



Current Safety and Hygiene Practices and Trends in Primary Schools in the Midlands Province of Zimbabwe

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Abstract: *In Zimbabwe, the health of learners is increasingly at risk of contracting diseases and injuries emanating from their involvement during cleaning activities at school without personal protective equipment (PPE). The current study assesses the safety and hygiene practices and trends in primary schools by not only assessing facilities but also the cleaning activities learners engage in and strategies being employed to safeguard the health and safety of learners in the school environment. An explorative case study design was adopted involving eight purposively selected primary schools. Data were collected through semi-structured interviews, observation guides, and document analysis from heads of the eight schools. The data were analysed thematically and then presented qualitatively. Findings indicated that a lack of resources, and technical, as well as administrative know-how, is hindering the implementation of measures necessary to safeguard the health and safety of learners during cleaning activities. The findings also indicate that there is little or no government, parent, and community involvement in health and safety activities in primary schools. The study recommends that, as learners cannot avoid participating in school cleaning activities because it is a cross-cutting aspect of the school curriculum and general life skills training; efforts be made to ensure their safety through the use of appropriate PPE, and instead of waiting until their coffers hold enough money to implement big projects, schools should start with small changes, which are financially feasible.*

Keywords: Hygiene practices, Sanitation, Communicable diseases, Hand washing, Personal protective clothing

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1. Introduction

Learners need to be sustainably healthy for them to fully utilise the educational opportunities open to them. Therefore, the health and well-being of learners is a fundamental issue in education, as confirmed by a succession of international policy instruments, such as the United Nations Convention on the Rights of the Child; the concept of child-friendly schools by the United Nations Children's Fund's (UNICEF); Millennium Development Goal number 7 (MDG 7), Target 10; as well as the Zimbabwe School Health Policy (ZHSP) of 2018. Yet evidence suggests that schools around the world have difficulty meeting the critical physical, mental, and social health needs of children as

sanitation coverage targets were not met, particularly in developing countries (Poague, Blanford & Anthony, 2022).

The researchers' observations over more than two decades of teaching show that in Zimbabwean schools, learners take turns to clean classrooms, toilets, and school grounds as part of their life training, for their health and safety, as a way of saving money by the school authorities and as a means of punishment (Gonese, 2006). However, during the cleaning activities, learners are exposed to contaminated fluids, offensive smells, detergents, dust, excessive sunlight, and sharp tools as they work without any form of protection (CDC, 2019). Regrettably, despite the lack of protection, learners cannot avoid participating in school cleaning activities

because it is a cross-cutting aspect of the school curriculum and general life skills training. This practice greatly compromises the safety and health, as well as the academic performance of learners (Pradhan, Mughis, Ali, Naseem & Karmaliani, 2020; Ranga & Majra 2020; Meher & Nimonkar, 2018; Obong, Okey, Aniah, & Okaba, 2010).

Efforts are being made by NGOs in Zimbabwe, such as WASH, to address safety and health hazards in schools but they seem not to adequately address the risks faced by learners as they undertake cleaning activities. A substantial body of research (Marembo, Chitando, Sreenivasan, Makwara, Machekanyanga, Nyabyenda, Mukeredzi, Munyanyi, Hidle, Chingwena, Chigwena, Atuhebwe, Matzger, Chigerwe, Shaum, Date, Garone, Chonzi, & Manangazira, 2022; Ncube, Kanda, Chahwanda, Marechera & Ngwenya, 2020; ReliefWeb, 2019) argue that if such efforts do not embrace good hygiene behaviors, learners will continue to be exposed to health and safety hazards in the school environment. The level to which schools in Zimbabwe are struggling with the provision of sanitation and hygiene issues was revealed by the advent of the global COVID-19 pandemic which necessitated the use of clean and safe water as well as face masks (Poague, Blanford & Anthony, 2022).

To the best of the researchers' knowledge, earlier studies (Dube & January, 2012; Mutungwe, Tsvere, Dondo, & Munikwa, 2011; Gonese, 2006) that aimed at improving hygiene literacy and practices in schools, have not taken the holistic approach as conceptualized in this research. This study, therefore, undertakes a comprehensive assessment of safety and hygiene practices in primary schools by not only assessing facilities but also the cleaning activities learners engage in. Given the paucity of research into health and safety practices in the school environment in Zimbabwe, this study sets out to provide a basis for deep empirical understanding of the risks of injury and contraction of diseases faced by learners in school environments. This potentially facilitates formulation by health and education policymakers of evidence-based intervention strategies to mitigate the health and safety risks so that learners can make full use of education opportunities open to them.

The following research objectives were designed to guide researchers through the whole study:

1. To identify the current safety practices in primary schools in the Midlands Province of Zimbabwe.
2. To assess the current hygiene practices in primary schools in the Midlands Province of Zimbabwe.
3. To seek suggestions on how safety and hygiene practices in primary schools can be improved.

1.2 Theoretical framework

Two complementary theories helped to explain the ways in which the environment can affect health and safety and the role clothing plays in protecting individuals against environmental conditions. This study is guided by Bronfenbrenner's bio-ecological theory, a theory of educational psychology that studies human development over time (Bronfenbrenner, 1994) which was influenced by fellow developmental psychologist Lev Vygotsky (Addison, 1992). A fundamental principle of the theory is premised on the suggestion that interactions between an individual and their environment shape the development of that individual over time. According to Crawford (2020) & Markham and Aveyard (2000), this interaction enables learners to learn, formally and informally. Informal education includes the skills learners acquire outside the classroom such as safe use and care of various facilities in the school.

The Utility or Protection theory by Dunlap (1928) maintains that clothing had its origin in attempts to protect the body from injurious or unpleasant features of the environment. The Protection Theory of clothing includes both physical and psychological protection. Dunlap observed that practically man is not equipped with a natural protective coat so he must devise his own, hence the development of personal protective clothing (PPE). Clothing can, therefore, provide a hygienic barrier, keeping infectious and toxic materials away from the body, providing protection from ultraviolet radiation, and protecting the wearer from rough surfaces, insect bites, splinters, thorns, and prickles (Reddy, Valderrama & Kuhar, 2019).

2. Literature Review

2.1 The concept of a healthy and safe school environment

A healthy and safe school environment encompasses the school buildings and their vicinity, as well as biological and chemical agents that can be hazardous and detrimental to the health and safety of learners and staff (Barrett, Treves, Shmis, Ambasz & Ustinova, 2019). A safe school is, therefore, a healthy school in that it is physically, psychologically, and socio-emotionally safe, free from danger, and a place in which teachers and learners work without fear of exposure to diseases or injuries (Prinsloo, 2005). As pointed out by Pradhan, Mughis, Ali, Naseem & Karmaliani (2020), overall schools' physical environment has a strong influence on children's safety and hygiene practices.

2.2 Safety practices in primary schools

Jonathan and Mbogo (2016) conducted a study on the Mbooni West district which focused on the health and safety of teachers in secondary schools in the region. The motivation for the study was that many secondary school administrators did not involve the teaching staff when recommending policies and procedures for curbing safety hazards. This means if teachers are ill-prepared to tackle health and safety issues then the whole school environment is in a state of non-preparedness (Rutter 2010). Teachers should, therefore, demand to be involved in matters of school health and safety as they would be required to account for any response to a dangerous mishap that may occur in the school. School teachers are effective enforcers of health and safety practices and education in schools their inclusion in policymaking is significant in that they will feel valued as important stakeholders (Cherukupalli, 2018).

Ngwenya (2020) posits that researchers have found that environmental education is still at an inadequate level in terms of curriculum presence, consistency, depth, and impact. Where environmental education has been placed in the syllabus, teachers have been found wanting in terms of applying concepts to their immediate environment, the school. Therefore, much education is driven from non-formal aspects at times by non-governmental organisations (NGOs) (Norhasni, Irmohizam, & Shahrul (2022)

2.3 Hygiene Practices in Primary Schools

Many school-age children in low and middle-income countries attend schools with poorly managed or inadequate sanitation facilities, making them more likely to contract various diseases and less likely to go to school (WHO & UNICEF, 2008). Communicable diseases are one of the most common problems faced by school-age children and these encompass intestinal and respiratory infections. Due to their size, physiology, and behaviour, children are particularly vulnerable to environmental hazards, facing higher risks of contracting communicable diseases, injuries, and exposure to hazardous chemicals, due to their growing participation in cleaning activities in the school (WHO, 2019). Causal factors are mainly the use of contaminated or unsafe water, poor hygiene, and inadequate sanitation practices. These infections result in learner absenteeism due to illness (Pradhan et al, 2020; Ranga & Majra 2020; Meher & Nimonkar, 2018).

The use of unhealthy sanitation facilities in schools, with noticeable contamination of faeces, exposes learners to the risk of contracting communicable diseases such as water-washed COVID-19 by touching their mouths, noses, or eyes with contaminated hands (Poague, Blanford & Anthony, 2022). The risk is higher for children that attend schools where learners are in charge

of cleaning the toilets, such as those reported in Ibadan, Nigeria (Egbinola & Amanambu, 2015; Ogaji, 2012). Human excreta are the biggest source of disease-producing organisms including parasites, bacteria, and viruses (New York Department of Health, 2010), hence the incidence of diarrhoeal disease, due to contact with and failure to dispose of contact with human excreta effectively (WHO, 2008), exposes learners to such diseases during toilet cleaning activities.

Similarly, exposure to indoor and outdoor pollutants in the school environment can cause or aggravate Acute Respiratory Infections (ARIs). As learners sweep dusty classrooms and schoolyards, there is bound to be an increase in rates of asthma, allergies, and colds (WHO, 2019). These diseases affect learners' academic performance and also result in missed school days.

Unrepaired water damage, inadequately dried floors, and damp walls can lead to the growth of micro-organisms in building materials and ventilation systems and the release of bioaerosols that affect the respiratory systems of learners (Cleveland Clinic, 2020; Dube & January 2012). Exposure to many of these materials is strictly regulated in the industrial workplace but not in the classroom or the school environment (Machida & Safework's ILO's Programme on Safety and Health at Work and the Environment, 2021) where learners work in environments in which they may be exposed to high levels of dust and hazardous cleaning materials.

2.4 How safety and hygiene practices in primary schools could be improved

WHO (2002) advises that as most schools may not have adequate resources to address all the environmental health issues arising simultaneously in a school, there is a need for each school to draft its own priority list which it can execute within its budgetary constraints. The importance of protection is emphasised in the ED Covid-19 handbook (2021) which states that it is crucial that all learners receive the resources, including personal protective equipment (PPE), such as masks and technical assistance essential when implementing wide-ranging disease-prevention strategies. Personal protective equipment (PPE) is any clothing or equipment that is worn by an individual to minimize exposure to biological, chemical, or any physical hazards on the worksite. For it to be effective, PPE should be designed to protect the body (mouth, nose, eyes, and skin) from injury and contamination (WHO, 2018).

Schools are advised to start with small changes which are financially feasible instead of waiting until their coffers hold enough money to implement big projects all at once, such as the provision of face masks the wearing of which the Zimbabwean government made law during the 2019-2021 Covid-19 period. Handwashing, if correctly done at key times throughout the day (ED Covid-19 handbook, 2021) serves as an additional

prevention strategy that, in combination with correct and consistent masking, helps keep learners safe by reducing the spread of germs that can cause illness.

The paucity of research in the area of safety and hygiene of learners in relation to school cleaning activities warrants more research. Considering this, there was a great need to explore the current safety and hygiene practices in Zimbabwe's primary schools and the strategies being implemented in order to safeguard learners against disease and injury in the school environment. The aim of this research is to determine the current hygiene and safety practices in the school environment and to suggest strategies that would safeguard learners against communicable diseases and injuries.

3. Methodology

3.1 Approach and design

The study adopted a pragmatist paradigm. Creswell (2014) posits that for pragmatists, regardless of circumstances, both quantitative and qualitative methods may be used in a single study. Such a paradigm allows the researchers methodological flexibility to choose methods that optimally enable her to address the research questions. In this study, the pragmatist paradigm allows the researchers to combine numbers and voices to explore how health, safety, risk, and their mitigation in the school environment are viewed and conceptualized by various stakeholders in education and health (Savin & Major 2013).

A mixed methods design employing the multiple case study strategy adopted allowed the researchers to explore the experiences of eight primary schools in two districts in order to gain a deep understanding of the processes of school-based cleaning activities (Yin, 2014). The multiple case study enabled the researchers to explore and explain how and why certain factors, were significant or not significant predictors of learners' risk of diseases in school-based cleaning practices in different contexts (Rashid, Warraich, Sabir, & Waseem, 2019).

Hence the application of case study research design suited the study's nature as a theory that hygiene and safety hazards exist in the school environment. Structured interviews and non-participant observations were used to collect data. School official documents were also analysed to generate data on the health policy regulations, cleaning duty rosters, and records of environment-related illnesses dealt with.

3.2 Participants

The study's target group was eight districts in the Midlands Province which were grouped into rural and urban, from which two districts were selected in a way that ensured representation of rural and urban districts. A

total of eight schools were selected from the two districts (4 rural and 4 urban) through stratified random sampling. Eight school heads from eight primary schools were purposively selected from the aforementioned geographic contexts in the districts. Only school heads were selected as they were considered the custodians of records of all activities in the schools.

3.3 Data collection

Data collection for the study was done through semi-structured interviews, observations, and document analysis. Schools' documents were reviewed first to gain an understanding of the dynamics of the schools' cleaning activities. Documents analysed included classroom, grounds, and toilet cleaning duty rosters, and sickness and injury records (unfortunately all schools provided duty rosters only, health records did not contain any information on sickness or injury). Structured interviews were used to obtain the perspective of school heads' views regarding potential hygiene and health hazards as well as cleaning activities in the school environment (Kallio, Pietilä, Johnson & Docent. 2016). Data on hygiene practices were obtained through observation of learners as they carried out routine cleaning activities. Observations were used by the researchers to check whether the responses given by the school heads were accurate.

3.4 Data analysis

Quantitative data were analysed using descriptive statistics in the SPSS 13 and results were presented in a table. Qualitative data were analysed inductively deriving themes from interview transcripts and field notes. Two basic operations i.e., coding and memoing were used (Esubalew, 2020). Coding enabled the researchers to summarise data by putting it together into themes and thereby identifying patterns in the given data. Qualitative data were presented in narrative form.

3.5 Ethical Considerations

Armed with a letter of authorisation from The Midlands State University, the researchers contacted the office of the Provincial Education Director (PED) of the Midlands Province of Zimbabwe since all the primary schools in the province fall under the jurisdiction of that office. Permission to carry out the research in primary schools was obtained from the Ministry of Primary and Secondary Education. With the clearance from the PED, the researchers then sought permission to enter schools from the school heads who provided their informed consent in writing (Akaranga and Makau, 2016). During data collection, the researchers observed the rights of research participants.

4. Results and Discussion

There are two sections in this study. Section A will first highlight the cleaning activities carried out in the schools involved in this study. Section B subsequently discusses emerging themes and sub-themes. The following themes, which were based on the research objectives, emerged from the findings of the study: current safety practices in primary schools, current hygiene practices in primary

schools, and how safety and hygiene practices can be improved in primary schools in the Midlands Province of Zimbabwe.

In an effort to establish the suitability of the selected schools, some preliminary questions were posed. School heads were asked whether they involved learners in cleaning duties. The answers to the question were unanimous, all schools involved learners in cleaning activities in the school environment.

Table1: Cleaning activities in primary school environments in the Midlands Province in Zimbabwe

Cleaning duty	Urban School heads				Rural School heads			
	A	B	C	D	E	F	G	H
Sweeping & mopping classrooms	✓	✓	✓	✓	✓	✓	✓	✓
Picking litter	✓	✓	✓	✓	✓	✓	✓	✓
Sweeping school yard				✓	✓	✓	✓	✓
Cleaning toilets				✓	✓	✓	✓	✓
Cutting grass					✓	✓	✓	✓

Table 1 above shows a profile of the forms of cleaning activities carried out in the selected primary schools. A variety of cleaning activities were identified, and it emerged that learners in urban schools carried out fewer cleaning duties while those in rural areas had a wider variety of duties. Six school heads interviewed in the study mentioned that they did not have adequate funding hence they found it challenging to engage employees to clean classrooms and toilets, hence the reliance on learners as manpower.

Observations showed learners, in all schools, sweeping and moping classroom floors as well as picking up litter. Sweeping of the schoolyard and cleaning of toilets were observed in two urban schools and all rural schools whilst cutting grass was observed only in rural schools. When asked whether there were other personnel, besides learners, involved in school cleaning activities, school head A (7 March 2022) reported that: “We have non-teaching staff that cleans the toilets” whilst school head D (7 March 2022) said: “Yes, but because we are having water problems you find that there is need for learners to help them”. The majority of the respondents indicated that only the learners engaged in cleaning activities in the school environment.

Regulations that govern school cleaning activities

The findings from school heads show that although schools are aware of the possible hazards that could jeopardise the safety of learners, there is no evidence of systematic or organised protocol being observed in safeguarding the learners when performing school cleaning activities. This negates the suggestion made by WHO (2008) & Rutter (2010) that Policy frameworks are important as they prevent conflicts and delineate the responsibilities of the stakeholders. The school heads

lack of involvement in determining the hygiene and safety policies and the inability to keep health records at the school level indicates that the school safety procedures are not effective.

To express their views regarding the availability of hygiene and safety policies in schools, participants had the following to say: School head A (1 March 2022): “Apart from standing orders from immediate bosses nothing in terms of the policy”. School head F 2 March 2022: “It is required of each institution to be clean so the school environment is subject to inspection by authorities that may choose to visit the institution, so we are duty-bound to maintain our environment as clean as possible”.

Responses from all school heads indicated that the role of the teacher in school cleaning activities was solely that of a supervisor. The findings do not fully comply with the idea by Cherukupalli (2018) who states that besides being effective enforcers of health and safety practices in schools, teachers’ inclusion in policymaking is significant in that they will feel valued as important stakeholders and equips them with knowledge and skills related to the promotion of health and safety.

Prevalence of health and safety hazards in the school environment

School heads were interviewed on the prevalence of the following hazards in the school environment. Below are the responses from some of them. School head B: *Contaminated fluids – yes, it is very possible, at peak times our toilets get congested and naturally there are spill-outs learners may get into contact with.* School head F: *Dust - as they sweep their classrooms; naturally sweeping raises a lot of dust and there is no way to avoid it.* School head G: *In the cases of cuts, bruises, and pierces, naturally in a school environment we would*

have that, young ones as they clean and play around develop bruises and cuts.

Forms of protection given to learners

Although all school heads acknowledged the need to prevent infections, unwanted injuries, and accidents, by providing learners with some form of protection such as protective clothing, they all sighted financial constraints as a limiting factor towards the acquisition of protective equipment. Only two school heads displayed some protective clothing, but unfortunately, the clothing was made in adult sizes. According to the school heads, the PPE had never been used as the items were too big for the primary school learners. Of interest is the response from School head E which was echoed by respondent F (2 March 2022): “We get PPEs from the district offices, but we were just given and the PPEs are not the correct sizes”.

In school H, learners were observed wearing either slippers (patapata) or canvas (tennis) shoes when cleaning toilets. Being made from absorbent fabric, the footwear would be wet by the end of the cleaning activities, thereby exposing the learners to communicable diseases. The need for protection was advocated for by Dunlap (1928) in his Utility or Protection theory when he observed that practically man is not equipped with a natural protective coat so he must devise his own, hence the use of personal protective clothing (PPE). This theory links very well with the need for PPE which is being reinforced through the ED Covid-19 handbook (2021).

Safety and health record keeping

Upon asking about the keeping of records on safety and health issues in the school, it emerged that school heads are aware that they are expected to keep records which led to responses such as the one from school head H: School head H (9 March 2022): “Yes, we have health coordination team comprising of four teachers who always take note of matters relating to health, naturally those involved in some freak accidents we take note of as well”. However, a request to view the records produced no results. Cleaning duty rosters were accessed in all schools. The following responses reinforce the view from respondent H: School head A (1 March 2022): “Normally we have them, the health masters and health mistresses keep the records”: School head F (2 March 2022): “We have never recorded any: School head H: Not at the moment but we should have them”.

Factors considered when allocating cleaning duties to learners.

The study reveals that cleaning in schools is predominantly done by Grade 3-6 learners. Most of the interviewed school heads reflected that the ECD, Grade 1, and Grade 2 learners were considered to be too young

to engage in cleaning activities in schools while the Grade 7 learners were exempted from most cleaning activities because they were considered to be too busy preparing for the Zimbabwe Schools Examinations Council (ZIMSEC) examinations. Since children are particularly vulnerable to environmental hazards and face higher risks of infections and injuries due to their size, physiology, and behaviour (Gonese, et al., 2006: WHO, 2019), the exclusion of learners in lower grades from cleaning activities reduces their exposure to potential risks and hazards. The following are some of the responses elicited: School head A: “I usually consider the age of the learners and the type of work”; School head C (7 March 2022): “Cleaning of grounds and toilets starts from grades 3-6, grade 7s don’t clean because we expect them to pass examinations so they spend time studying”; School heads D, E, F, and G expressed the same view as School head C.

Hygiene practices

All School heads reported that learners take turns from day to day to pick litter, and clean classrooms as well as the toilets. Grass cutting is done when there is need. Observations in two schools revealed that sometimes urination and defecation were done on toilet floors which were later cleaned by learners. This finding was inconsistent with an observation by Kugarakuripi (2018) who advocates for using a latrine for urination and defecation. According to Save the Children (2013) human faeces are the main source of germs and contact with human excreta can lead to diseases such as diarrhoea. Cleaning toilets without protection increases the possibility of learners getting into contact with human faeces and therefore, possible contamination.

Observations in all schools showed that learners observed hygiene procedures, such as washing hands after using the toilet, using the chamber or cubbyholes in the toilet, and throwing litter in the bin, during the first few hours of the day. As the day progressed the hygiene activities were abandoned such that by the end of the day hands were no longer being washed, toilet floors were wet and messed up, and classrooms and schoolyards were littered. Observations in two schools revealed that sometimes urination and defecation were done on toilet floors which were later cleaned by learners. This finding was inconsistent with an observation by Kugarakuripi (2021) who advocates using a latrine for urination and defecation. According to Save the Children (2013) human faeces are the main source of germs and contact with human excreta can lead to diseases such as diarrhoea. Cleaning toilets without protection increases the possibility of learners getting into contact with human faeces and therefore, possible contamination.

In all schools, water for handwashing was provided at strategic points around the school, the buckets were, however, not refilled when the water was used up. Another health hazard observed in two rural schools was the use of dirty water to wash hands after using the

ablution facilities. These two schools did not have running water.

Learners in two rural schools had to collect water from stagnant pools or carried water from their homes as there were no water sources at the schools. This exposes learners to possible illnesses because as established by Meher & Nimonkar (2018) the use of contaminated or unsafe water, poor sanitation, and poor hygienic practices are the primary causes of infections. The unavailability of reliable sources of water is partly explained by Relief Web (2019) in a report that said residents of Harare cited several reasons underlying the City Council's years-long struggle to provide water and sanitation services. This type of scenario is also affecting both urban and rural primary schools in the Midlands Province.

Strategies that can be employed to improve safety and hygiene practices in primary schools

The feedback from school heads and observation of learners revealed that generally learners are not afforded any protection against risks and hazards during their cleaning activities in the school environment. This is reinforced by School head E (2 March 2022) who, in response to the need for protection confessed that: "As you can see, they are just by themselves" (no PPE). This was the view expressed by all respondents.

Instead of using clothing (PPE) (The Utility or Protection theory by Dunlap, 1928) to provide a hygienic barrier and keep infectious and toxic materials away from the body, learners opted to protect their uniforms by replacing them with old clothes during cleaning activities. This practice showed lack of knowledge about the need to safeguard the health and safety of learners during cleaning activities by school heads. One respondent, school head A, gave this response: *When cleaning toilets they have gloves and footwear, we ensure we supply adequate long brooms, and we also supply requisite chemicals.* Interestingly, learners were observed wearing their school uniforms and old clothes as they cleaned the toilets and there were no hard brooms in sight.

As Cherukupalli (2018) states, school teachers are effective enforcers of health and safety practices and education in schools as such they should be made aware of how a hygienic school environment can increase the performance of learners while a school that is not clean can lead to infection and disease. Instead, all they could do as stated by School head B was: *Just to make sure they are given cleaning detergents but sometimes we are in short of supply of them, we have extra face masks for learners who come to school without face masks.*

5. Conclusion and Recommendations

5.1 Conclusion

From the present study conducted among schools in the midlands Province of Zimbabwe, it can be concluded that the percentage of hygiene practices among school children was found to be unsatisfactory. All the school heads indicated vague or no awareness of the Zimbabwe School Health Policy, suggesting that they have unwritten health and safety protocols that make teachers across the province deploy haphazard health and safety procedures hence making it difficult to assess their efficiency. In all selected schools, learners were not provided with any form of protection as they carried out cleaning activities in the school environment, a practice that left them exposed to potential risks and hazards. Government involvement in the implementation of school health program ranged from minimal involvement to no involvement at all as evidenced by the provision of incorrectly sized or no PPE to the schools. The challenge of constrained resources has contributed to schools compromising the health and safety of learners by having them clean using unsafe water and without suitable protective clothing. Poor hygiene practices lead to school days lost to sickness and play a major role in the increased burden of communicable diseases in the school and the community.

5.2 Recommendations

Although the total eradication of hazards is an impossible task, efforts to reduce exposure to infections and accidents are essential to promote a healthy and safe school environment. The study recommends that:

1. it is crucial for school heads and parents to identify potential hazards around the school and to come up with preventive measures.
2. Results revealed that schools in the Midlands Province do not follow any guidelines or specific policy that delineates the responsibilities of school heads and teachers. The researchers recommend that school heads and teachers should be empowered to participate in decision-making and problem-solving in order to enhance their performance and compliance with safety and hygiene practices in the school environment.
3. For the implementation of proper safety and hygiene practices, a school needs a strong team of teachers which is formed by the headmasters. For this to be effective, teachers should be given training on safety and hygiene matters at teacher training college and the school head needs to empower, trust and authorise teachers to take charge of safety matters.

4. All school heads sighted financial constraints as a limiting factor towards the acquisition of protective equipment needed for the protection of learners during cleaning activities. The researchers recommend, therefore, that instead of waiting until their coffers hold enough money to implement big projects, schools should start with small changes, which are financially feasible, such as the acquisition of masks for all learners. This would require learners, parents, teachers, and community members to work together in a participatory approach to promote health and safety issues at their school.

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