

Towards Enhancing Safety Status of Dormitories in Learning Institutions

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Abstract

Despite global advances in technology, boarding schools still face the singular challenge of having dormitories that are uncondusive and non-compliant to safety measures and standards, consequently continuously exposing learners to hazardous learning environments. The gist of this study was to examine the safety status of dormitories in public secondary schools in Nyeri and Nairobi Counties, Kenya. The objectives of the study were: to establish the extent of compliance with safety measures and standards in the dormitory infrastructures in boarding schools, and to determine the status of utilization and conduciveness of the dormitories in boarding schools. In order to achieve the objectives of the study, a descriptive survey design was employed. Data were collected using questionnaires administered to 34 principals, 34 Deputy Principals, and 230 Form two and Form three students. The County Quality Assurance and Standard Officer (CQASO) was interviewed. Observation of the dormitories was also done by the researchers. The data collected were then analyzed quantitatively and qualitatively. The study found out that there was congestion, poor ventilation, triple deckers were used, fire extinguishers were lacking or were not operating and that cleanliness was wanting. The study concludes that most of the issues on dormitory safety on the schools under study stemmed from inadequate resources and failure to observe the Ministry of Education Safety Guidelines. Based on the findings and conclusions of this study, it is recommended that the Ministry of Education Safety Guidelines in reference to dormitories be observed in order to enhance effective learning processes in secondary schools in Nyeri and Nairobi Counties.

Keywords: Dormitories, Safety Status, Hazardous learning environments

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1.0 Introduction

1.1 Background to the Study

United Nations Educational, Scientific and Cultural Organization report that learning institutions around the world are experiencing numerous potential threats to security (UNESCO, 2018). This observation is critical because it implies that implementation of safety standards in learning institutions is not optimal and this negatively impacts on effective teaching and learning (Omolo & Simatwa, 2010). Dormitories are the single most used physical facility in boarding schools where learners spend the longest continuous period of time. It is, therefore, imperative to keep these facilities properly ventilated, safe and clean (MOE, 2008). However, Kenyan educational institutions have experienced several ghastly incidents in the dormitories, which other than leading to damage of properties, injuries and loss of lives through cases of fire and other health risk situations, have led to disruption of teaching and learning processes. According to reports in the County Director of Education's Offices in Nairobi and Nyeri, incidences of lack of safety in Secondary Schools have been on an upward trend. In Nairobi County, for example, a form three student was burnt to death when the dormitory in which he was sleeping was set ablaze (PDEs Office Nairobi, 2008). In another school in the same County, a dormitory of 68 form one students got burnt down when students were in for the night preps. In Nyeri County, two boys from one boy's secondary school perished in a school fire.

1.2 Literature Review

Lax safety standards and poor emergency procedures have been blamed for some past fires at schools. Wanzala (2017) reports that in 1991, 19 girls at St Kizito Mixed Secondary School died of rape and suffocation in their dormitories while in 1998, 26 girls died at Bombolulu Girls Secondary School in a dormitory fire, in 2001, 68 boys died in a dormitory fire. Wanzala adds that in the year 2016, there were 239 cases of fire in schools. These cases included a dormitory getting burnt in Siwot Mixed Secondary School, Bomet County leaving hundreds of students to spend the night in the cold, fire also burnt down a dormitory in Wang'apala High School, Homa Bay County and Giakaibe Boys High School, Nyeri County. However, the worst case of the arson attack was at Itierio Boys High School where seven dormitories were burnt in June, 28th 2016. The year 2017 was not an

exception either. In September, 2017, Kenyans woke up to another fire tragedy at Moi Girls High School in which fire gutted down a dormitory and killed nine students. According to the Education Cabinet Secretary Fred Matiang'i at the time, the preliminary investigations had ruled out possibilities of an accident. Other cases of dormitories getting razed in secondary schools in 2017 include: four out of 40 cubicles in a two-storied dormitory at Chuka Boys High school in Tharaka - Nithi County (Njeru, 2017); and dormitories at Sigoti Girls Secondary School in Nyakach, Kisumu County getting razed (Otieno & Maundu, 2017).

Such instances of school fires in Kenya started by students in protest resulting in students' death as well as disruption of teaching and learning and other schools' activities, saw the Ministry of Education draw up a circular (Safety Standards Manual, 2008) and send it to all public schools. This circular stipulates various measures to be put in place to reduce the risks involved in case of fire break out. These measures include among others: removal of mesh wire from classrooms and dormitory windows, installation of firefighting equipment like fire extinguishers, holding fire drills regularly and all buildings to have fire exits (Wanzala, 2017). Years later, students continue getting trapped in school fires and are dying, as evidenced in a fire incident that hit one boys' secondary school in Nyeri in November, 2010, where two boys died. On investigation, it was established that the dormitory still had meshed windows.

Studies have noted that the status of dormitories influences the students' academic performance (Nabaseruka, 2010). Nabaseruka found out that good accommodation offers students excellent opportunities for learning and social interaction with fellow students from varying social backgrounds. When students interact, they learn new ideas which help them to develop all the three domains of psychomotor, affective and cognitive. The student's capacity to learn is widened and the fear to learn fades, leaving them ready to learn and even consult teachers or those with knowledge about the subject (Nabaseruka, 2010). In another study, Lloyd, Tawila, Wesley, Clark and Mensch (2003) found that the impact of dormitory safety on time in school was statistically insignificant. However, incidences of fire outbreak in dormitories continue to be witnessed in schools despite the fact that MOE (2008) issued a Safety Standards Manual for use by all schools in Kenya (Ngesu, Ndiku & Masese, 2008). Therefore, it was imperative that a study on school safety in Nairobi and Nyeri Counties, Kenya, be undertaken.

2.0 Purpose and Objectives of the Study

The purpose of this study was to investigate the safety status of dormitories in public secondary schools in Nairobi and Nyeri Counties, Kenya. The study twofold main objectives were:

- a) To establish the extent of compliance with safety measures and standards in the dormitory infrastructures in boarding schools
- b) To determine the status of utilization and conduciveness of dormitories in boarding schools.

3.0 Research Methodology and Design

This study employed a survey research design that combined qualitative and quantitative data collection and analysis techniques. Quantitative data were generated from the questionnaires and observation guide, while qualitative data were derived from the responses from the interviews and from the open ended questions. According to Gall and Borg (2010), descriptive survey research involves the collection of information from learners, administrators of schools or any other person associated with the educational process. Survey design allows the researcher to collect facts rather than manipulate the variables (Creswell & Plano, 2011). The design was, therefore, relevant since the study was interested in establishing the facts as they were in regard to the status of school safety and their influence on teaching and learning processes.

This study targeted all (293) public secondary schools in Nairobi and Nyeri Counties. The schools were categorized into three: Boys' Boarding, Girls' Boarding and Mixed schools. The researchers targeted 32 Boys' boarding, 45 Girls' boarding and 216 mixed public secondary schools in the two counties. The participants included Principals, Deputy Principals, students and County quality assurance and standards' officers of the two counties selected for the study. This study targeted all principal (293) and Deputy Principals (293) in the area of the study. Principals and their deputies as stated by Mapfumo (1999) are in charge of discipline in schools and can provide crucial information regarding students' behaviour which could have either positive or negative influences on teaching and learning environment. They are, therefore, instrumental in ensuring school safety to facilitate teaching and learning process. The study involved all Forms 2 and 3 (50,168) students from the two counties. Form 2 and 3 students were targeted because they were thought to have stayed in their schools long enough to comprehend safety issue. The form two students represented the lower form while the form three students represented the upper form. All the two County Quality Assurance and Standards officers in the study were targeted because they continuously assess implementation of safety policies in schools to ensure provision of quality education (Mapfumo, 1999).

The study had a sample of 44 schools, (15% of 293) of target schools, their Principals and Deputy Principals. To obtain this sample, stratified random sampling was used whereby all schools were categorized

according to the two Counties (Nairobi and Nyeri) and then put into three strata: Boys Boarding, Girls Boarding and Mixed Schools. This enabled the researchers to select cases in proportion to some characteristics in the population to enhance the quality of the sample (Gorard, 2003). Typically, for stratified random sampling, the same percentage of participants, not the same number of participants, are drawn from each stratum (Patton, 1990). The researcher wrote the names of the schools on pieces of papers and put them in a basket accordingly, then randomly picked the stated sample of 44 schools as follows; 5, 7, 32 from Boys boarding, girls boarding and mixed schools respectively (See Table 3.1). Principals and Deputy Principals from these schools were automatically included in the sample.

In this study, three main types of data collection instruments were used. These included questionnaire method, for the purpose of primary quantitative data and interview guides and observation guide for qualitative data. There was a questionnaire for principals, deputy principals and students. In order to verify the accuracy of the information given by the respondents, the items from the questionnaire were made as similar as possible except where the response required did not apply to that particular respondent. An interview guide for the County Quality Assurance and standards' Officers and observation guide were also used by the researchers to verify the information regarding school safety.

4.0 Findings and Discussions

The study sought information on dormitory safety. Responses were as presented in Table 4.1.

Table 4.1: Students', Deputy Principals' and Principals' responses on Dormitories Safety in Public Secondary Schools in Nairobi and Nyeri counties

Statements	Students (n=358)					Deputy Principals (n=40)					Principals (n=41)				
	SA n %	A n %	NS n %	D n %	SD n %	SA n %	A n %	NS n %	D n %	SD n %	SA n %	A n %	NS n %	D n %	SD n %
1 <i>There is enough space between the beds in the Dormitories</i>	57 15.9	85 23.7	158 44.1	31 8.7	27 7.5	5 12.5	9 22.5	21 52.5	4 10.0	1 2.5	5 12.2	13 31.7	17 42	5 12.2	1 2.4
2 <i>Dormitories are well ventilated to allow circulation of air</i>	89 24.9	74 20.7	149 41.6	23 6.4	23 6.4	5 12.5	9 22.5	-	20 50.0	6 16.0	5 12.2	12 29.3	19 46	4 9.8	1 2.4
3 <i>Dormitories have two exits and an emergency exit at the middle</i>	67 18.7	42 11.7	146 40.8	44 12.3	59 16.5	4 10.0	11 27.5	20 50.0	3 7.5	2 5.0	10 24.4	12 29.3	17 42	1 2.4	1 2.4
4 <i>Triple decker are not found in the dormitories</i>	59 16.5	21 5.9	144 40.2	40 11.2	94 26.3	4 10.0	3 7.5	21 52.5	6 15.0	6 15.0	5 12.2	5 12.2	18 43	2 4.9	11 26.8
5 <i>Dormitory doors open outwards</i>	128 35.8	48 13.4	140 39.1	26 7.3	16 4.5	9 22.5	10 25.0	20 50.0	1 2.5	-	12 29.3	9 22.0	18 43	1 2.4	1 2.4
6 <i>There are fire extinguishers in the dormitories</i>	56 15.6	40 11.2	139 38.8	39 10.9	84 23.5	5 12.5	10 25.0	19 47.5	4 10.0	2 5.0	7 17.1	10 24.4	20 49	3 7.3	1 2.4
7 <i>Dormitories are clean and well maintained</i>	87 24.3	87 24.3	153 42.8	16 4.5	15 4.2	7 17.5	14 35.0	-	19 47.5	-	9 22.0	12 29.3	17 42	-	3 7.3

Legend: SA-Strongly Agree A-Agree NS-Not sure D-Disagree SD-Strongly Disagree

As indicated in Table 4.1, a small number of respondents, that is 85 (23.7%) of the students, 9 (22.5%) of the Deputy Principals and 13 (31.7%) of the Principals agreed to the statement that there was enough space between the beds. The respondents who strongly agreed to the statement were minimal. The researcher observed that most dormitories were congested and the little available space was used to store learners' boxes. County Quality Assurance and Standards Officer also had this to say regarding congestion in the dormitories:

In some schools the space between the beds is very tiny posing problems of movement to the students. Cleaning is a problem as well since cleaners are unable to reach the corners. This leads to many dormitories being infested by rodents, cockroaches and bedbugs.

Responding to the statement that dormitories were well ventilated to allow proper air circulation, 23 (6.4%) of the students, 20 (50%) of the Deputy Principals and 4 (9.8%) of the Principals disagreed that the dormitories were well ventilated to allow proper air circulation. The researcher observed that many of the dormitories in the schools under study were poorly ventilated. Similarly, County Quality Assurance and Standards' Officer

commented that some dormitories were built many years ago and the contractor had failed to consider some construction specifications.

Table 4.1 further indicates that 94 (26.3%) of the students, 6 (15%) of the Deputy Principals and 11 (26.8%) of the Principals strongly disagreed to the statement that triple-deckers were not found in the dormitories, revealing that triple deckers were used. This revelation that the dormitories were unsafe was further strengthened by the fact that only a small number of the respondents, that is, 67 (18.7%) of the students, 11 (27.5%) of the Deputy Principals and 12 (29.3%) of the Principals stated that dormitories had two exits and an emergency exit at the middle. Similarly, only a small percentage of the respondents, that is, 48 (13.4 %) of the students, 10 (25.0%) of the Deputy Principals and 12 (29.3%) of the Principals agreed that dormitory doors opened outwards. The findings further indicate that a considerable number of all respondents in the sampled schools that is, 178(41%) were not sure whether dormitory doors opened outwards. This kind of ignorance could indicate that students, Deputy Principals or Principals were not keen on ensuring school safety. However, the researcher observed that majority of the schools had adjusted their doors to open outwards or were in the process of doing so. This observation was supported by one CQASO who stated that most schools had tried to observe the requirement and that, the only problem was that some school Principals especially in girls' schools still locked the dorms from outside during the night, when the girls were sleeping. This according to the Principals was to ensure safety. Their argument was that in case of an emergency, the students could use the emergency door for escape. However, the problem was that the emergency doors in most schools were inaccessible due to litter that was piled next to the emergency door or boxes and cleaning equipment that were kept there.

Table 4.1 further indicates that only a small number, that is, 40 (38.11.2%) of the students, 10 (25%) of the Deputy Principals and 10 (24.4%) of the Principals agreed that there were adequate fire extinguishers in the dormitories. The researcher observed that only eight of the sampled schools had fire extinguishers that were functioning and the rest of the schools had either poorly maintained or non-functioning ones. It was the feeling of 87 (24.3%) students and 12 (29.3%) of the Principals that dormitories were clean and well maintained. However, 19 (47.5%) Deputy Principals disagreed to this statement. The observation made by the researcher was that five dormitories were untidy with unkempt beds, broken pieces of furniture and hanging electrical wires, four had dirty floors and broken window panes while two had uneven floors.

Figure 4.1 shows a dormitory with triple deckers that had weak front- grills. This is a clear indication that some schools had triple deckers yet the Safety manual indicates that there should be double deckers supported by firm side- grills. Although some upper beds were not in use at the time of data collection, the researchers observed that the side- grills were missing and instead, there were weak grills attached at the front of the beds. Figure 4.2 shows a clean and spacious dormitory. However, the double deckers are without side- grills.



Figure 4.1: An Example of a Congested Dormitory with Triple Deckers with Weak Front- Grills



Figure 4.2: An Example of a Clean and Spacious Dormitory with Double Deckers but without Side-Grills

From the findings of the study concerning dormitory safety, it is clear that many were congested, had poor ventilation, triple deckers existed without proper support of side-grills, fire extinguishers were lacking or were not operating and that cleanliness was wanting. This compromised the safety of the learners since a congested dormitory does not promote hygiene. These findings are in agreement with those of a study conducted by Mgadla (2006) that indicate that overcrowding in boarding schools in Kenya, especially those in informal settlement was promoting moral decay among students especially when they were allowed to share beds. The findings also concur with those of a study by Gatua (2013) that noted that firefighting equipment were not available in majority of the schools and where available were inadequate, not serviced and non-functional. According to Omolo and Simatwa (2010), dormitories should be fitted with an emergency door since this door provides an alternative during emergencies and failure to observe this can compromise security of students. Where ablution block is attached to the dormitory, a high degree of cleanliness must be maintained.

5.0 Conclusions and Recommendations

5.1 Conclusions

The study concludes that there was safety, utilization and conduciveness issues in dormitories infrastructures in Nairobi and Nyeri counties' secondary schools. These issues included location of the facility, congestion, lighting and ventilation, condition of the furniture and the roof, presence of grills as well as cleanliness of the facility. Poor state of these facilities made it unsafe for the learners. The study also established that the student population did not match the dormitories provided in the schools under the study. This study, therefore, concludes that the safety manual guidelines for schools were greatly ignored.

5.2 Recommendations

The study therefore recommends:

- i) Each dormitory should have a door at each end and an additional emergency exit at the middle. It should be clearly labeled: "Emergency Exit".
- ii) Dormitory doors should be locked at all times when learners are in class or on the playing fields. The keys to the doors should be kept by dormitory Master / Mistress or the dormitory prefect.
- iii) Dormitory windows must be without grills and should be easy to open outwards.
- iv) Fire extinguishing equipment should be functioning and placed at each exit with fire alarms fitted at easily accessible points.
- v) Double deckers or Bunk beds should be strong and firm and fitted with side-grills to protect young learners against falling off.
- vi) The establishment of a monitoring and evaluation section to enforce compliance with policies and ensure accountability by school managements.
- vii) The establishment of safety policies by individual schools based on uniqueness of the school
- viii) All boarding schools should be re-inspected to ensure basic standards for boarding are met and those that do not meet the basic standards should be registered or converted to day school.

- ix) Schools should adopt appropriate security measures including perimeter fencing and 24 - hour manning, CCTV surveillance, sniffer dog checks, metal detectors, random dog security patrols, adequate security lighting and engage vetted security guards.
- x) Fire drills for students and staffs at least twice a year.
- xi) Implementation of the recommendations of parts of Wangai and Koech task force reports dealing with security issues in schools.

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