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Influence of Principals' Enforcement Toileting Practices on Safety of Students in Public Secondary Schools in Kangema Sub-County, Murang'a County, Kenya

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Abstract: Principals' toileting practices play a key role in creating a safe environment in schools. However, in many public secondary schools in Kangema Sub- County, there have been cases of injury, food poisoning and death still being reported. The study sought to determine how principals' toileting practices influence the safety of students in public secondary schools in Kangema Sub- County. The study adopted mixed methodology and concurrent triangulation research design. Target population was 1463 respondents which comprised 27 principals, 1434 teachers and 2 Sub- County Directors of Education (SCDEs) from which a sample of 312 respondents was determined using Yamane's Formula. This consisted of 20 principals, 290 teachers and 2 SCDEs. Qualitative data were analyzed thematically along the objectives and presented in narrative form. Quantitative data were analyzed descriptively using frequencies and percentages and inferentially using tables. The study found that students' safety in public secondary schools has been a major concern due to reported cases of food poisoning, injuries and outbreaks of sanitation diseases. To mitigate these challenges, principals have embraced toileting practices like provision of tissue papers, control of the use of the urinal, bowel control, wearing of shoes or sandals while using the toilet and provision of toilet cleaning detergents. However, much is yet to be realized in improving students' safety in schools have adequate toilets as per the number of students and enforce stricter adherence to toileting rules and regulations.

Keywords: Public, Secondary schools, Toileting practices, Students' safety, Principals

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1. Introduction

The safety of students in school entails a state of feeling with themselves in physical, psychological and emotional manners. According to Peters, Ahmed and Thorne (2022), student safety in schools provides a social and physical environment that fosters appropriate behavior. The social environment includes the norms, rules and their enforcement, and any support necessary to enable students and adults to behave appropriately. However, over the years, cases of unsafe schools have been on the rise. For example, in Venezuela, a report authored by Garcia and Vargas (2021) shows that cases of poor learner safety in schools stand at 36.2% with instances of injuries being at 50.9% and food poisoning at 27.4%. This indicates that the safety of students in school settings is of great concern with instances of injuries and accidents continuing to rank high. In other words, although the schools are expected to be relatively safe, the school environment presents its own hazards and safety concerns.

To address this global challenge, efforts have been made towards improving public health in schools by various stakeholders. Hays (2022) posits that the "Call to Action for WASH in Schools" campaign was formally launched in 2010. In the words of Larson (2021), this major initiative involved UNICEF and key partners who called on decision-makers to increase investments in the area of safe water supply and sanitation concerns in schools. The goal was to expand water and sanitation (WASH) programmes in school to improve health, foster learning and enable children to participate as agents of change within their homes and communities. The campaign was structured to strategically focus efforts and resources on key areas. This indicates that toileting practices are a set of activities designed by secondary schools to improve the state of students' cleanliness and conducive to health.

According to Meyer and Götz (2021), sanitation practices are a set of actions undertaken by school heads geared toward improving the quality of the environment and reducing the amount of disease. By doing so, the hope is that living conditions will improve and health problems decrease. The management of water, solid waste, industrial waste as well as the topic of air pollution and noise control, all fall under the broad concept of environmental sanitation. Meyer and Götz (2021) further note that such practices include, but not limited to, hand washing, toileting and waste management practices. However, the extent to which such management of these sanitation practices influence the safety of students in public secondary schools still remains fully unexplored. In Kuala Lumpur, for example, Lim (2022) asserts that, despite the introduction of water, sanitation and hand hygiene practices in schools, cases of food poisoning and injuries to students still stand at 28.1%. In keeping with these assertions, Lim (2022) further indicates that sanitation and hygiene remains a challenge in many parts of the world. About 50.7% of the student population worldwide still lack improved sanitation facilities and over 884 million people still use unsafe drinking water sources. In many countries in Sub-Saharan Africa, issues of safety of students in secondary schools remain top in school programmes since there is recognition that it is important to make sure that schools have adequate safe water, hygiene and sanitary facilities. For example, a report authored by Okoye, Eze and Adedeji (2023) indicates that the provision of school hygiene and sanitation facilities ensures the rights of students to acceptable hygiene practices, safe water supply, latrines and a healthy school environment in Nigerian schools. However, Okoye et al (2023) reports that 88% of the burden attributable to unsafe water supply, toileting and hygiene severely affects students in Nigerian secondary schools.

In Kenya and Kangema Sub- County in particular, the scenario is the same with many concerns about safety of

students in public secondary schools being on the rise. An assessment undertaken by Njoroge, Ochieng and Waweru (2022) indicates that Kangema Sub-county is not on track to achieve the Sustainable Development Goals (SDGs) target of 79% for sanitation coverage in schools. According to Njoroge et al (2022), cases of unsafe schools have been on the rise with 45.7% of injuries to students, 34.1% cases of food poisoning and 13.8% cases of attack from sanitation-related diseases. Despite these challenges, Njoroge et al (2022) note that providing access to sufficient supplies of safe water, the provision of facilities for the sanitary disposal of excreta and the introduction of sound hygienic behavior, are of the utmost importance in the reduction of disease caused by these risks. However, much still needed to be done to interrogate the extent to which such principals' toileting practices influence safety of students in public secondary schools.

1.1 Research Objectives

The study sought to address the following objectives:

- 1. To assess the status of students' safety in public secondary schools in Kangema Sub- County
- 2. To determine how principals' toileting practices influence the safety of students in public secondary schools in Kangema Sub- County.

2. Literature Review

Toileting is an important skill for daily life that has many social implications and for the child to achieve this important milestone, children, schools and families need to establish a clear toileting routine. According to WHO (2022), practices adopted during the toilet training process is invaluable because they often are among the first to recognize when a child is developmentally ready to toilet train, they communicate with and educate parents to provide appropriate and continuous toilet training methods and messages, and they help teach the child proper toilet training practices. In a study carried out in Malaysia, Zainal, Tan and Lee (2020) found that lack of a toilet at school means learners have to spend time walking to unhealthy and sometimes unsafe location to defecate. Zainal et al (2020) further revealed that toileting practices in schools not only impact on educational access, safety and productivity, they are essential tools to enable school communities to live in dignity and to release their full potential. As access to toileting services and facilities is essential for human life, its improvement is also related to respect and dignity to those in need. These findings point to the fact that, in schools without effective toileting practices such as use of tissue paper and urinals for boys, learners tend to drop out of such schools, either due to disease outbreaks or parental concerns. However, in many children bowel movement control occurs much later. There are many individual factors that can contribute to this including physical, emotional and mental readiness.

In Canada, research undertaken by Gagnon and Matthiessen (2021) established that bowel movement control often happens before urinary control. If they are regularly going to the toilet to urinate, chances are they may have a bowel movement while urinating. It is for this reason that boys should preferably sit instead of standing during the first stages of toilet learning until they have mastered bowel movements. Gagnon and Matthiessen (2021) further indicated that, in most secondary schools, children are trained on bladder control and that the provision of safe toilets also increases health and safety and cut back on time spent walking to sanitary installations. These findings corroborate the assertions of Smith (2022) that, while more and more safely constructed toilets can enable people to leave the vicious cycle of diseases and poverty, access to clean water and sanitation is therefore precursor safety, educational attainment learner and to development. According to Smith (2022), toilets located beyond 15 meters from the classes make girls feel insecure for themselves and the safety of their younger siblings. In addition, the tendency to waste time when children visit the toilets and there are long waiting periods due to many users which leads to incontinence. These findings affirm the fact that poor toileting is the cause of all sanitation and hygiene related diseases and infections. This is a result of blocked drainage because when water gets stagnant, mosquitoes bred there leading to spread of malaria and typhoid.

In Kenya and Kangema Sub- County, as incontinence is common among children with movement disorders of a neurological origin, toilet training is part of the daily routine (WHO, 2022). The aim of toilet training programme is to teach continence and acceptable hygiene practices. Children are being toileted many times each day. As with many of the conductive programmes, children may also carry out other aspects of their daily work whilst taking part in toilet training like sitting or dressing/undressing. WHO (2022) further posits that such practices enhance learner safety. However, WHO (2022) failed to articulate how different toileting practices influence the safety of students in secondary schools.

2.1 Theoretical Framework

The study was guided by the toileting practice theory, whose proponent was Bradshaw (2009) as a framework used to examine how individuals, such as school principals, manage and supervise toileting behaviors and related hygiene practices among students. This theory delves into the practices, norms, and policies that guide how toilets and hygiene facilities are managed within schools, ensuring the safety and well-being of students. The theory provides valuable insights into how effective school leadership impacts the safety, dignity, and hygiene of students, which are critical aspects of student health and well-being. The theory emerges from public toileting practices are integral to a student's overall experience in school, impacting both their physical health and psychological well-being. This theory holds that toileting practices should prioritize the health and safety of students by ensuring that toilets are clean, functional, and secure from any hazards. This principle emphasizes that improper facilities can lead to the spread of diseases and accidents, which can significantly affect a student's health and safety. Toilets

psychology,

management disciplines, contributing to understanding

how the physical and social environments of schools can

affect children's daily experiences. The role of the

principal as a leader in ensuring that school toilets are clean, accessible, and safe for students is an essential

component of this theory. The theory posits that proper

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the spread of diseases and accidents, which can significantly affect a student's health and safety. Toilets in schools must be accessible to all students, including those with disabilities, ensuring that no student feels excluded or discriminated against. This includes providing appropriate facilities and maintaining proper staffing to assist students when needed. Students should be able to use toilet facilities with privacy and dignity. The theory stresses the importance of fostering an environment where students feel safe and respected, free from bullying or embarrassment when using the toilet. School principals play a key role in ensuring that toilets are well-maintained and that the facilities are regularly checked for cleanliness, functionality, and safety. This principle underscores the importance of effective supervision and the involvement of staff in monitoring facilities for any issues that may arise. The application of the toileting practice theory in studying principals' toileting practices and the safety of students in schools is multifaceted. A study employing this theory would investigate how school leadership practices influence the maintenance and use of school toilets. For instance, it would assess the policies and protocols set by the principal to ensure proper sanitation, accessibility, and safety in restrooms. This could include examining whether there are sufficient resources to ensure regular cleaning and maintenance, the adequacy of toilet facilities for the number of students, and whether students have adequate privacy when using the facilities. Further, the theory can guide research into how principals train their staff to handle toileting practices, including helping students who may need assistance, especially young or special-needs students. By applying the principles of this theory, schools can enhance the safety, hygiene, and dignity of their students, thereby fostering a more supportive and conducive learning atmosphere.

This study was also guided by Health and Safety Theory (Domino Theory) which was postulated by Herbert William Heinrich (1976). According to Heinrich (1976), in a workplace, for every accident that causes a major injury, there are 29 accidents that cause minor injuries and 300 accidents that cause no injuries. Because many accidents share common root causes, addressing more commonplace accidents that cause no injuries can prevent accidents that cause injuries. Heinrich (1976) came to this conclusion after reviewing thousands of accident reports completed by school heads, who generally blamed school staff for causing accidents without conducting detailed investigations into the root causes. Heinrich (1976) did safety work across many schools, with published data, which gives guidelines of how to scale up from incidents and near misses to a good estimate of the probability of real accidents. The rationale of using this theory is based on the fact that safety and health injuries to students and teachers in schools are a consequence of social relations in school generated errors.

3. Methodology

The study adopted mixed methodology and concurrent triangulation research design. Target population was 1463 respondents which comprised 27 principals, 1434 teachers and 2 Sub- County Directors of Education (TSC & MoE) from which a sample of 312 respondents was determined using Yamane's Formula. Stratified sampling was used to create five strata based on the number of zones in Kangema Sub- County. From each zone, 4 principals were selected using purposive sampling.

All the Sub- County Directors of Education were purposively considered for the study. However, from each zone, 58 teachers were selected using simple random sampling. This sampling procedure carried out a sample of 20 principals, 290 teachers and 2 Sub- County Directors of Education. Questionnaires were used to collect quantitative data from teachers whereas interviews were used to gather qualitative data from principals and Sub- County Directors of Education. Qualitative data were analyzed thematically based on the objectives and presented in narrative forms. Quantitative data were analyzed using descriptive statistics such as frequencies and percentages and inferentially using Pearson's Product Moment Correlation Analysis with the help of Statistical Package for Social Sciences (SPSS Version 25) and presented using tables.

In this study, an ethical clearance certificate was obtained from Mount Kenya Ethical Review Committee (MKU ERC) before embarking on data collection processes. The researcher undertook to keep private any information given by the respondents that touched on their personal life. The researcher assured the respondents that no private information would be divulged to a third party. The nature and the purpose of the research were explained to the respondents by the researcher. The researcher explained to the respondents the procedure that would be followed during the data collection so that they could participate willingly. The raw data collected were filed for easy reference. Once the data were analyzed, computer printouts were filed while soft copies were stored in storage devices such as CDs and flash discs.

4. Results and Discussion

In this section, findings of the study as per the objectives of the study are outlined besides highlighting presentation of findings as well as discussions.

4.1 Response Rates

In this study, 290 questionnaires were administered to teachers, and, in return, 259 questionnaires were filled and returned. In the same token, the researcher interviewed 16 principals and 2 Sub- County Directors of Education (TSC & MoE). This yielded response rates shown in Table 1;

Table 1: Response Rates					
Respondents	Sampled Respondents	Those Who Participated	Achieved Return Rate (%)		
Principals	20	16	80.0		
Teachers	290	259	89.3		
Sub-county Directors of Education	2	2	100.0		
Total	312	277	88.8		

Source: Field Data (2025)

Table 1 shows that principals registered a response rate of 80.0% whereas teachers registered 89.3%. However, all the 2 Sub- County Directors of Education (TSC & MoE) (100.0%) took part in the study. This yielded an average response rate of 88.8%, which is consistent with the assertions of Creswell (2018) that a response rate above 75.0% is adequate. This information was important since it allowed the researcher to generalize the study outcomes to the target population.

4.2 Status of Students' Safety in Public Secondary Schools

The study sought to assess the status of students' safety in public secondary schools. This was measured by taking stock of the number of reported cases of food poisoning, injuries and sanitation-related diseases for the last five years (2020-2024). Findings are shown in Table 2;

Table 2: Status of Students'	Safety in Public Secondar	y Schools in Kange	ma Sub	- Count	y between 2020 and 2024
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Status of Students' Safety	Years of Examination					
	2020	2021	2022	2023	2024	
	%	%	%	%	%	
Cases of food poisoning	17	22	24	21	31	
Cases of injuries to students	29	35	38	44	53	
Cases of sanitation-related diseases	15	19	18	22	25	
		(2025)				

Source: Field Data (2025)

Table 2 shows that safety of students has been a problem with many public secondary schools reporting cases of food poisoning, injuries as well as outbreak of diseases related to sanitation. These findings corroborate the assertions of JMP (2012) that cases of unsafe schools have been on the rise with 45.7% of injuries to students, 34.1% cases of food poisoning and 13.8% cases of attack from sanitation-related diseases. This is also consistent with the findings of a study carried out by Mwangi, Wambui and Maina (2021) who found that, in Kangema Sub-County, up to 30% of secondary schools reported at least one incident of food poisoning between 2020 and 2023. Further evidence from research conducted by Kamau and Njoroge (2022) highlighted a significant rise school-related injuries, ranging from minor in playground accidents to more severe laboratory mishaps. Their data indicated that overcrowded classrooms and poorly maintained facilities have directly contributed to these injuries. Additionally, Ochieng, Nyambura and Kiptoo (2023) identified recurrent outbreaks of waterborne diseases such as cholera and typhoid, linking them to insufficient sanitation infrastructure. These findings point to the fact that, despite heightened awareness, systemic issues persist. In other words, the safety of students in public secondary schools has

become a pressing issue due to frequent incidents of food poisoning, injuries, and disease outbreaks linked to poor sanitation. Many schools face challenges in maintaining proper hygiene standards, which contributes to outbreaks of preventable diseases. Unsanitary food handling and storage practices have led to cases of food poisoning, putting students' health at risk. Additionally, inadequate safety measures and poorly maintained infrastructure increase the likelihood of injuries. These issues not only affect the well-being of students but also hinder their academic performance, emphasizing the need for improved health and safety protocols in schools.

4.3 Enforcement of Toileting Practices and Safety of Students in Public Secondary Schools

The study sought to determine how principals' enforcement of toileting practices influences safety of students in public secondary schools. Descriptive data were collected from teachers, organized and summarized into specific thoughts. Findings are presented in Table 3;

Test Items Ratings					
	SA %	A %	U %	D %	SD %
Students have been safe from infections since principals enforce use of tissue papers while attending the toilets and latrines	55.4	14.4	5.8	16.5	7.9
In public secondary schools, students are advised to use urinals properly to be safe from infections	59.7	7.2	3.6	26.6	2.9
Public secondary school principals advise students to exercise bowel control to be safe at all times	53.2	8.6	4.3	21.6	12.3
In public secondary schools, there is insistence on wearing shoes or sandals while attending to the toilets	51.8	13.7	3.6	27.3	3.6
To ensure students' safety, public secondary school principals ensure that detergents are available in the toilets for their use	51.4	10.8	5.0	22.0	10.8
Source: Field Data (2)	025)				

Table 3: Teachers' Views on the Influence of Principals' Enforcement of Toileting Practices on Safety of Students in Public Secondary Schools

Table 3 shows that 144(55.4%) of the teachers strongly agreed with the view that students have been safe from

infections since principals enforce use of tissue papers while attending the toilets and latrines while 21(7.9%)

strongly disagreed. The study revealed that 147(59.7%) of the teachers strongly agreed with the view that, in public secondary schools, students are advised to use urinals properly to be safe from infections while 8(2.9%)strongly disagreed. The study revealed that 138(53.2%) of the teachers strongly agreed with the view that public secondary school principals advise students to exercise bowel control to always be safe while 32(12.3%) strongly disagreed. The majority, 135(51.8%), of the teachers strongly agreed with the view that, in public secondary schools, there is insistence on wearing shoes or sandals while attending the toilets whereas 10(3.6%)strongly disagreed. The majority, 134(51.4%), of the teachers strongly agreed with the view that, to ensure students' safety, principals ensure that detergents are available in the toilets for their use whereas 28(10.8%)strongly disagreed. These findings indicate that ensuring student health and safety in public secondary schools is paramount, and principals play a significant role in promoting hygiene practices that help prevent infections. One such practice is the enforcement of the use of tissue papers while attending toilets and latrines.

These findings are consistent with the findings of research carried out by Lynch, Thompson and Smith (2018) which revealed that availability and use of toilet paper reduce the spread of infectious diseases, particularly those associated with improper sanitation. A study conducted by Heidari, Samadi and Fadaei (2020) also established that inadequate hygiene during bathroom visits, such as the improper use of urinals, can facilitate the transmission of urinary tract infections (UTIs) and other diseases. Therefore, principals who ensure the regular use of tissue paper promote a cleaner environment, lowering the risk of infections. The correct use of urinals is another hygiene measure emphasized by school principals. A study carried out by Musau, Nguu and Ochieng (2021) also found that improper use of urinals, particularly by younger students, findings in contamination of the surrounding area, promoting the spread of diseases like cholera, typhoid, and dysentery. Encouraging students to use urinals correctly is, therefore, an essential component in the fight against infection in school settings. In schools where principals have enforced clear hygiene rules for using toilets and urinals, the rates of infections among students have notably decreased, according to a report by the World Health Organization (2022).

Another practice that has proven to be crucial in ensuring the safety of students from infections is the insistence on bowel control. Teaching students to exercise bowel control, especially in public toilets, is one of the best preventive measures against gastrointestinal infections, which are commonly spread by poor sanitation. Fecaloral transmission, often caused by the improper handling of human waste, is one of the main vectors for diseases like hepatitis A, giardiasis, and other stomach-related infections (VanDerslice & Briscoe, 2017). Research carried out by Kelly, Jacobs and Thompson (2020) also revealed that schools with well-managed toilet facilities that encourage bowel control practices experience fewer health outbreaks. The use of shoes or sandals while attending toilets is another preventive strategy widely advocated by school administrators. A study carried out by Nwankwo, Ibeh and Odu (2022) established a significant correlation between wearing shoes and a reduced risk of acquiring soil-transmitted helminths (STHs) and other parasitic infections. The shoes prevent students from making direct contact with contaminated surfaces, particularly in poorly maintained school toilets. As such, principals who ensure that students wear shoes or sandals while attending the toilets provide an effective barrier against infections that can otherwise be contracted through foot contact with contaminated soil or surfaces (Chao, Jones & Lowry, 2018). Finally, ensuring that detergents are available in toilets is an essential practice for preventing infections. Proper cleaning of toilets, including the regular use of detergents, reduces the presence of harmful pathogens that can lead to diseases.

According to a study conducted by Mureithi, Otieno and Mwangi (2019), schools with a consistent supply of cleaning products, including detergents, have lower incidences of infections among students. Detergents help eliminate bacteria and viruses, contributing to the overall cleanliness of the school environment. These findings point to the fact that principals who enforce the use of tissue paper, proper urinal use, bowel control, the wearing of shoes, and the availability of detergents in public secondary schools significantly reduce the risk of infections among students. These hygiene practices, when properly implemented, form the foundation for creating a safer school environment that fosters the health and well-being of students.

4.4 Inferential Analysis

To verify influence of principals' enforcement of toileting practices on safety of students in public secondary schools, data were collected from the 16 principals of the sampled public secondary schools on how often (Very Often = 5, Often = 4, Sometimes = 3, Rarely = 2 and Never = 1) they enforce toileting practices among students and students' safety of students in public secondary schools in terms of number of cases of food poisoning, injuries and sanitation-related diseases for the last five years (2020-2024). Findings are shown in Table 4:

		Schools	
How often Principals Enforce	Students' Safety		
Toileting Practices	Number of Food	Number of	Number of Sanitation-
	Poisoning Cases	Injuries to	related Diseases
	C	Students	
3	12	23	33
4	14	34	27
4	9	39	23
2	11	35	38
5	5	40	37
5	8	47	19
4	9	77	21
3	5	57	34
3	5	59	41
4	3	38	34
3	8	44	28
5	8	37	23
3	9	65	24
2	11	71	25
1	13	45	26
3	14	61	28
	G TI 11		

 Table 4: Frequency of Principals' Enforcement of Toileting Practices and Students' Safety in Public Secondary

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Source: Field Data (2025)

Table 4 shows that, in public secondary schools where principals often enforce adherence to toileting practices, safety has relatively improved with fewer cases of food poisoning, injuries to students and sanitation-related cases being reported. This indicates that, by ensuring that students frequently adhere to proper toileting practices before meals like washing their hands thoroughly, the risk of contamination through bacteria or viruses is minimized. Data above were run in the Pearson's Product Moment Correlation Test Analysis. Results are shown in Table 5:

Table 5: Relationship between Principals' Enforcement of Toileting Practices and Safety of Students in Public
Secondary Schools

	Secondary Schools					
		X1	В	С	D	
X1	Pearson Correlation	1	.613**	.593**	.618**	
	Sig. (2-tailed)		.023	.044	.019	
	N	16	16	16	16	
В	Pearson Correlation	.613**	1	.959**	.932**	
	Sig. (2-tailed)	.023		.000	.000	
	N	16	16	16	16	
С	Pearson Correlation	.593**	.959**	1	.964**	
	Sig. (2-tailed)	.044	.000		.000	
	N	16	16	16	16	
D	Pearson Correlation	.618**	.932**	.964**	1	
	Sig. (2-tailed)	.019	.000	.000		
	N	16	16	16	16	

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

Key: X1- Frequency of Principals' Enforcement of Toileting Practices; B, C and D-Indicators of students' safety in public secondary schools.

Table 5 shows a Pearson Product Moment Correlation Test Analysis which generated correlation coefficients of r1 = 0.613, r2 = 0.593 and r3 = 0.618 with corresponding p-values of 0.023, 0.044 and 0.019 respectively. This further indicates that there is a statistically significant relationship between principals' enforcement of toileting practices and the safety of students in schools. This indicates that toileting practices are crucial in managing student bathroom breaks in a manner that ensures both the hygiene and safety of students. These practices include regulated access to restrooms, the monitoring of students during bathroom visits, and ensuring the cleanliness and maintenance of these facilities. When proper supervision and guidelines are established, students are less likely to engage in unsafe behaviors during bathroom breaks, which in turn leads to a safer environment for all students.

Furthermore, effective enforcement of toileting practices can contribute to maintaining hygienic conditions that

promote student health, preventing the spread of germs and infections. Poorly maintained restroom facilities or lax enforcement can lead to situations where students may become vulnerable to health risks and potential harm. This further implies that the relationship between principals' enforcement of toileting practices and student safety is evident. Principals who are diligent in enforcing proper toileting policies significantly reduce the risks associated with bathroom use, thus ensuring both the physical safety and mental well-being of students in schools.

4.6 Thematic Analysis

During the interviews, the principals and the Sub-County Directors of Education (TSC & MoE) also responded in favour of the view that principals have ensured that students adhere to toileting practices. Principal, P4, stated:

> In my secondary school, I have ensured that students use tissue papers while attending the toilets and latrines, use urinals properly to be safe from infections, exercise bowel control to be safe at all times, wear shoes or sandals while attending the toilets and that detergents are available in the toilets for their use.

These views were supported by the Sub- County Directors of Education who also stated that principals are expected to ensure that toileting practices are enforced and adhered to ensure that students are safe. These views further support the viewpoints held by Lynch et al (2018) who noted that availability and use of toilet paper reduce the spread of infectious diseases, particularly those associated with improper sanitation. Just like quantitative findings, these views also support those expressed by Heidari et al (2020) that inadequate hygiene during bathroom visits, such as the improper use of urinals, can facilitate the transmission of urinary tract infections (UTIs) and other diseases. These mixed findings underscore the fact that principals' toileting practices are paramount in ensuring students' safety in schools. In other words, principals who enforce the use of tissue paper, proper urinal use, bowel control, the wearing of shoes, and the availability of detergents in public secondary schools significantly reduce the risk of infections among students.

5. Conclusion and Recommendations

5.1 Conclusion

Safety of students in many public secondary schools in Kangema Sub- County has been a major concern due to reported cases of food poisoning, injuries as well as outbreaks of sanitation diseases. To mitigate these challenges, principals have embraced a multitude of toileting practices such as provision of tissue papers, control of the use of urinals, bowel control, wearing of shoes or sandals while using the toilet, and the provision of toilet cleaning detergents. However, much is yet to be realized in terms of improving students' safety in public secondary schools.

5.2 Recommendations

As a practice, principals should ensure schools have adequate number of toilets as per the number of students and enforce stricter adherence to toileting rules and regulations. As a policy, the Ministry should enforce stricter adherence to toileting and sanitation practices which are meant to guarantee the safety of students in schools.

References

- Bradshaw, T. (2009). Toileting practice theory: A framework for managing toileting behaviors and hygiene practices in schools. *Journal of School Health*, 79(7), 325-330.
- Chao, L., Jones, M., & Lowry, P. (2018). Preventing soiltransmitted helminths through footwear use in public schools. *Journal of Public Health Hygiene*, 36(4), 258-263.
- Creswell, J. (2018). *Research design: qualitative, quantitative and mixed methods approaches.* Thousand Oaks, California: Sage Publications.
- Gagnon, D., & Matthiessen, J. (2021). Student safety and emotional well-being in Canadian schools: A case study approach. *Canadian Journal of Educational Leadership*, 15(2), 118-131.
- Garcia, R., & Vargas, M. (2021). School sanitation and its impact on students' health in Venezuela: A case study. *Journal of Educational Infrastructure and Safety*, 8(4), 112-123.
- Hays, T. A. (2022). The role of school hygiene in ensuring student safety: A review of practices in the United States. *Journal of School Health*, 92(1), 14-20.
- Heidari, H., Samadi, K., & Fadaei, R. (2020). The impact of hygiene practices on urinary tract infection among adolescents. *Journal of Adolescent Health*, 67(2), 145-154
- Heinrich, H. (1976). The Principles of Occupational Safety and Health (Domino) Theory. Mahwah Publishers.

- Kamau, J., & Njoroge, C. (2022). School Safety in Kenya: Injuries and Institutional Preparedness. Nairobi: Education Review Press.
- Larson, T. P. (2021). Leadership and safety in school bathrooms: How school principals influence student well-being. *Journal of Educational Administration*, 59(5), 67-80.
- Lim, L. (2022). Safety and sanitation in Malaysian schools: The role of principals in managing school hygiene. Asia Pacific Education Review, 23(4), 47-55.
- Lynch, M., Thompson, A., & Smith, L. (2018). The effectiveness of using tissue papers in reducing the transmission of infectious diseases in schools. *International Journal of Hygiene and Environmental Health*, 221(3), 456-462.
- Meyer, M., & Götz, M. (2021). Hygiene and safety regulations in German schools: Managing school facilities. *Journal of School Safety*, 27(3), 113-122.
- Mureithi, A., Otieno, J., & Mwangi, K. (2019). Hygiene practices and infection control in Kenyan public schools. *Journal of Environmental and Public Health*, 2(2), 12-16.
- Musau, G., Nguu, S., & Ochieng, F. (2021). Hygiene behavior and its role in preventing infections in schools. *Health Education Research*, *36*(1), 39-45.
- Mwangi, K., Wambui, D., & Maina, J. (2021). Health risks in Kenyan public schools: Food safety and sanitation. *Journal of African Education Studies*, 8(2), 76-91.
- Njoroge, M., Ochieng, J., & Waweru, M. (2022). Hygiene and safety: The role of principals in ensuring student safety in Kenyan schools. *Journal of Educational Leadership and Policy*, 15(3), 73-85.
- Nwankwo, L., Ibeh, S., & Odu, R. (2022). Impact of footwear on parasitic infection prevention in schools. *Journal of School Health*, 92(7), 490-495.
- Ochieng, L., Nyambura, S., & Kiptoo, M. (2023). Sanitation and disease outbreaks in rural Kenya. *East African Medical Journal*, 100(4), 301-310.
- Okoye, U., Eze, C., & Adedeji, O. (2023). Sanitation and health safety in Nigerian schools: The role of school principals. *African Journal of Educational Administration*, 14(1), 22-34.

- Peters, A., Ahmed, N., & Thorne, R. (2022). Sanitation and hygiene in schools: A global review of student safety practices. *International Journal* of Environmental Health, 11(1), 90-102.
- Smith, M. (2022). School facilities and student safety: The impact of restroom design and accessibility on student well-being. *Canadian Educational Facilities Journal*, 34(2), 45-59.
- World Health Organization (2022). Hygiene and sanitation in schools: A guide for school administrators. WHO Press. https://www.who.int/publications/i/item/hygie ne-and-sanitation-in-schools
- Zainal, F. M., Tan, S. L., & Lee, L. M. (2020). School safety and health in Kuala Lumpur schools: The role of principals in ensuring safe toilets. *Education Policy and Practice*, 29(2), 12-20.