |
| 40-50yrs | 32 | 33% |
| Above 51 yrs | 10 | 10 |
| Total | 98 | 100 |

An analysis of the age of respondents on table 4.4 above revealed that majority of sampled teachers are in the age of 29-39 years at 39%, 40-50 years at 33% and 18-29years 18 % representing fresh graduates and recently employed teachers. The minority group is teachers of age 51 and above representing 10% of the respondents. The age groups of the teacher sampled are good for this study. The majority (Within the age 29-39 and 40-50 years) are young parents and probably have girls who are in class 6-8 years and understand their challenges well. These are also teachers who have been in the teaching profession for more than 7-10 years, hence they may understand the girls better and give empirical data for the study.

4.2.3 Education Level of the Respondents

The research sought to establish the educational levels of the respondents specifically the teachers and the findings are shown in the table 4.5

Table 4.5: Education level of respondents

| Education level | Frequency | Percentage |
|------------------------|------------------|-------------------|
| Certificate | 20 | 21% |
| Diploma | 35 | 36% |
| Degree | 33 | 34% |
| Master | 10 | 9% |
| Total | 98 | 100% |

The findings in table 4.5 above revealed that 36% of the respondents had attained college education, 34% degree, 21% had P1 Certificate, and only 9% post graduate level. The level of training and education for teachers determines the kind of knowledge they will share to the pupils on any subject matter. As was observed by Kamuli and Katahore (2003), trainee teachers in Uganda reported that various topics related to maturation, puberty and sexuality were missed altogether or were only cursorily covered by their tutors. The type of training given to teachers at various levels will help the teachers in giving guidance and counselling to the girls concerning the maturation level and hygiene.

4.2.4 Length of Service in the Current School

The study also investigated the length of service of the in the current school.

Table 4.6: Length of Service in the Current School

| Category | Frequency | Percentage (%) |
|-----------------|------------------|-----------------------|
| 0-5 years | 32 | 32.6 |
| 6-10 years | 38 | 38.8 |
| Over 10 years | 28 | 28.6 |
| Total | 98 | 100 |

As shown in table 4.6 the researcher established that majority of teachers had issues of transfer from one school to another and hence the less percentage of those who have served in the same school for over ten years which was (28.6%), 0-5 years followed by (32.6%) and 6-10 had the highest response of (38.8%). This implies that the length of stay in the same institution will enable the subjects to be in a position to provide reliable information regarding the sanitary facilities that had been in place.

4.3 The Level of Adequacy of the Sanitary Facilities for Girls

On the first objective, the study investigated the extent to which availability of funds influence sustainability of sanitary facilities for girls .Various questions were posed to the respondents to facilitate this investigation.

4.3.1 Availability of funds in schools

The study investigated the availability of funds to facilitate the sustainability of sanitary facilities for girls in Primary schools. The results are shown in table 4.7

Table 4.7: Availability of funds

| STATEMENT | SA | A | U | D | SD | NA |
|---|------|-------|-------|-------|-------|------|
| My school receives funds to facilitate for provision of sanitary facilities | 0 | 0 | 19.1% | 31% | 46% | 0 |
| My school receives funds to facilitate sustenance of sanitary facilities | 0 | 2.1% | 19% | 30.8% | 29% | 18% |
| My school have funds to provide water | 13% | 17% | 20.5% | 22.8% | 28.5% | 0 |
| My school has enough funds to provide sanitary towels | 0 | 7% | 28.5% | 30% | 32% | 1.6% |
| Parents are pay for the provision and sustainability of sanitary facilities in my school. | 32%% | 23.3% | 9.8% | 28.7% | 6% | 0 |

Analysis on whether the school receives funds to facilitate for provision of sanitary facilities am majority (46%) of the respondents strongly disagreed and 31% disagreed while 19.1% were uncertain. This shows that the schools do not receive adequate funds to facilitate provision of the sanitary facilities. This facts were also confirmed when the respondents were asked whether their school receives funds to facilitate sustenance of sanitary facilities where 30.8% of the respondents disagreed, 29% strongly disagreed saying they were not adequate, 19% were not certain and 18% affirmed that there were no such funds given to the schools.. Only 2.1% agreed that some funds were given by the government to facilitate the sustainability of the sanitary facilities. check list, most schools are significantly below the requirements of public health policy (2011).

As explained in the maintenance of bathrooms in 4.2.1, lack of which means pupils are not able to freshen up after a physically involving exercise or after changing the sanitary pads during their menses. This means that the pupils get back to class and have to endure the stench and sweat throughout any preceding lessons way into preps time. This greatly affects their concentration and participation in learning activities

because the girls are conscious that they are producing a bad smell thus embarrassment. As was also observed by UNESCO (2009), lack of clean and healthy bathrooms means that girls often do not have anywhere to change and wash safely and privately.

The respondents were also asked to ascertain whether their schools had funds to provide water, a big majority confirmed that the funds were not adequate, whereby 28.5% strongly disagreed, 22.8% disagreed while 20.5% of the respondents. The remaining 17% agreed while 13% strongly agreed that there were enough funds for water provision. The interviewed school heads confirmed this lack and cited lack of funds and support from the poor supply of water. The research also established whether the schools had enough funds to provide sanitary towels .This was depicted by the 32% strongly disagreeing, 30%disagreeing, 28.5 % uncertain and only 7% of the respondents agreed with the adequacy of funds to provide sanitary towels.

Lastly the study investigated whether parents pay for the provision and sustainability of sanitary facilities in their school .A majority 32% strongly agreed, 28.7% disagreed, and 23.3% agreed that parents do contribute towards this maintenance fee. However 9.8% of the respondents were uncertain while 6% strongly disagreed. These findings are in agreement with World Bank (2002) where African countries were urged to consider the idea of cost sharing instead of fully relying on public expenditure in financing education. It further observed that in many African countries most of the money allocated to education is spent on teachers' salaries with little regard to equipment, maintenance of physical facilities and development.

Given that sanitary facilities are visible objects the researcher went ahead to find out whether the sampled primary schools have these facilities through observations and inquiries with administrative authorities the researcher. The table below presents data regarding the actual sanitation facilities and materials available in the sampled schools:

4.3.2 Level of Maintenance

As part of the first objective, the level of maintenance of the sanitary facilities was investigated. The findings are indicated in Table 4.8

Table 4. 8: Level of Maintenance

| STATEMENT | well maintained | Averagely maintained | Poorly maintained | Not applicable | TOTAL |
|---------------|-----------------|----------------------|-------------------|----------------|-------|
| TOILETS | 2.4% | 16.6% | 81% | 0 | 100% |
| WATER | 30% | 19% | 49.4% | 1.4% | 100% |
| BATHROOMS | 2.1% | 19% | 59.8% | 18% | 100% |
| DISPOSAL BINS | 7% | 28.5% | 62% | 1.6% | 100% |
| SANITARY PADS | 17.8% | 28% | 53.9% | 0 | 100% |

Table 4.8 shows the survey on the level of maintenance of the sanitary facilities. On examination of state of the toilets, 81% of the respondents felt that the toilets were poorly maintained, while 16.6% said they were averagely maintained. Only 2.4% of the respondents felt the toilets were well maintained. This explains the inadequacy observed on the observation check list on number and state of the toilets. Some pupils will rather hold on full bladder than bare the bad smell of their school toilets or stand in line waiting for another student to use the available facilities. Other pupils even remove their school jackets so as to avoid picking the stench when visiting these toilets. This is quite inconveniencing and affects their participation in school activities. Through observation, it was clear that the facilities in most schools were not in good condition. For instance, in two primary schools, the walls looked quite old and dirty signalling that the latrines were old. Besides, some of the doors that had been fixed in the entrance to ensure privacy had been broken and some had been completely removed thus defeating the overall purpose. Adequacy of toilet facilities has a direct effect on human behaviour. This justifies the Attribution theory, propounded by Weiner (1986) focuses on the idea of interpreting causes of events, why people do what they do.

On the issue of water, 49.4% said water was poorly maintained, 19% averagely maintained. 30% of the respondents felt water was well maintained. Most of the school heads interviewed blamed the municipal council for this water shortage. The

observation checklist however portrayed poor maintenance, broken down taps and absence of water reservoirs. Nakuru is majorly a dusty town. Lack of water means the school learning facilities e.g class rooms and laboratories cannot be cleaned up hence remain stuffy and highly inappropriate for learning and participation in indoor activities. Girls need water for cleaning especially during menses lack of which makes them very uncomfortable. This implies that the girls will opt to miss classes or school since there is no water in school for them to wash after changing the used sanitary pads. This justifies the report by UNICEF (2003) that many schools lack adequate water and sanitation facilities for girls to manage their monthly menses with privacy and dignity. Existing facilities may lack a sufficient water supply for washing of hands or clothes.

An examination of bathrooms indicated that 18% did not have these facilities and 59.8% felt they were poorly maintained, 19% were averagely maintained, while only 2.1% felt they were well maintained. This was observed in the check list. Most primary schools seem not to understand the importance of bathrooms. Lack of bathrooms implies that the girls cannot clean themselves after playing and sweating in the field, or changing the pads and hence get back to class not freshened up. This obviously affects their concentration in class activities. According to UNESCO (2009), lack of clean and healthy sanitary facilities means that girls often do not have anywhere to change or dispose of pads safely and privately. Most girls drop out at around 11-12 years old or miss school because of fear of being teased by their classmates if they show stains from their periods and their needs for safe and clean facilities is not prioritized

The maintenance of disposal bins was also investigated. Sixty two percent of the respondent said their disposal bins were poorly maintained, 28.5% said they were averagely maintained while only 7% said the disposal bins were well maintained. Sadly 1.6% of the respondents did not have the disposal bins in their school. This is significantly below the ratio recommended for schools. This means that some girls also felt ashamed to dispose their used sanitary pads in the pit latrines which were almost full. Most schools had dug pit latrines but were not well maintained. The pits were either too close to the classrooms or already overflowing and had bad odour emanating and getting into the nearby classes. Pupils questioned found this being a

great deterrent to their learning activities. Lack of disposal bins also implied that girls did not have a place to dispose off their used sanitary pads. This is in line with the findings by Blake (2013) that toilet stalls frequently lack a private and a safe place to dispose of used sanitary pads or cloths.

An investigation on maintenance of sanitary towels indicated that majority, 53.9 % of the respondents felt that sanitary pads for girls in their schools were poorly maintained. 28 % however felt that the same was averagely maintained while 17.8 % said they were well maintained. This is confirmed again on the observation check list and the interview schedule for head teachers that the sanitary towels are significantly inadequate. Most of the schools do not provide the sanitary facilities but they only preserve them for emergencies, thus some girls may not be willing to go for towels in case of emergencies rather they would opt to go home and change. Thus this lowers and affects girls' participation in education. These findings justify earlier findings by UNICEF (2009) that many schools have a very poor sanitation facility, which are mostly inappropriate and affects girls' participation in education and also their performance.

4.4 Government Policy Influence Sustainability of Sanitary Facilities for Girls

Further, the researcher sought to find out the extent to which government policy influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya. Results indicated on table 4.9

Table 4.9: Government Policy Influence Sustainability of Sanitary Facilities

| Statement | SG | A | UN | D | SD |
|--|-----------|----------|-----------|----------|-----------|
| There is a law guiding the provision of sanitary facilities in school | 41% | 16.6% | 32.4% | 10 | 2.4% |
| My school has adhered to government policy on sanitary facilities | 19% | 1.4% | 30% | 49.4% | 30% |
| The government officers visit my school to access the state of sanitary facilities | 17.8% | 23.9% | 28% | 10 | 30.3% |
| Government policy has not assisted in ensuring provision and sustainability of sanitary facilities in my school. | 27% | 18.5% | 17.1% | 1.6% | 42% |
| We do not need government policy on sanitary provision and sustainability in my school | 2.0% | 16.6% | 0.4% | 10% | 71% |

As depicted in tale 4.9 a significant majority 41% of the respondents strongly agree that there is a law guiding the provision of sanitary facilities in school. However another majority 32.4% were uncertain of this fact. Another 16.6% agreed to this fact while ten percent of the respondent disagreed. This shows that a big number of the respondents are not aware of the by-laws on sanitation requirements in the schools. Public health policy (2011) requires a ratio of 1:25 for boys, 1:30 for girls. The findings above fall short of these requirements with some schools observed to stretch to 1:100 boys and 1:120 girls which is significantly inadequate. A majority (79.9%) of the respondents either disagreed or strongly is agree to that fact that their school has adhered to government policy on sanitary facilities. Another 30% were still uncertain about this issue while only 19% strongly agreed.

A majority 30.3% of the respondents strongly disagreed that the government officers visit their school to access the state of sanitary facilities. Another 28% were uncertain while 41.7 % either agreed or strongly agreed that government inspectors do visit the schools to assess sanitary sate of the school. On whether the government policy has

not assisted in ensuring provision and sustainability of sanitary facilities in the school a majority (42%) strongly disagreed, 28.5% agreed, 27% strongly agreed while 17.1% of the respondents were uncertain about this. This confirms that despite of clear legislative initiative by the government on school quality assurance, most officers bends this rule by allowing some schools to still run in totally unacceptable sanitary conditions. This is in agreement with MoEC,(2005).where officials from the ministry of education were accused of engaging inn corrupt dealings with head of school in order to exempt them from quality assurance inspections. The core function of school inspectors is to assess the academic progress of the pupils, learning environment and how teaching and learning is being operationalised (MoEC, 2005).

On the last inquiry an overwhelming majority (81%)of the respondents either strongly disagreed or disagreed to the assumption that the schools do not need government policy on sanitary provision and sustainability .Another 16.6% agreed tot his fact urging that sanitation is common sense and the schools ought to ensure its sustainability without government supervision. This is in agreement with SSHE(2006) that inspection in school programmes on water and sanitation are initiated and supported by governments and international agencies as part of the effort for universal primary education as well as universal sanitation where the school is seen as a point of outreach to the household for improving sanitation.

4.5 Influence of Sanitary Awareness on Sustainability of Sanitary Facilities.

The research also investigated the extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools of Nakuru Town Sub-County, Nakuru County, Kenya..From the questionnaire and interview schedule administered, the respondents cited various effects. The finings are shown in table 4.10

Table 4.10: Influence of sanitary awareness on sustainability of sanitary facilities

| Effect | SA | A | UN | D | SD |
|--|-----|-----|-----|-----|-----|
| Our school sanitary facilities are managed by outsourced agents | 41% | 33% | 11% | 9% | 27% |
| Sustainability of sanitary facilities depend on the knowledge of pupils on sanitary care | 42% | 22% | 2% | 4% | 30% |
| Sustainability of sanitary facilities depend on the knowledge of the managers on sanitary care | 59% | 29% | 4% | 5% | 3% |
| Our toilet cleaners use specific recommended cleaning products | 31% | 24% | 20% | 10% | 5% |
| The pupils are trained on use of the sanitary facilities. | 4% | 22% | 0 | 30% | 44% |

As indicated in table 4.10 above, a significant majority 74% of the respondents either agreed or strongly agreed to the fact that there schools sanitary facilities are managed by outsourced agents .Another majority 64% also agreed or strongly agreed that Sustainability of sanitary facilities depend on the knowledge of pupils on sanitary care..On whether Sustainability of sanitary facilities depend on the knowledge of the managers on sanitary care an overwhelming majority (88%) also strongly agreed or agreed to tis fact..31% of the respondents also strongly agreed that their schools toilet cleaners use specific recommended cleaning products. Surprisingly 20% of the respondents were uncertain about this fact. The researcher also inquired if the pupils are trained on use of the sanitary facilities of which a majority 74% of the respondents either disagreed or strongly disagreed to this fact.

4.6 Strategies to Enhance the Adequacy of Sanitary Facilities

The research sought to find out possible strategies to enhance the adequacy of sanitary facilities in primary schools .The major suggestions were made as follows:

Table 4.11: Strategies enhance adequate sanitary facilities

| Strategies. | Percentages |
|---------------------------|-------------|
| Legislation /Penalties | 92 |
| Government funding | 82 |
| professional skills | 87 |
| Regular checks | 74 |
| Involve all stake holders | 62 |
| Offer incentives/rewards | 77 |
| source cleaning agents | 82 |
| Build new facilities | 77 |
| Regular repairs | 77 |

The table 4.11 describes the findings on an investigation on the possible remedies to enhance adequate sanitary facilities and improve girls' participation in primary schools. An overwhelming majority of 97% cited the need for adherence to a proper legislation by the government officers and introduction of penalties to defaulters. Other major reasons included need to develop skills at 87% followed by out sourcing of cleaning agents and increase of government funding at 82% of the respondents .There were other equally important remedies like Offer incentives and rewards to pupils, teachers and head teachers for keeping good sanitation, Building new and modern sanitary facilities, budgeting for and Carrying out regular repairs as well as Involving all stake holders for example N.G.Os, C.B.Os., Health groups and the P.T.As in enhancing the virtue. These represented 77%, 77%, 77% and 62% respectively.

Global grassroots (2011) agrees with these strategies and states that a safe and clean school environment will help girls excel in schools. Policy makers should prioritise, and clearly articulate, a policy position on the provision of sanitary ware for girls in schools, as a right for all girls that need them. In addition, the school curriculum should include information on proper sanitation and hygiene. In addition, water-sanitation facilities and proper toilets, which offer privacy, should be a priority in all Kenyan schools to increase attendance among adolescent girls. Hand washing basins with clean water and soap must be provided in each toilet block. Toilet facilities should be cleaned with soap or disinfectant at the end of every day.

Cleaning duties can be the responsibility of the students, operating on a rotation basis. If this is done, then a member of staff should supervise the students to ensure that the toilets are cleaned properly and the students wash their hands properly when they are finished. Refuse must be disposed of safely. Bins with well-fitting lids or sacks are the most appropriate containers to prevent flies and vermin from being attracted to refuse. Refuse must be removed regularly and disposed of safely.

4.7 Inferential Statistics

To evaluate the relationships between the dependent and independent variables, correlation analysis was done and the findings presented in the following subsections. A correlation analysis, specifically the Product Moment Correlation Coefficient, was used to test the relationship of the study variables. Pearson correlation coefficients (r) can take on only values from -1 to $+1$. The sign out the front indicates whether there is a positive correlation (as one variable increases, so too does the other) or a negative correlation (as one variable increases, the other decreases). The size of the absolute value (ignoring the sign) provides an indication of the strength of the relationship. A perfect correlation of 1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable. Correlation coefficient between $.1$ and $.29$ indicate low correlation, between 0.3 to 0.49 indicate medium correlation, and between 0.5 to 1 high correlations. In this subsection a summary of the correlation and regression analyses is presented. It seeks to first determine the degree of interdependence of the independent variables and also show the degree of their association with the dependent variable separately. These results are summarized in table 4.12

In this subsection a summary of the correlation and regression analyses is presented. It seeks to first determine the degree of interdependence of the independent variables and also show the degree of their association with the dependent variable separately. These results are summarized in Table 4.12

Table 4.12: Summary of Correlations

| | | Availability of funds | Government policy | Awareness on sanitation | Sustainability of sanitary facility |
|---|---|----------------------------|----------------------------|-------------------------------|---|
| Availability of funds | Pearson Correlation Sig. (2- tailed) | 1 | | | |
| Government Policy | Pearson Correlation Sig. (2- tailed) | .192 [*] 0.027 | 1 | | |
| Awareness On Sanitation | Pearson Correlation Sig. (2- tailed) | .347 ^{**} 0 | .342 ^{**} 0 | 1 | |
| Sustainability of sanitary facility | Pearson Correlation Sig. (2- tailed) | .478 ^{**} 0 | .220 [*] 0.011 | .268 ^{**} 0.002 | 1 0 |

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

**.. Correlation is significant at the 0.01 level (2-tailed).

A correlation analysis to determine whether availability of funds had an influence on sustainability of sanitary facility shows a relationship exists ($r = 0.478$, $\alpha = 0.01$). This suggests that availability of funds was important in sustainability of sanitary facility in public primary schools. The correlation analysis to determine whether government policy had an influence on sustainability of sanitary facility in public primary schools showed that a relationship existed ($r = 0.220$, $\alpha = 0.05$). The study also sought to determine whether there existed a significant relationship between awareness on sanitation and its influence on sustainability of sanitary for girls in public primary schools. The correlation analysis shows that a relationship exists ($r = 0.268$, $\alpha = 0.01$). The relationship is low suggesting that it is not a major factor.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS

5.1 Introduction

This chapter presents the summary of the findings, conclusion and recommendations of the study; based on the research objectives. Suggestions for further research are also given at the end of the chapter.

5.2 Summary of Findings

Based on the data analysis, the following is a summary of the findings in this study: The distributions of the respondents by gender showed that majority of the respondents were females. This was because the study purposefully targeted female teachers and girls. The distribution of the age of respondents among girls showed that majority of the girls were in the age of twelve years which helped the researcher to gather information for the research because girls at this age are aware of menstruation. The age groups of the teacher sampled were good for this study because majority were within the age 29-39 and 40-50 years are young parents and probably have girls who are in class 6-8 years and understand their challenges well. Majority of teachers were Diploma holders and it seems they study guidance and counselling in their training, hence they are able to handle the adolescent girls. The length of stay in the same institution implied that the teachers were conversant with the facilities that had been in place hence provided reliable information.

The first objective was to establish the influence of availability of funds of sustainability of sanitary facilities for girls in public primary schools. Majority of the sanitary facilities in the schools used in this study, that is the toilets, water, washrooms, disposal bins and sanitary towels were found to be inadequate in terms of number and state. Most of the schools complained due to lack of funds to construct more facilities and cater for maintenance and repair. The funds contribute by parents were found to be inadequate.. This implied that the schools were unable to sustain the state of sanitary facilities in the school especially due to the increased school population as result of the free primary education.

The second objective was to identify the government policy influence sustainability of sanitary facilities in primary schools. The study found out that most schools do not recognise the influence of government policy on sanitary provision in schools. Other confirmed government officials had made visitations in their school to assess the state of the sanitary facilities but no action had been taken to improve the state..Most respondents agree that the government policy need to be made clear to all schools and implemented to the latter.

The third objective was to determine extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools. The study found out that majority of the respondents were not aware of sanitary care and knowledge adequate for management of the sanitary facilities..Most schools prefer to out sourcing of cleaner and sanitary managers to facilitate the cleaning and sustenance of the sanitary facilities

The fourth objective was recommending strategies for improving sanitary facilities and girls' participation in education. The strategies included proper legislation on provision of sanitary facilities, outsourcing of cleaning agents, increase of funding for public schools development, offer incentives and rewards to pupils, teachers and head teachers for keeping good sanitation, building new and modern sanitary facilities and Proper budgeting for and carrying out regular infrastructure repairs. If these strategies were taken in to account, then girls' participation in education would improve when there is adequate sanitary facilities.

5.3 Conclusions of the study

The first objective was to establish the influence of availability of funds of sustainability of sanitary facilities for girls in public primary schools. The researcher found out that there is generally inadequate funding meant more sustainability of sanitary facilities in public primary schools Nakuru town sub-county. The available latrines were also very dirty, old and even some did not have fixed doors such that the girls were ashamed of using them since there is no privacy. The study concludes that lack of funds resulted to poor sustenance of the sanitary facilities.

The second objective was to determine the extent of the government policy influence sustainability of sanitary facilities in primary schools. The findings were that

government legislation on public health and sanitary provision in school was wanting due corruption and plain disobedience of the rule of law by some school and ministries officers.. It can be concluded that the poor state of the sanitary facilities in primary schools is as a result of unenforced laws by government officials.

Objective three was to determine the extent to which awareness on sanitation influence sustainability of sanitary facilities for girls in public primary schools. . According to the findings of the study, it is concluded that most schools lack sanitary awareness hence are unable to sustain their sanitary facilities adequately.

The last objective was to recommend strategies to improve the adequacy of sanitary facilities on girls' participation in primary education. Key education stakeholders need to put measures in place to curb the effect of adequacy of sanitary facilities on girls' participation in education for example, government funding, regular check-ups out sourcing cleaning agent, involving stake holders, regular repairs and building modern facilities. The study concludes that if all the measures are taken into consideration, the girls' participation in education can be improved. The girls can also be provided with sanitary pads especially those who are needy in primary schools. The toilets should also be cleaned regularly like in the morning, during the day and in the evening.

5.4 Recommendations

- i) The study found out that sanitary facilities in most schools were poorly maintained. The study recommends that the Ministry of Education should conduct regular monitoring and cleaning of the latrines and other sanitation facilities should be ensured especially in the morning and evening hours of the day. Regular maintenance and should also be ensured by the school administrations.
- ii) Results from the finding indicates that School administration should design sanitation and hygiene policies and programs to groom students and general school population into practically responsible citizens with good knowledge and practices as far as sanitation and hygiene are concerned.
- iii) The study indicates that the fact that majority of the head teachers in primary school are male, influences the considerations for girl's sanitary care. Thus the study recommends that Head teachers especially male, should be trained on aspects of girls sanitation and hygiene strategies while they are still at University or Teachers Training College.

- iv) The findings from the study indicated that Free Primary Education is a factor that has led to the inadequacy of sanitary facilities. It is therefore strongly recommended that a separate budget is put aside and strictly observed by the schools to cater for this indispensable service in the schools. It is expected that the increase in enrolment comes with increase in income to the schools.
- v) The study also established that the sanitary facilities were found to be inadequate in terms of cleanliness, wear and tire. It is recommended that the facilities should be cleaned and repaired regularly.

5.5 Suggestions for Further Studies

Analysis of factors influencing sustainability of sanitary facilities for girls in primary school covered a limited number of variables. The researcher recommends further research into the following areas .

- i. The home and school environment factors as determinants of use and care of sanitary facilities
- ii. Management of sanitary facilities for the disabled and physically impaired persons.

REFERENCES

- Aid link (2011) *Kenya – Sanitary Towel Revolution* Third world development through partnership Annual Report.
- Beusang, C.C. and Razor, A.G. (2000). 'Young western women's experiences of menarche and menstruation.' *Health Care for Women International*, 21, pp. 517-528.
- Bista, M. B. (2004). *A review of research literature on girls' education in Nepal*. For UNESCO Bangkok. Bangkok: UNESCO
- Burrows, A. and Johnson, S. (2005). 'Girls' experiences of menarche and menstruation .' . *Journal of Reproductive and Infant Psychology*, 23 (3), pp. 235-249.
- FAWE Uganda (2003). *Creating opportunities for girls' participation in education in Uganda*. Presentation at Transforming Spaces: Girlhood, Action and Power Conference, Montreal, November 2003.
- FAWE Uganda (2004). *Sexual maturation in relation to education of girls in Uganda:documenting good practices in girls' education*. Un published report. Kampala: FAWEU.
- Fitzgerald, M. A. (2002). *Throwing the stick forward: the impact of war on Southern Sudanese women*. Nairobi: UNIFEM & UNICEF (African Women for Peace Series).
- GAPS & FAWE-Uganda (1999). *Gender and primary school*. Kampala: FAWE U.
- Global Campaign for Education (GCE) (2003). *A fair chance: attaining gender equality in basic education by 2005*. London: GCE.
- Global Grassroots (2011), *Think about young girls*
www.globalgrassroots.org/younggirl...
- Houppert, K. (2000). *The curse: confronting the last taboo, menstruation*. Vancouver: Douglas &McIntyre Publishing Group.
- Human Rights Watch. (2003). *Policy paralysis: a call for action on HIV/AIDS-related human rights abuses against women and girls in Africa*. New York: Human Rights Watch.

- INSTRAW (2005). *Review and Appraisal of the Beijing Declaration and Platform for Action: Women and education and training*. Dominican Republic: United Nations International Research and Training Institute for the Advancement of Women
- Janda, J. (2004). *Hygiene issues in the use of comfort kits to increase girls' attendance in the girl friendly school environments and unfriendly environments*. Nairobi: unpublished program document of Sudan Basic Education Program.
- Jenara Nerenberg(2010) *Banana-Based Pad Maker Elizabeth Scharpf Wants Rwandan Women Educated*. *Period.*Fast Company Magazine September 30, 2010 Edition.
- Kamuli, E. and Katahore, A. R. (2003) *Summary report on improving the teaching and management of growing up and sexual maturation in primary schools in Uganda*.
- Kanyike, F., Akankwasa, D. and Karungi, C. (2004). *Menstruation as a barrier to gender equality in Uganda*. Insights Education. <http://www.id21.org/insights/insightsed03/insights>
- Kirk, J. (2004). IRC Healing Classrooms Initiative: *a follow-up study in Afghanistan*. *Draft Report*. Unpublished report . New York: The International Rescue Committee (IRC).
- Kirk, J. (2005). *The SoE/SBEP Gender Equity Support Program: an early impact assessment*. Unpublished program document of Sudan Basic Education Program. Nairobi.
- Kirk, J. and Sommer, M. (2005) *Menstruation and body awareness: critical issues for girls' education*. EQUALS, (15, pp 4-5.
- Kirumira, E. (2004). *Life skills, sexual maturation, and sanitation: what's (not) happening in our schools? An exploratory study from Uganda*. Zimbabwe: Women's Law Center Weaver Press.
- Kothari C.R (2007) *Research methodology: Methods and techniques* New Delhi New age

international limited publishers.

Lloyd, C., Mensch, B. and Clark, W. (2000). *The effects of primary school quality on school dropout among Kenyan girls and boys*. Comparative Education Review, 44(2), pp. 113-146.

Ngaroga, J.M. (2011) *Revision Education for Primary Teacher Education*. Nairobi: East African Educational Publishers Ltd.

Rockefeller Foundation/Quality Education for Social Transformation (QUEST). (n.d.). *Improving the management of sexual maturation in primary schools in Kenya, Uganda and Zimbabwe: a concept paper*. Retrieved from Quest

R. M. Gacheiya, B. M. Mutua (2008) *Implementation of urine-diversion dry toilets in schools in Nakuru, Kenya –*

Samkange, F. (2000). *Sexual maturation and education processes*. Zimbabwe, Midlands State University.

Shukla, S. (2005). *Working on menstruation with girls in Mumbai, India: Vacha Women's Resource Centre*. EQUALS, (15)

Shukla, S. and Hora, N. (2004). *Providing for pre-adolescent girls in India*. In *Insights Education*.<http://www.id21.org/insights/insights-ed03/insights-issued03-art02.html>

UNAIDS, UNFPA and UNIFEM (2004). *Women and HIV/AIDS: Confronting the Crisis*.

UNESCO. (2002). *Education for All: is the world on track? EFA Monitoring Report 2002*.

UNESCO. (2003). *Gender and Education for All: the leap for equality*. Global Monitoring Report 2003/2004. UNESCO: Paris.

UNFPA, UNICEF and WHO. (2003). *Adolescents: Profiles in empowerment*. New York & Geneva: UNFPA, UNICEF & WHO.

UNICEF. (2006). *Adolescent girls*.http://www.unicef.org/adolescence/index_girls.html

- UNICEF/IRC(2006)Global workshop on school Sanitation and hygiene education.
Workshop report March
- UNICEF. (2005). *Sanitation: the challenge*. <http://www.childinfo.org/areas/sanitation>.
- UNICEF/AET. (2002). *School baseline assessment in southern Sudan*. UNICEF:
Nairobi. United
- Nations' Special Rapporteur on the Right to Education. (2004). Report to the Human
Rights Commission. Geneva: United Nations.
- Vacha (2002). *Balkishori: the Pre-adolescent girl*. Health and education status of girls
in the age group 9-13 in municipal schools in Mumbai. Mumbai: Vacha.
- Wango, G.(2010) *School Administration and Management: Quality Assurance and
Standards in schools*. Nairobi: Jomo Kenyatta Foundations.
- Walkerdine V., Lucey H. and Melody, J. (2001). *Growing up girl: psychosocial
explorations of gender and class*. New York: New York University Press.
- World Bank. (2005). *Toolkit on hygiene, sanitation and water in schools*. World Bank:
Washington DC. Retrieved from: www.schoolsanitation.org

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

JOYCE WANJIKU MWANGI

P.O BOX 1374

NAKURU,

KENYA.

Dear Sir/Madam,

RE: REQUEST TO CONDUCT RESERACH

I am a graduate student at The University of Nairobi University undertaking a Masters degree in project planning and management As part of my course work I am conducting a research study on “**Factors influencing the sustainability of sanitary facilities projects for girls in public primary schools in Nakuru Municipality Nakuru County, Kenya.** You have been selected to participate in this study. I am therefore seeking for assistance in collect the necessary information by filling in the questionnaire attached herein. This will only take about 10-15 minutes. Kindly not that the information being sought is purely for academic proposes and will be treated with outmost confidentially.

Your participation in the study will be highly appreciated.

Thank you very much.

JOYCE WANJIKU MWANGI

APPENDIX II: INTERVIEW SCHEDULE FOR HEADTEACHERS

1. (A) Gender male [] female [] (b) age _____Years

2. (A) Experience

1-5 year [] 6-10 years [] 11-15 years [] above 15 years []

3. Academic qualifications Degree [] Diploma [] Certificate []

Other (Specify)

4. How long have you been teaching in your current school?

1-5 year [] 6-10 years [] 11-15 years [] above 15 years []

5. (A) What age groups do you teach? [6-8] yrs [9-10] yrs [11 -13] yrs [14- above]

(B) How do you rate your School in terms of General facilities?

.....

Excellent [] Very Good [] Good [] Average [] Poor []

(c)How do you rate your school in terms of Sanitary Facilities?.....

Excellent [] Very Good [] Good [] Average [] Poor []

6. Give reasons for your answers to 5 above

.....

7. a) How old is the school.....

b) When was the last upgrading of sanitary facilities done?

.....

8. Do you provide for sanitary towels in your school?

Yes [] No []

9. If Yes which institutions/Companies/Organizations supply you

.....

.....

10.How often do they Supply you

.....

11. How adequate are the following facilities sustained in your schools?

| | STATEMENT | well maintained | Averagely maintained | Poorly maintained |
|---------------|-----------|-----------------|----------------------|-------------------|
| TOILETS | | | | |
| WATER | | | | |
| BATHROOMS | | | | |
| DISPOSAL BINS | | | | |
| SANITARY PADS | | | | |

14. What recommendation would you give to policy makers and planners on improvement of sanitary facilities for girls to participate fully in primary education?

.....
.....

APPENDIX III: QUESTIONNAIRES FOR TEACHERS

This research is meant for academic purpose. It will try to find out the factors influencing the provision and sustainability of sanitary facilities projects for girls in your school .You are kindly requested to provide answers to these questions as honestly and precisely as possible. Responses to these questions will be treated with utmost confidentiality. Please tick [] where appropriate or fill in the required information on the spaces provided.

PART A: DEMOGRAPHIC DATA/INFORMATION

1. Your gender Male [] Female []

2. What is your current age?

25 – 34 Years [] 35 – 44 Year [] 45 – 54 Years [] 55 Years and above
[]

3. Academic qualifications Degree [] Diploma [] Certificate []

Other (Specify)

4. How long have you been teaching in your current school?

1-5 year [] 6-10 years [] 11-15 years [] above 15 years []

5. How adequate are the following facilities sustained in your schools?

| | STATEMENT | well maintained | Averagely maintained | Poorly maintained |
|---------------|-----------|-----------------|----------------------|-------------------|
| TOILETS | | | | |
| WATER | | | | |
| BATHROOMS | | | | |
| DISPOSAL BINS | | | | |
| SANITARY PADS | | | | |

PART B: FUNDS AND SUSTAINABILITY OF SANITARY FACILITIES

The following are statements in relation to the extent to which availability of funds affect sustainability of girls sanitary facilities in public primary schools of Nakuru municipality, Nakuru County, Kenya. Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree

1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|----------|----------|----------|----------|----------|
| 1 | My school receives funds to facilitate for provision of sanitary facilities | | | | | |
| 2 | My school receives funds to facilitate sustenance of sanitary facilities | | | | | |
| 3 | My school does not have funds to provide water | | | | | |
| 4 | My school does not have funds to provide sanitary towels | | | | | |
| 5 | Parents are pay for the provision and sustainability of sanitary facilities in my school. | | | | | |

PART C: Government Policy Effect on Sustainability of Sanitary Facilities

The following are statements in relation to government policy effect on sustainability of sanitary facilities for girls in public primary schools of Nakuru Municipality.

Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree 1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|----------|----------|----------|----------|----------|
| 1 | There is a law guiding the provision of sanitary facilities in school | | | | | |
| 2 | My school has adhered to government policy on sanitary facilities | | | | | |
| 3 | The government officers visit my school to access the state of sanitary facilities | | | | | |
| 4 | Government policy has not assisted in ensuring provision and sustainability of sanitary facilities in my school. | | | | | |
| 5 | We do not need government policy on sanitary provision and sustainability in my school | | | | | |

Give two reasons for your response in question 5 above

.....

PART D: KNOWLEDGE ON SANITATION

The following are statements in relation to extent to which Knowledge on sanitation affect sustainability of sanitary facilities .Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree

1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|----------|----------|----------|----------|----------|
| 1 | Our school sanitary facilities are managed by outsourced agents | | | | | |
| 2 | Sustainability of sanitary facilities depend on the knowledge of pupils on sanitary care | | | | | |
| 3 | Sustainability of sanitary facilities depend on the knowledge of the managers on sanitary care | | | | | |
| 4 | Our toilet cleaners use specific recommended cleaning products | | | | | |
| 5 | The pupils are trained on use of the sanitary facilities. | | | | | |

APPENDIX IV: QUESTIONNAIRES FOR GIRLS IN CLASS 6-8

This research is meant for academic purpose. It will try to find out the factors influencing the sustainability of sanitary facility projects for girls in your school. You are kindly requested to provide answers to these questions as honestly and precisely as possible. Responses to these questions will be treated with utmost confidentiality. Please tick [$\sqrt{\quad}$] where appropriate or fill in the required information on the spaces provided.

PART A: BIOGRAPHICAL DATA/INFORMATION

1. What is your current age?

11– Years [] 12 – Years [] 13 – Years [] 14Years and above []

2. Which class are you in Class 6 [] Class7 [] Class 8 []

3. How long have you been in this school

Less than 5year [] 6 years []

7years [] 8years []

4. How adequate are the following facilities sustained in your schools?

| | STATEMENT | well maintained | Averagely maintained | Poorly maintained |
|---------------|-----------|-----------------|----------------------|-------------------|
| TOILETS | | | | |
| WATER | | | | |
| BATHROOMS | | | | |
| DISPOSAL BINS | | | | |
| SANITARY PADS | | | | |

PART B: FUNDS AND SUSTAINABILITY OF SANITARY FACILITIES

The following are statements in relation to the extent to which availability of funds affect sustainability of girls' sanitary facilities in public primary schools of Nakuru Municipality, Nakuru County, Kenya. Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree 1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | My school receives funds to facilitate for provision of sanitary facilities | | | | | |
| 2 | My school receives funds to facilitate sustenance of sanitary facilities | | | | | |
| 3 | My school does not have funds to provide water | | | | | |
| 4 | My school does not have funds to provide sanitary towels | | | | | |
| 5 | The number of toilet facilities in my school is adequate | | | | | |

PART C: Government Policy Effect on Sustainability Of Sanitary Facilities

The following are statements in relation to government policy effect on sustainability of sanitary facilities for girls in public primary schools of Nakuru municipality. Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree
1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|---|---|---|---|---|
| 1 | There is a law guiding the provision of sanitary facilities in school | | | | | |
| 2 | My school has adhered to government policy on sanitary facilities | | | | | |
| 3 | There is a law guiding the provision of sanitary facilities in school | | | | | |
| 4 | Government policy has not assisted in ensuring provision and sustainability of sanitary facilities in my school. | | | | | |
| 5 | We do not need government policy on sanitary provision and sustainability in my school | | | | | |

Give two reasons for your response in part D above

.....

PART D: KNOWLEDGE ON SANITATION

The following are statements in relation to extent to which Knowledge on sanitation affect sustainability of sanitary facilities Please tick [√] where appropriate

KEY: 5=strongly agree 4=Agree 3=Uncertain 2=Disagree

1=Strongly Disagree

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|----------|----------|----------|----------|----------|
| 1 | Our school sanitary facilities are managed by outsourced agents | | | | | |
| 2 | Sustainability of sanitary facilities depend on the knowledge of pupils on sanitary care | | | | | |
| 3 | Sustainability of sanitary facilities depend on the knowledge of the managers on sanitary care | | | | | |
| 4 | Our toilet cleaners use specific recommended cleaning products | | | | | |
| 5 | The pupils are trained on use of the sanitary facilities. | | | | | |

APPENDIX V: RESEARCH AUTHORIZATION LETTER



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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When replying please quote

9th Floor, Utalii House
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P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No.

Date:

25th July, 2014

NACOSTI/P/14/9317/2506

Joyce Wanjiku Mwangi
University of Nairobi
P.O.Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Factors influencing the sustainability of sanitary facility projects for girls in public primary schools in Nakuru Town Sub-County, Nakuru County, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Nakuru County** for a period ending **19th September, 2014**.

You are advised to report to **the County Commissioner and the County Director of Education, Nakuru County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


DR. S. K. LANGAT, OGW
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Nakuru County.