The Level of Adequacy of Sanitary Facilities for Girls in Primary Schools of Nakuru Municipality, Nakuru County, Kenya

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ABSTRACT
The adequacy of sanitary facilities is a critical issue in a girl’s life. Studies have shown that most aspects of a girl’s life are affected by lack of sanitary facilities thus lowering the girl’s esteem and confidence. The study sought to establish the level of adequacy of sanitary facilities for girls in primary education in Nakuru Municipality in Nakuru County, Kenya. A descriptive survey design was used as the preferred research design. The study targeted the 59 public primary schools in Nakuru Municipality comprising of 1100 girls, 59 Head teachers and 271 female teachers. Simple random sampling was used to select the 18 Schools and purposive sampling to get a sample size of 428 respondents comprising of 330 girls and 80 female Teachers. The Main research instruments used in this study were questionnaires, interview schedules and an observation check list. Piloting was done in two schools which were not included in the sample. The findings would be useful in establishing the level of adequacy of sanitary facilities. The study found out that although the primary schools in Nakuru municipality own variety of sanitation facilities they are highly inadequate and greatly affect girls’ participation in education. Most of the schools cannot cater for the high number of pupils and the few available are old or below the recommended and acceptable standards. School administrations need to prioritize the aspect of sanitation and hygiene. Proper legislation by the government officers and introduction of penalties to defaulters is vital. Offering incentives and rewards to pupils, teachers and head teachers for keeping good sanitation will also help in maintaining high standard of adequacy, in addition to building new and modern sanitary facilities.

Key words: Sanitary facilities, girls in primary schools, level of adequacy, participation in education
Literature on Adequacy of Sanitary Facilities in Primary Education

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. This is a factor which becomes even more critical at the onset of menstruation and may contribute to dropping out of school.

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 1 Recommended ratio of adequate sanitary facilities provision

<table>
<thead>
<tr>
<th>SEX</th>
<th>NUMBER OF LEARNERS</th>
<th>CLOSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIRLS</td>
<td>First 30 girls</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>For the next 270 girls</td>
<td>1 extra every 30 girls</td>
</tr>
<tr>
<td></td>
<td>Every additional girls</td>
<td>Closet per 50 girls</td>
</tr>
<tr>
<td>BOYS</td>
<td>First 30 boys</td>
<td>4 fitting</td>
</tr>
<tr>
<td></td>
<td>For the next 270 boys</td>
<td>1 fitting for every 30 boys</td>
</tr>
<tr>
<td></td>
<td>Every additional boy</td>
<td>1 fitting per 50 boys</td>
</tr>
</tbody>
</table>

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 I 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.

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 (studies quoted in UNESCO 2003).

DATA PRESENTATION AND INTERPRETATION

The Level of Adequacy of the Sanitary Facilities for Girls

The level of adequacy of sanitary facilities for girls formed the first objective of the study. The quantity, quality and state of the available facilities were assessed. Various questions were posed to the respondents to facilitate this investigation.

**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 4.3

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>well maintained</th>
<th>Averagely maintained</th>
<th>Poorly maintained</th>
<th>Not applicable</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOILETS</td>
<td>2.4%</td>
<td>16.6%</td>
<td>81%</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>WATER</td>
<td>30%</td>
<td>19%</td>
<td>49.4%</td>
<td>1.4%</td>
<td>100%</td>
</tr>
<tr>
<td>BATHROOMS</td>
<td>2.1%</td>
<td>19%</td>
<td>59.8%</td>
<td>18%</td>
<td>100%</td>
</tr>
<tr>
<td>DISPOSAL BINS</td>
<td>7%</td>
<td>28.5%</td>
<td>62%</td>
<td>1.6%</td>
<td>100%</td>
</tr>
<tr>
<td>SANITARY PADS</td>
<td>17.8%</td>
<td>28%</td>
<td>53.9%</td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research data (2013)

A survey of the toilets gave the following results, 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 us 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 obliquely 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 very poor sanitation facilities which are mostly inappropriate and affects girls participation in education and also their performance.

### Level of adequacy

The researcher sought to establish the level of adequacy of the sanitary facilities. The findings are indicated in figure 4.4 below:

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of sanitary facilities available is directly proportional to the number of girls</td>
<td>0</td>
<td>0</td>
<td>19.1%</td>
<td>31%</td>
<td>46%</td>
<td>0</td>
</tr>
<tr>
<td>The number of bathroom in my school are adequate</td>
<td>0</td>
<td>2.1%</td>
<td>19%</td>
<td>30.8%</td>
<td>29%</td>
<td>18%</td>
</tr>
<tr>
<td>The sanitary towels provided to girls in my school are adequate</td>
<td>13%</td>
<td>17%</td>
<td>20.5%</td>
<td>22.8%</td>
<td>28.5%</td>
<td>0</td>
</tr>
<tr>
<td>The number of Disposal bins in my school are adequate</td>
<td>0</td>
<td>7%</td>
<td>28.5%</td>
<td>30%</td>
<td>32%</td>
<td>1.6%</td>
</tr>
<tr>
<td>The number of toilet facilities in my school is adequate</td>
<td>6%</td>
<td>9.8%</td>
<td>23.3%</td>
<td>28.7%</td>
<td>32%</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Research data (2013)

Analysis of the level of adequacy of sanitary facilities 46% of the respondents strongly disagreed that the number of sanitary facilities available is directly proportional to the number of girls in their schools and 31% disagreed while 19.1% were uncertain of this proportionality. This show that the sanitary facilities are not enough for the number of girls in the schools meaning that there is always congestion especially during break time when most of them are using the
toilets. However, this has been brought about by the increase of pupils due to Free Education and the toilets have not been increased. Thus, this implies that the adolescent girls may feel shamed lining up with other young girls in order to use sanitary facilities available and therefore choose to stay away from school. In a study done by AMREF (2009) in primary schools in Kibera, Nairobi, it was revealed that the latrine to a pupil ratio in most schools is 1:50 compared with the recommended public health standard of 1:25 for boys, 1:30 for girls. The finding of this study confirms this fact is true also in Nakuru municipality.

Concerning bathrooms, 30.8% of the respondents disagreed that the bathrooms in their school are adequate, 29% strongly disagreed saying they were not adequate, 19% were not certain of the adequacy and 18% affirmed that there were no bathrooms in their schools. Only 2.1% agreed that the bathrooms were adequate. As observed in the 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 above, 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.

On the adequacy of sanitary towels, a big majority confirmed that the sanitary towels provided for girls in their school were not adequate, whereby 28.5% strongly disagreed, 22.8% disagreed while 20.5% of the respondents were uncertain of the adequacy of sanitary towels. The remaining 17% agreed while 13% strongly agreed with the adequacy in provision of sanitary towels. The interviewed school heads confirmed this lack and cited lack of funds and support from the towels producing companies as the major reason. Lack of sanitary facilities means girls cannot concentrate in class and some even prefer to stay at home and use any other facilities e.g rags etc. during their menses. This obviously affects their participation in school work. This confirms the findings by Burrows (2005) that 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.

Summary of Findings

Based on the data analysis, the following is a summary of the findings in this study:

Background information

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 Level of Adequacy of Sanitary Facilities for girls in primary schools

The first objective was to establish the level of adequacy of sanitary facilities for girls in 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 did not have these sanitary facilities and those that were there were poorly maintained or were not proportional to the number of girls in the school. This implied that the girls were not able to participate well in school because the toilets available were not enough, clean and safe for the girls to use especially during their menses.

Conclusions

The first objective was to establish the level of adequacy of sanitary facilities in primary schools. The researcher found out that there is generally inadequate coverage of sanitary facilities in the schools in Nakuru Municipality. There is considerable congestion for students trying to access school latrines in most of the schools in Nakuru Municipality. 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 there are inadequate sanitary facilities which contribute to low participation of girls in education. This is because they opt to stay home during their menses since they have neither a private and clean place to change nor water and bathrooms to wash after changing. Some girls also do not have the sanitary pads to use during this time.

The research also established that majority of the schools did not have organised and adequate disposal bins. This was depicted by the 32% strongly disagreeing, 30% disagreeing, 28.5% uncertain and only 7% of the respondents agreed with the adequacy of the number of disposal bins in their school. This was observed on the check list and is a health hazard. Lack of disposal bins in toilet forces the girls to use the flash toilets leading to blockages and hence outbreak of diseases and pollution. This implies that the latrines also fill so quickly because of disposing the pads in the pit latrines due to lack of disposal bins in the toilets and latrines This is in line with UNICEF (2005) that improper disposal is a universal problem. Worldwide people were without proper means of disposal facilities. Kassandra (2012) observed that female toilets require adequate supply of clean, appropriate and accessible disposal bins.

A similar concern is seen on the number of toilet facilities in the schools with 32% strongly disagreeing with the number, 28.7% disagreeing, and 23.3% uncertain. However 9.8% of the respondents agreed while 6% strongly agreed that the number of toilet facilities is adequate. 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. Given that these figures include infrastructure in educational institutions, primary schools are not exempted. The values presented above...
indicate big deficits of sanitation facilities and materials in the sampled schools of Nakuru Municipality. The ratios imply that the state of sanitary facilities is poor and there is a lot that needs to be done so as to rectify the situation. These findings are in agreement with Rugumayo 2002 findings that the National latrine coverage was 90% in the 1960s, but dropped to 30% in the 1980s and only rose to 47% in the 1990s.

The Level of Adequacy of Sanitary for girls in primary schools
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