Roles of school leaders in the management of emergencies caused by natural disasters in Gaborone, Botswana

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Abstract: As natural disasters are becoming more frequent globally, understanding the role of school leaders during such disasters becomes more critical than ever, as they can grind schools to a halt. The fact that some communicable diseases such as COVID-19 are now classified as natural disasters means that natural disasters are increasing. The purpose of this study was to examine the role of school leaders in the management of emergencies caused by natural disasters. The study employed qualitative methods with three data collection tools to collect data from 20 participants – teachers, non-teaching staff members, and principals. The participants were purposively selected from schools in Gaborone, Botswana. The findings of this study reveal participants' understanding of the role of school leaders in all three stages of emergency management: before, during, and after an emergency because of previous experiences of natural disasters. The findings further suggest that school managers in emergency management play such roles as crisis managers, disaster managers, and caring and supportive leaders.

Keywords: School leadership, Managerial roles, Emergency risk reduction, Natural disaster, Intersectoral collaborations, Educating for safety.

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INTRODUCTION

Emergencies caused by natural disasters can cause major disruptions in education, involving a lack of access to schools due to school facilities that may be destroyed, teachers not being available, or children having relocated. Such incidents have increased globally (Torani *et al.*, 2019) and affect schooling daily. Africa is faced with increasing incidents of natural disasters. In Botswana, from 2010 to 2017, floods were more pronounced in several districts, and the Southern Sub-District had the highest record of earthquakes, with one infrastructure damaged and 200 individuals affected in 2017 (Botswana Environment Statistics, 2017). The potential impact of natural disasters is multiplied in developing societies, where much of the population consists of children (Mudavanhu, 2014).

As schools play a vital role in communities, they must be secured and protected. The focus should be on preventing catastrophic damage that may destroy school buildings and preserving the lives of children during disasters. However, this concept is not limited to preventing the collapse of school buildings during disasters and ensuring the safety of teachers and students but extends to disaster risk reduction (UNCRD, 2009). According to the UN Office for Disaster Risk Reduction (UNDRR) (2007) disaster reduction campaign, "disaster reduction begins at school". Schools are the best venues for forging durable collective values and, therefore, suitable for building a culture of prevention and disaster resilience. Safety in schools is a priority, and it is the duty of school leaders to safeguard schools and their communities.

Schools are the most vulnerable, yet understudied, institutions concerning managing emergencies. In the face of such risks, schools must be prepared to manage emergency events to prevent or minimise physical and psychological trauma to their staff and students. According to Tipler *et al.* (2016**)**, many emergency management activities undertaken worldwide begin in schools. The responsibility rests with school leaders to ensure that students in their care are safe during and after emergencies (Tipler *et al.*, 2016), as they are the first responders to events occurring on their premises. Sadly, often, schools wait for incidents to happen before emergency management and/or preparation for such incidents are taken seriously. This might be partly attributed to the fact that schools are not traditional emergency response organisations (Kano *et al.*, 2007).

The Botswana National Disaster Risk Reduction Strategy 2013–2018 (UNDP and NDMO, 2013) promotes awareness of disaster risk reduction (DRR) in schools and communities known to be at risk. This strategy mandates government departments to integrate DRR into their main policy, projects, and programmes. However, creating awareness and an understanding of disaster risk has been slow due to a lack of policy direction on matters relating to school risk reduction (Mutasa & Coetzee, 2019). There is no school safety policy in Botswana; the Ministry of Education is in the process of finalising it. However, the justification for this study is based on the fact that the safety of school children is their basic right.

Studies reveal a general concern for emergency management, risk reduction and teaching about disasters in schools. Emergency management refers to the steps to ensure safety before, during and after an emergency or natural disaster

(New York Department of Health, 2018). Teaching can halt when disasters hit, especially in the absence of plans to deal with them. To mitigate the impact of natural disasters on schooling, this research argues for the understanding of school leaders' role in this regard. As leadership is about influence, this research includes principals, deputy principals, heads of departments (HoDs), and senior teachers in its definition of school leaders. Understanding their role may improve practice if what they know is enacted (Kwatubana et al., 2022). The school community is expected to respond responsibly to emergencies and natural disasters that may occur. Studies conducted in many parts of the world on emergency disasters and schools highlight the importance of preparedness (Chemeli & Mwongeli, 2015; Johnson, 2011; Walia & Satapathy, 2007) regarding planning and equipment. The question that guides this research is: what role do school leaders play in the management of emergencies caused by natural disasters?

Background and rationale

Studies in South Africa have revealed that teachers are not trained in disaster management, lack disaster emergency management knowledge, and have a low fire-risk perception (Mugamu, 2018), the same can be said about school leaders. In Botswana, the only study that could be found relating to emergency preparedness focused on the use of experiential learning in promoting the integration of disaster risk reduction into the primary school curriculum (Mutasa & Coetzee, 2019). Other studies that focus on school safety in Botswana emphasise drug use (Riva et al., 2018), bullying (Selemogwe et al., 2014), and crime and violence (Ndikimbela, 2012). Although these studies are important in dealing with everyday safety matters, there is a paucity of studies that focus more comprehensively on the role of school leaders in emergency management caused by natural disasters in Botswana. Consequently, little is known about the role school leaders should play in times of emergencies and disasters.

Emergency management plans for schools have been around for decades; however, due to disaster intensity and frequency
of occurrences of natural calamities, much attention is given to strategies that can be adopted to reduce infrastructure and life losses. The data in this research highlight four disasters that require attention: lightning; floods; tornados, and COVID-19. COVID-19, like all pandemics, is classified as a natural hazard according to the International Federation of Red Cross and Red Crescent Societies (Seddighi, 2020). It can be argued that emergency operations in the first three natural disasters and COVID-19 would differ. In the first three disasters, disaster management would entail an integrated combination of planning, training personnel, qualification, emergency drills, acquisition of equipment, and standard certification (Mururi, 2014). In contrast, emergency operation for communicable diseases such as COVID-19 is designed to be more flexible than natural disasters to give the person in charge more authority to adjust to the circumstances. Understanding how the two disaster management systems are structured and function is crucial for shaping responses and school policies in a more efficient and coordinated way. It is a fact that in all disasters, every school should have effective, locality-specific school safety planning – from mitigation/prevention and preparedness planning to response and recovery procedures (UNESCO, 2013).

According to Seoke (2013), information is a critical element of safety since it empowers and enables individuals and communities to take control of their health and safety. Education is increasingly recognised as an important factor in promoting emergency management in case of disasters. Several studies in Africa recommend the inclusion of information on disaster management in the school curriculum. It is believed that education can influence emergency preparedness and management behaviours. Students acquire knowledge, skills, and competencies that can influence their preparatory and management efforts. Hence, some researchers advocate for including disaster risk reduction in the school curriculum (Mutasa & Munsaka, 2019). The present study aims to contribute to the dialogue of safe schools and expand it to include the reduction of disaster vulnerability in schools by offering empirical evidence of perceptions on the roles of school leaders in disaster management and risk reduction.

METHODS

The opinions advanced in this research are based on the data that were collected through a qualitative approach. The idea was to gain an understanding of situations and events from the viewpoints of participants (Fraenkel, 2014). A case study design focusing on explorative, descriptive and evaluative approaches was employed. An explorative approach assisted in getting an in-depth understanding of the role of school leaders in the emergency management of natural disasters in schools in Gaborone. In line with a case study design, multiple data collection methods were used (Creswell, 2013).

The descriptive approach allowed the researchers to provide a detailed explanation of the measures taken by schools in Gaborone to manage emergencies. This research was conducted in the first semester of 2020.

Participants and instruments

Six public junior secondary schools in Gaborone, Botswana, were selected for this study. Three schools are in the South-East region, and the other three are located in Kweneng region. Twenty participants were sampled: six principals, seven teachers, and seven non-teaching staff (n=20). Green and Thorogood (2004) maintain that the experience of most qualitative researchers conducting an interview-based study with a fairly specific research question is that little new information is generated after interviewing 20 people. Amongst the participants, thirteen are females (six principals, three teachers and four non-teaching staff which were school secretaries) and seven males (four teachers - Heads of Departments and three non-teaching staff members which were chairs of the Parent Teacher Association). The school leaders were made up of principals, Heads of Departments and senior teachers. The selection of the participants from two different post levels and having teaching and non-teaching staff was for the purpose of triangulation of their perceptions. All participants had been in the same schools for more than five years. Purposive sampling enabled the researchers to select participants who held rich information about emergencies by virtue of their working experiences and roles.

Three data collection tools (i.e., observation checklist, and semi-structured and focus group interviews) were used to collect data from the participants. The focus of the empirical research was two-fold, centring on past experiences of emergencies, and roles of school leaders in past and future natural disaster emergencies. The present research focused on these two aspects because, once potential crises were identified, schools would better prepare for them. The observation checklist focused on the latter aspect, while the semi-structured and focus group interviews concentrated on both. The aim of the interview questions was to elicit data from the participants using the following: What are your past experiences regarding emergencies? What emergency plans does your school have in place? Based on your experience, what are the differences between the roles that principals can play in natural disasters such as floods, landslides etc, and disasters such as COVID-19 in terms of preparedness, response and recovery? What do you think the role of the principal is in the management of these disasters? The interviews were audio-recorded by means of a digital voice recorder, and notes were taken as a backup for electronic mistakes and errors.

Using an observation checklist was the first step in the data collection process to assess the availability of emergency equipment, including clearly designated assembly points, sick bay, etcetera. According to Jackson (2010), a checklist is a structured method used in data collection. It was necessary to start with a checklist to familiarise ourselves with the context of the schools and how they prepared for disasters. The checklist was used to complement textual data and as a tool for eliciting and validating data obtained from individual and focus group interviews.

Semi-structured face-to-face individual interviews were conducted with each participating principal (n=6) at times convenient to them. This was the second step of data collection. The principals played two roles in this research: that of gatekeeper, enabling the researcher to establish rapport with potential participants, therefore gaining their cooperation; and that of the participant. It was necessary to include principals in this study because of their unique role of being crisis managers.

Focus group discussions (FGDs) were then conducted to collect information from teaching and non-teaching staff members on their perceptions of the roles of school leaders in emergency management in their respective schools. The focus groups consisted of 14 participants: three senior teachers and four Heads of Departments and non-teaching staff, including four school secretaries and three chairs of the Parent Teacher Association in selected lower secondary schools in Gaborone. Teachers are the first responders who should provide psychosocial support to students or each other after an emergency. They are expected to continue with their normal activities after a crisis as if nothing has happened. Regarding the involvement of non-teaching staff, it is believed that an emergency is a whole-school concern where everyone is expected to engage in joint hazard mapping and disaster preparation. The second author organised two interactive group discussions where information was obtained about the participants' views and opinions on roles in emergency management. The FGDs were conducted at two schools: one school for teachers, and the other for non-teaching

staff members. The grouping of the participants was in line with Krueger and Kasey's (2000) suggestion that participants should share similar characteristics. The focus groups consisted of mixed genders (seven females and seven males), so as to improve the quality of discussions and their outcomes (Freitas et al., 1998). Participants of both FGDs were guided by questions that required them to narrate their own experiences and perceptions of the roles of school leaders in emergency management in their respective schools.

Data analysis

According to Neuman (2011), no single qualitative data analysis approach is widely accepted. Researchers also disagree on the description and number of steps of the same data analysis process (Schurink et al., 2011). Therefore, qualitative content analysis, as proposed by Creswell (2013), was employed in this research. The following qualitative content analysis procedures were employed:

- The data obtained from the checklist, audio recordings and field notes were transcribed immediately after each phase and after each interview. The second author listened to the recordings three times before transcribing so as to acquaint herself with the content. In the case of unclear audio, transcription notation symbols and field notes were used in order to decipher data (Henning et al., 2004).
- The transcribed data were uploaded to NVivo (version 9) qualitative data analysis software. NVivo enabled the organisation of data by first disaggregating data into smaller parts to facilitate coding. The

abstraction process of coding then followed whereby units of meaning were identified and labelled. Key categories were developed from the codes to identify meaningful connections, relationships and trends with the aid of the software. The categories were grouped to form themes. The final process involved the evaluation of themes for relevance to the research questions.

By comparing findings from different perspectives, data were triangulated to allow the limitations of each data collection method to be transcended (Willamson, 2005). Although the results derived from each data collection tool related to different objects or phenomena, they were complementary to each other and were used to supplement the individual results.

In Botswana, permission was obtained from the Ministry of Education and Skills Development and from the principals of the selected schools. A guarantee concerning confidentiality and anonymity was discussed with the principals and the participants, and consent for participation was obtained from each participant. The participants were also informed of their right to withdraw from the study at any stage. The information they provided was treated as confidential and was not linked to their schools. In addition, the participants were informed that the datasets would be stored on password-protected computers, accessible to only the researchers.

RESULT AND DISCUSSION

The research results are presented in this section. The themes focus on: Past Experiences of Emergencies; Emergency

Management Plans; Education, Training and Development.

Past Experiences of Emergencies

All participants indicated that they had experienced disaster emergencies in their schools, such as tornados, thunderstorms and lightning, floods, and COVID-19. Thunderstorms and lightning affected two participating schools during school hours: one in the Western region and the other in the Eastern region. In the latter region, electricity was interrupted in all classrooms in one school, and in the former region, one student was struck by lightning. A school in the Eastern region was affected when a tornado destroyed the roof in a block of four classes one afternoon in 2018. All the participants had experienced flooding in their schools, especially in 2017, when many schools were temporarily closed due to floods that destroyed property. All participants also experienced COVID-19.

Emergency Management Plans

The participants mentioned five emergency plans that could be used for all emergencies: assembly points; emergency drills; evacuation procedures; emergency response training; and school safety policies.
Establishing safety points is the first step in ensuring preparedness for emergencies. Participants mentioned having assembly points designated for safety. The assembly point was considered essential for all types of disasters including COVID-19. Having safety spots is part of planning for emergencies.

> "we do not have an assembly point, but there is a spot that is used in the case of emergency (T1); our emergency assembly point is not in good condition, as

the lines are no longer visible – a car bumped into the signpost (T6); our assembly point is where we conduct our morning prayers (P2); the assembly point is suitable for all types of disasters (P3).

Planning also pertained to setting up safety committees that include all stakeholders and monitoring their activities. Safety committees were regarded as important structures with people that ensure the implementation of safety policies and guidelines. Teachers believed that there should be one safety committee in a school that is responsible for all safety issues, while principals preferred to have three separate committees. They highlighted the amount of work that would be exerted on committee members who must be familiar with different guidelines that have to be applied in each type of disaster:

> the safety committee is made up of teachers and non-teaching staff and a few parents (T2); It is my duty to set up committees in the school – I make sure that the right people are part of the committee, I oversee their activities to ensure that the committee is effective (P3); there should be one committee that deals with all safety issues, the safety policy of a school should include safety pertaining to COVID-19 (T4); we should have three separate committees: one dealing with natural disasters such as floods, landslides, etc.; another focusing on communicable diseases; and the third on school safety in general including bullying, vandalism, etc. (P4); there are different guidelines for each category of disaster, it will be too much for

one committee to deal with all the policies (P6).

Although in all the schools, emergency drills were not conducted and students were not informed about evacuation procedures, the participants had ideas on how students could evacuate to an onsite assembly area. The responses of the participants show that they understand the importance of order when exiting to curb injuries and fatalities. The role of the school leader as a crisis manager is mentioned. In this regard, the participants said the following:

> "we never conduct emergency drills, maybe due to a lack of understanding of their importance (P6). As we have double-storied (sic) classrooms, the classes on the first floor can come down the stairs on the right and those in (sic) the ground floor can go to the left to avoid stampedes (P4); there are not many exits in our buildings, but we can, with clear communication, avoid chaos by splitting the group – one area exiting first, then the next until all students are out of danger (P1); it is the responsibility of each teacher to make sure that students in his or her register class are safe – my role will be to make sure that there is order, every class having a teacher that is monitoring (sic) students as they exit (P5)".

They also mentioned the role the principal could play in such an exercise, such as management of the evacuation process by giving directions and guidance and clearly communicating the processes. This means that principals are expected to provide leadership and monitoring processes.

> "the principals have to manage the whole process, and if anything goes wrong, they would be accountable. Clear communication is key here, as an emergency does not wait for people to be prepared – you have to think on your toes to avoid stampedes and chaos (P3); principals cannot be spectators in an emergency – they have to be with the teachers, assisting and giving direction (P2); in the case of COVID-19, social distancing has to be observed when exiting and assembling, principals have to monitor this (T2).

Although there were no written procedures in classes and staffrooms except for COVID-19, contact information lists of emergency response personnel were pasted at the entrances of the administration blocks. Information about COVID-19 included posters intended to remind the school community about frequent washing of hands and sanitising, social distancing, and how to practice cough etiquette. The participants' utterances below indicate that the principal is a crisis manager. Participants were clear about the procedures for reporting.

> In the (sic) case of emergency, we approach the principal, who calls the emergency services (T4); we also keep emergency numbers in our offices as clerks, and we assist teachers with the calls for ambulances (NT4); the reason why we do not have the emergency numbers in the classrooms is that teachers have to report the incident first before contacting people outside the school. They, therefore, have to come to the office, report, and then if there is a need for the school to contact the community member(s) outside, the clerk will

assist (P2); the correct procedure is for teachers to alert the principal of an incident and also the clerks so that they can be recorded in the incidence register (P5).

Concerning resources, the researcher observed that all the sampled schools had first-aid kits and sick bays. Schools were able to supply learners with face masks, used detergents to clean classrooms and desks daily and each classroom had a sanitiser during COVID-19. However, the participants' responses revealed challenges such as a lack of training in administering first aid, first aid kits that were not replenished, and a lack of stretchers. The utterances below highlight the important role of the school leader in organising resources.

> we do have first-aid kits in our schools, but we do not know how to apply first aid (NT2); our first-aid kit is at the reception – everyone within the school knows about it and how to access it in times of emergency. It is replenished once a year, and most of the items are used during sports season (T7); the medication in the first-aid box finishes the first week of the tournament and [is] never refilled due to insufficient funds (NT3); I did first-aid training at the Red Cross Centre, and I used to assist students during sports competitions. The certificate has expired – it was valid for only three years. I sponsored my training, and now I cannot do another (sic) training because of budget constraints (NT6); our sick bay is in the Guidance Office for students who get sick, we do not have stretchers (T4); sick bays are available; they cannot

accommodate more than three students at a time. If more students are injured, they will be taken to the staffroom (P4); it is the responsibility of the principal to provide resources, but funding is the problem (P6); we had to resort to a rotational timetable during COVID-19 due to fewer number of classrooms (P1).

Most participants indicated responsibility to account for students, provide/supervise medical treatment and communicate with parents. All participants understood that they could have multiple response tasks to ensure the safety of others. These tasks include being an accounting officer and a liasing officer. Participants understood the boundaries of their responsibilities and how their positions fit into their schools' overall risk and control structure. For instance, participants indicated the following:

> "… the students in my class are my responsibility. If anything happens, I have to make sure that they are safe. After evacuation, I must count them to ensure they are all safe. If any of them is missing, I have to report (T4); As a principal, I am the accounting officer; I have to maintain order in the chaos by sending clear messages and giving directions and orders on how to deal with the situation. I am the last person to panic in such a state, as everyone within the school relies on my guidance (P6); principals are the first line of defense – they must be on the (sic) alert at all times. I must oversee ensuring all teachers and their students follow the correct procedures during and after an emergency. I have to alert the district, parents

and the governing body of the incident (P1); the assessment of damage can be done after we have made sure that the school community members are safe – for me, it is the safety of people first then property after (sic) (T3).

In responding to a follow-up question regarding what they thought their role was in ensuring stability after a disaster, they drew from their experiences. The three important factors that emerged from their responses were: reports on the incident(s); planning for classrooms and resources in case others are damaged; and assisting teachers and students who were negatively affected during the disaster. Teachers also indicated what principals ought to do to bring back normality to their schools:

> The first thing is to write a report to the department on the incident; this helps in assessing the extent of the damage and reflecting on our response to the emergency. This helps to improve and strengthen our prevention, mitigation, and preparedness (P5); I would focus on strategies to bring the schooling back to normality (P1); in case of damaged classrooms, we have to find accommodation for the affected students so that they can continue with their learning while we are trying to fix them (P6); when the damage is too extensive for the school to handle, the principal has to involve other stakeholders (T4); during COVID-19 we realised that teachers were traumatised and others were infected, the principal had to organise for counselling and also provide

temporary replacement for the teachers that were on leave (T5).

Education, Training and Development

Participants emphasised the importance of emergency training, including information about disasters in the subjects students are taught, continuous communication of relevant information to the school community, and interpretation of policies and guidelines on emergency management. This is what they said:

> the information about natural disasters in the Science and Technology subjects is scanty, and more needs to be added, especially on communicable diseases such as COVID-19 (T2); the principal has to prioritise sharing information about emergency management (T6); the whole school community has to be involved in training about natural disasters (P6); interpretation of guidelines is the responsibility of the principal, if they are misinterpreted, implementation will not be effective (NT7).

Discussion

This research was based on the roles of school leaders in the management of emergencies caused by natural disasters in lower secondary schools in Gaborone. The study was prompted by several natural disasters that these schools had experienced including COVID-19; participants seemed to have gained skills and knowledge related to emergency management of such disasters. They, therefore, drew from those experiences to highlight the roles of school managers. COVID-19 adds to the natural disasters that schools have to deal with. This

means that schools had to adjust their policies and operations to include the prevention of the spread of COVID-19. This research highlighted differences and similarities in terms of the management of emergencies between natural disasters such as floods, lightning, landslides, etc, and COVID-19. Resources were regarded as necessary in all types of disasters; however, there were disagreements concerning the formulation of safety committees and evacuation procedures.

The first finding pertains to school leaders' role as crisis managers. Researchers refer to crisis management as involving reacting to negative events during and after they have occurred. Crisis management in this research relates to processes and strategies taken by the principal to mitigate the impact of a crisis or respond to a threat. Crisis management in this research is multi-faceted in that it includes such strategies and roles as a communicator, leader, monitor, and evaluator of the impact of the disaster, provider of assistance and support to staff and learners, safety liaising officer, and accounting officer. Managing the disaster as it unfolds is complicated. Tarrant (2011) indicated that school leaders are expected to take control and act rationally and calmly while displaying creative thinking, social judgment and complex problem-solving skills. Although the principals in this research seemed to have been aware that they had to remain visible, accessible, and engaged throughout a crisis, they were also mindful that a crisis might be overwhelming and therefore, they had to work as a team. No single person can indeed tackle a natural disaster; combined expertise and skills are vital to produce concerted efforts.

The second finding pertains to principals as disaster managers. Disaster management pertains to continual, dynamic management, and planning for responding to dangerous situations (Wang, 2016). Based on this definition, the stages of disaster management are categorised into mitigation, preparedness, response, and recovery. Roles before emergency entailed setting up clear plans and strategies to deal with disasters and structures to support initiatives. Participants were clear about the role of planning, providing resources and monitoring. They deemed these starting points in the management of natural disasters. Being prepared is helpful; however, crisis plans are written when the type of event is unknown. This suggests that planners must be aware of the unpredictable nature of crises and be prepared to change their plans to suit the situation. Moreover, only two types of planning were revealed in this research: planning for prevention; and preparedness planning.

Planning for prevention is evident in the focus of schools on a curriculum that includes information about natural disasters and how they can be dealt with. School-based hazard education programmes are believed to increase knowledge, preparedness and management among students (Ronan et al., 2012). However, if the information is scanty and not of high quality enough, it may lead to insufficient children's preparedness for disasters and may put their health at risk (Seddighi et al., 2022). The number of natural hazards is increasing, and the addition of some communicable diseases as natural disasters calls for flexibility in the curriculum on disaster management. It is not surprising that the participants felt that school leaders' monitoring of

curriculum implementation on disasters and their impact is vital.

The finding on the importance of training teachers on disaster management shows the need for understanding central concepts in the guidelines and procedures provided by the Ministry of Education, the participation of all stakeholders in training, and how the guidelines can be negotiated and enacted. Effective enactment of guidelines and procedures seemed to depend on the support given: that of professional development and provision of resources. Another factor that emerged strongly was the lack of training. Training is part of planning, as it is conducted before programmes are implemented.

Regarding preparedness planning, school action plans included having safety committees, evacuation locations and procedures for exiting classrooms. Safety committees are responsible for taking measures to ensure the health and safety of the school community. The disagreement between the school leaders and teachers about safety committees seemed to be based on the scope of the safety committee and its ability to understand and implement all the regulations and guidelines of different types of disasters in addition to safety issues of bullying, vandalism, violence etc. The discussion on this topic stressed that the role of committees could change over time and is constantly evolving, along with its scope. Although there is a lack of data available to guide this, it is clear that school leaders and safety committees will always contend with such issues as effectiveness, capacity, and empowerment of safety committees.

The third finding focuses on the principal's role as a caring and supportive leader. School leaders' role after an emergency seems to be operational management matters, which include diagnosis, decision-making and resource mobilisation. As regards diagnosis or assessment of damage, the writing of reports may help in understanding what has happened, how it has happened and what should be done. It provides an opportunity for reflection on the activities during such a crisis. The participants mentioned the importance of organising counselling for affected students and teachers. This is in line with Brocque et al. (2016), who argued that teachers and education professionals are generally inadequately equipped to deal with the post-trauma reactions of their students. Teachers may be unable or unwilling to participate in post-event intervention if they struggle with their severe post-traumatic symptoms. It is therefore essential to include them in debriefing and counselling plans. By doing so, school leaders would be playing two critical roles: a caring leader role; and a supportive role. It seems that the principals in this research were not only caring but also understood the importance of caring for others in need. It also seemed as if they were encouraging caring, as they embedded the notion of caring in their objectives and strategies for dealing with the aftermath of a natural disaster.

CONCLUSION

There are currently no studies that focus on the role of school leaders in the management of emergencies caused by natural disasters in Botswana. The finding of this research indicates that the participants fairly understood the role of school leaders as important in all three

stages of emergency management: before, during and after an emergency. This understanding can be attributed to their past exposures to disaster incidences. Further research can be conducted on the effect of past experiences of disaster incidences on the management of disasters and risk reduction in schools. Although it is not known whether teachers and school leaders who have not been exposed to such incidents would perceive their roles the same way, it is important to note that, if school leaders do not understand their role, emergency management would not be effective. As natural disasters are becoming more frequent in Botswana, school leaders need to know what is expected of them. This research does not suggest that school leaders must have experiences with disasters before they can understand and enact their role. Instead, this study recommends that such experiences and knowledge about disasters could be used as a springboard for designing disaster management training programmes that also allow for knowledge sharing and teamwork. Thus, the processes already embedded in the participating schools' initiatives for disaster management and risk reduction may be possible vehicles for appropriate nationwide emergency management planning.

This research also confirms the unavailability of a policy that guides disaster management and risk reduction in schools. At the time when this research was conducted in 2021, there was no policy guiding the activities that focused on the management of emergencies caused by natural disasters in Botswana. The lack of safety and security policies for schools, including government documents, is highlighted by numerous researchers (Ministry of Tertiary Education, Research, Science and Technology, 2018; Mannathoko, 2019; Mutasa & Munsaka, 2019). Having policies would mean that there are determined procedures for how natural disasters can be managed so that the school community knows what is expected and can act accordingly. The finding in this research may contribute to the development and implementation of a much-needed school safety policy in the Botswana education system and inform the response of schools to emergencies caused by natural disasters.

The main limitations of this research pertain to a smaller number of participants and a sample that is only composed of participants with experiences of natural disasters, the major findings point out at unsuitability or less suitability of disaster management and risk reduction efforts of school leaders in the face of a lack of safety policy in Botswana.

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