

PROMOTING EMERGENCY AND DISASTER MANAGEMENT PREPAREDNESS AWARENESS IN SCHOOLS AND COMMUNITIES IN NIGERIA THROUGH SAFETY EDUCATION

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Abstract

Emergencies and disasters are regarded as occurrences of great magnitude that is catastrophic in nature with serious impacts on schools and communities. Since disasters are destructive in nature, there is need for increased awareness on emergency and disaster management preparedness. A successful disaster response depends on the availability of emergency and disaster preparedness at all levels, hence, the need for safety education for the promotion of emergency and disaster management preparedness awareness in schools and communities. This paper examined the meaning of emergency, and disaster, types and causes of disaster, emergency and disaster management/preparedness and the role of schools in it. It also analysed the concept of safety education, its goals and objectives as well as its avenues and facilitators. It was recommended among other things that emergency and disaster management preparedness awareness be created in communities and safety education be included in the school's curricular.

Key words: *Emergency, Disaster, Disaster management, Preparedness and safety education.*

Introduction

The words emergency and disaster are part of everyday vocabulary. Reference to emergency and disaster evoke concern in the community because of their unpleasant consequences. They are associated with adverse effect on health and wellbeing. Nigeria is often affected by emergency and disaster, ranging from floods, violence, epidemics, political and religious conflicts, and sometimes, fierce competition for resources which has led to deterioration in livelihoods, social marginalisation, crime and general insecurity. (United Nations International Children's Emergency Fund (UNICEF), 2015). Wherever they are situated, schools are faced with a number of both man-made and natural hazards as students and teachers are exposed to all manner of afflictions from within and without the school. Accident, arson, violence, building collapse, floods, earthquakes, kidnapping are just some of those problems and threats facing schools. When a natural or man-made disaster strikes, children are among the

most vulnerable population group, especially those attending school at that time. In the northeastern part of Nigeria, several lives have been wasted, people maimed, and abducted including hundreds of school children (like the Chibok girls).

An emergency is a situation that poses an immediate risk to health, life, property or environment (United Nations International Strategy for Disaster Reduction (UNISDR), 2008). According to World Health Organization (WHO) (2012) emergency is the state in which normal procedures are interrupted, and immediate measures need to be taken to prevent that state turning into a disaster. Thus, emergency management is crucial to avoid the disruption transforming into a disaster, which is even harder to recover from. Azuike (2015) asserted that emergencies can happen anytime in schools despite our best efforts to prevent them. Adequate preparedness is the key to effectively minimising damage. According to Pippa (2010), an emergency can be defined in the context of the social, political and epidemiological circumstances in which it occurs.

The World Health Organization (WHO) (2012) defined a disaster as a sudden ecological phenomenon of sufficient magnitude to require external assistance. According to the United Nations Report (2014) disaster is a serious disruption of functioning of a community or a society. It involves widespread human material, economic or environmental impacts, which exceed the ability of the affected community or society to cope with using its own resources. Adebimpe (2011) defined disaster as a severe disruption to the survival and livelihood system of a society or community resulting from their vulnerability to the impact of an or a combination of hazards involving loss of life and property on a scale which overwhelms the capacity of those affected to cope unaided. Elvis (2013) defined disaster as an event in which a society or a community undergoes acute deprivation of food and other basic necessities due to natural and man-made calamities to such an extent that it affects the normal functioning of the society or communities. Disaster may be natural or man-made. Natural disasters occur as a result of action of the natural forces. It is a natural process or phenomenon that may cause loss of life and resources. Examples are: floods, hurricanes, tsunamis and cyclones. (CRED, 2014). Ozmen (2006) identified Man-made disasters to include; air and water pollution, gas flaring and small scale mining accidents, toxic wastes disposal, land degradation, conflict related hazards and climate change as the most prevalent disaster within sub-Saharan Africa. More than 95 percent, of all deaths caused by disaster are said to occur in developing countries.

Paula (2008) reported that children are more likely than adult to perish during natural disaster or succumb to malnutrition, injuries or diseases in the aftermath of natural disasters. Children's unique vulnerabilities and their limited adoptive capacity to climate change presents a number of challenges to enduring

adequate levels of wellness. Children are susceptible to adverse environmental conditions such as contaminated water, decreased air quality, extreme heat, floods and diseases outbreaks. Children on their own cannot respond to these conditions nor care for themselves. Disaster preparedness in school can bring about a check on these adverse conditions.

Disaster preparedness is building up of capacities before a disaster situation occurs, in order to reduce impact. It is considered as one of the key steps in emergency management. It is simply planning and organizing for an emergency before it occurs (Glow, Colucci, Allington, Noonan & Hall, 2013). The authors further opined that vulnerability of disaster can be reduced or averted through proper disaster management system. A successful disaster response depends on the availability of disaster preparedness at all levels. The concept of emergency preparedness encompasses measures aimed at enhancing life safety when a disaster occurs. It also includes action designed to enhance the ability to undertake emergency actions in order to protect property and curtail disaster damage and disruption, as well as the ability to engage in post-disaster restoration and early recovery activities.

School safety and educational continuity require a dynamic, continuous process initiated by management and involving workers, students, parents and the local community (International Finance Cooperation (IFC), 2010). Ozmen (2006) maintained that safety education is important to ensure that learners respond appropriately when they are faced with disastrous events. Teaching learners about preparedness is important not only for the learners but also for their communities. Shaw, Shiwakuk, and Ikobayashi (2010) maintained that it is widely acknowledged that schools play an important role in awareness amongst students, teachers and parents because the more a child is aware of hazard and realistic risks, the more potential there is for the adult to be educated through the child sharing that knowledge at home.

When emergencies do happen, schools need to know how to respond appropriately and effectively as possible natural hazards are part of the context for educational planning, whether it is annually recurring floods, earthquakes that happen once in five generations, the increasing severity of storms and cyclones, water shortages, or the slow onset of rising sea water levels, these known and expected hazards can be mitigated with the determinant application of knowledge, education, and ingenuity. Man cannot stop the earth from shaking, the wind from blowing or the rain from falling. However, man can prevent these from becoming disaster with the promotion of emergency and disaster management preparedness awareness.

Schools and communities have become more prone to major crisis situations on a more frequent basis. Still some educators and communities may

not believe that crisis will happen, hence, they fail to prepare. For those who choose to prepare, the relevant question is not “will an emergency occur in my school or community?” but “when the emergency occurs, how prepared will we be to handle it” (Glow, Colucci, Allington, Noonan & Hall, 2013). Failure to consider the possibility of disaster occurring does not exempt anyone from the crisis when it occurs.

Types and Causes of Disaster

There are basically two major types of disaster: natural and man-made disasters. Natural disasters occur as a result of action of the natural forces and are inevitable. Natural disasters are large scale geological or meteorological events that have potential to causes loss of life and property. They are perhaps the most “unexpected” and costly in terms of loss of human lives and resources (Vijayakumari & Sabitha, 2015). Various phenomena like earthquakes, landslides, volcanic eruptions, floods, hurricanes, tornadoes, blizzards, tsunamis and cyclones are all natural disasters that kill thousands of people every year (CRED, 2014).

Man-made disasters occur as a result of human activities. Human instigated disasters are the consequences of technological hazards. Ozmen (2006) identified man-made disasters to include: Fire-outbreaks, building collapse, industrial accidents, acts of terrorism, civil strife, disease out-break, oil spillage and explosions. These types of traumatic events may also cause injury, property loss and loss of life.

According to Sani (2012) disaster could also be classified in the following ways: sudden-onset, slow-unset, industrial/technological, epidemic diseases and complex emergencies.

1. ***Slow-onset disasters:*** These disasters occur as a result of adverse weather conditions combined with poor land use and they include; droughts, famine, environmental degradation, deforestation, pest infestation, and desertification.
2. ***Industrial/technological disasters:*** These types of disasters are caused by society’s industrial and technological activities that lead to pollutions, oil spillage, explosions and fire.
3. ***Complex emergencies:*** These are man-made disasters which has multiple contributing factors. These include wars, terrorism, famine, kidnapping and violence.
4. ***Epidemics:*** Out-break of diseases that normally do not occur in stable communities but have potential to spread under certain conditions. Examples of epidemic diseases are: Ebola, measles, cholera, monkey pox among others.

The causes of natural disaster are many human activities play a role in the frequency and severity of disaster. Rapid urbanization, environmental degradation, poverty, lack of political will, resistance to change are some of the factors that could cause emergency and disaster.

Emergency and Disaster Management

More than 400 national disasters take place every year, affecting more than 230 million people and causing an average of 75,000 deaths annually (CRED, 2014). Disaster management is the creation of plans through which communities reduce vulnerability to hazards and cope with disaster. Disaster management focuses on creating plans to decrease the effects of disaster as failure to create a plan could lead to damage of assets, human mortality, and loss of revenue. It is the effective utilization and management of resources and responsibilities for dealing with all humanitarian aspect of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters (IFRC, 2008). It deals with the management of resources and information where disastrous events are concerned and also how effectively and seamlessly one coordinates these resources. It also deals with issues of planning, coordinating, communicating and risk management.

The Four Phases of Disaster Management

According to International Federation Red Cross and Red Crescent Societies (IFRC) (2008), disaster management is a comprehensive approach dealing with all four phases of disasters as follows?

1. Mitigation/prevention
2. Preparedness
3. Response
4. Recovery.

Mitigation/Prevention

Mitigation/prevention is defined as “sustained actions that decrease the risk of a hazard (probability of occurrence) or to reduce the potential negative consequences suffered by people and/or property”. It can involve such actions as:

1. Laws and regulations restricting deforestation to prevent mudslides
2. Relocating or alienating structures to minimize the effect of floods
3. Securing shelves and hot water heaters to walls in earthquake zones
4. Developing, adopting and enforcing building codes and standards.
5. Engineering roads and bridges to withstand earthquakes
6. Using fire-retardant materials in new construction to reduce the risk of fire.

The goal of mitigation aims at minimising the effect of the hazardous event and decreasing the need for response, as opposed to simply increasing response capability. It involves measures to be taken by schools to reduce the risks of these hazards on children (International Federation of Red Cross and Red Crescent Societies (2008). Mitigation steps include; identification of situations that the school and community may be facing on the basis of geography, community trends, school accident data, and other factors reviewing accident data and assessing violence and injury prevention strategies, and initiatives to improve the school environment (IFRCS 2008). In the prevention of communicable diseases surveillance and health, education is considered necessary, unusual symptoms or illness patterns could be checked through the use of school absenteeism logs. The use of cough and sneeze etiquette, good hygiene and appropriate sanitation techniques can help in decreasing disease transmission and can be incorporated easily into classroom culture (IFRC, 2008). Environmental disasters such as toxic spills, floods, earthquakes and environmental pollution could be addressed through discussions with the appropriate authority within the community. The authority can work with schools to address local environmental hazards or vulnerabilities and provide resources for examining the school risk potentials. The school can then translate this information into school protocol so that appropriate responses of schools and students can occur.

Preparedness

Preparedness takes the form of plans or procedures designed to minimise physical and property damage when disaster occurs. These activities ensure that when a disaster strikes, disaster (emergency) managers will be able to provide the best response possible. The essential elements include; planning, training of personnel, and table top disaster drills (IFRC, 2008).

During this phase, measures that will reduce the effects of disaster are put in place. Disasters predictions are made and where possible prevented and their impact mitigated on vulnerable population. Measures are taken so that those affected will be able to respond to and effectively cope with the consequences (Disaster Management Training Programme, 2010).

Response

This phase consists of actions taken to prevent death and further damage during disaster. The primary aims of disaster response are; evacuation from a disaster area, rescue from immediate danger and stabilisation of the physical and emotional condition of the survivors. These are done alongside with the recovery of the loss and the restoration of essential services such as water and power (IFRC, 2008).

In schools, the school crisis team is activated, and depending on the type of disaster or emergency, the activities that were already in place are put into action with the school nurses, health educators, teachers and other staff carrying out the emergency management strategy. Children who are affected by the disaster are identified during this phase and the problems attended to (The Federal Emergency Management Agency (FEMA) (2005).

Recovery

Recovery is defined as the actions taken to return to normal following an event, repairing building, and replacing homes (Disaster Management Training Programme, 2010). During recovery phase in schools, the management tries to restore the schools buildings and infrastructures that were affected back to normal, so that the children can return to classroom although the children may not be ready to resume learning immediately but, the children are guided through emotional crisis that might have occurred during the disaster. The community therefore responds by supporting schools with the necessary mental health resources and determining which therapies are appropriate for school incorporation and which are based more appropriately in the community. (Disaster Management Training Programme, 2010).

Disaster Preparedness

Emergency and disaster preparedness are activities and measures undertaken in advance to make it easier for schools and communities to respond quickly and effectively to emergency and disaster events (Adejuwon and Aina, 2014).

Schools and communities are required to take measures to ensure the safety of their people and learners during any school activity and whenever emergency and disaster occur. Paton and Johnston (2001) asserted that the objectives of safety education in school are not only limited to improve the knowledge, increase risk perception and awareness but it should also address the preparedness behaviour of the learners and other individuals in the school. There is a strong evidence that the more prepared a community is, the more resilient it becomes to emergency and disaster.

Disaster preparedness refers to the measures taken to prepare for and reduce the effects of disaster. That is, to predict and, where possible, prevent disasters, mitigate their impact on vulnerable populations, and respond to and effectively cope with their consequences. (IFRC, 2008).

Disaster preparedness provides a platform to design effective, realistic and coordinated planning, reduces duplication of efforts and increase the overall effectiveness of National Societies, household and community member's disaster preparedness and response efforts. Disaster preparedness activities embedded

with risk reduction measures can prevent disaster situations and also result in saving maximum lives and livelihoods during any disaster situation, enabling the affected population to get back to normalcy within a short time period (IFC, 2008).

Disaster preparedness is a continuous and integrated process resulting from wide range of risk reduction activities and resources rather than from a distinct sectorial activity by itself.

The Roles of Schools in Emergency and Disaster Management Preparedness

Emergencies and Natural disasters can happen at any time, and when they happen at school, everyone should be prepared to handle them safely and effectively. Administrators, teachers, staff, parents and students can work together to promote and maintain school-wide safety and minimise the effects of emergencies and other dangerous situations. Some natural disasters can be predicted giving schools enough warning to evacuate or take other safety precautions, but others can happen unexpectedly or go through rapid changes that suddenly put a school in danger. (Vijayakumari and Sabitha, 2015).

School safety and educational continuity require a dynamic, continuous process initiated by management and involving workers, students, parents and the local community. Emergency and disaster management preparedness is the job of the entire school community. This effort requires the leadership and coordination by school administration, and involvement and participation from all sectors of the school community. The (Vijayakumari and Sabitha, 2015).

The school has to integrate safety education in school curricula in countries vulnerable to natural hazards and the safe construction and renovation of school buildings to withstand natural disasters. Schools are required to take measures to ensure the safety of learners during any school activity and whenever emergency and disaster occur. Paton and Johnston (2001) suggested that the objectives of safety education in schools are not only limited to improve the knowledge, increase risk perception and awareness but it should also address the preparedness behaviour of learners. The school has the responsibility of translating knowledge into action by giving safety education both in the school and community so they will be prepared for emergencies and disasters.

When disaster strikes, people run to school for temporary shelter; hence, teachers and students often have to take the role of emergency care givers and trauma counsellors for those affected. This calls for skill-based training in the school in certain aspects of disaster response together with the theoretical knowledge. School can arrange co-curricular activities which include mock drills, first aid training, and training on fire and safety and on other emergency skills as appropriate. Students can create awareness on disaster management preparedness in the communities that they live ((Vijayakumari and Sabitha, 2015).

Concept of Safety Education

Safety education as a well designed educational programme to promote knowledge, attitude, behaviour and skills of people about safety in school, workplace, home and different settings in the community (Fakeye, 2011). Udoh and Haastrup (2006) also noted that safety education is overt and covert application of health knowledge, attitudes and skills for safe and effective living. It has to do with expecting accidents, reducing their probability and providing meaning to reduce their consequences.

Shaw, Shiwaku, Kabayashi and Kobayashi (2004) acknowledged that schools play an important role in the awareness amongst students, teachers and parents because the more a child is aware of hazards and realistic risks, more potential there is for the adults to be educated through the child sharing that knowledge at home. Ozmen (2006) maintained that safety education in school is important to ensure that learners respond appropriately when they are faced with a disastrous event. It is also important to note that teaching learners about emergency and disaster preparedness is important not only for them but also for their communities. Teachers, health workers share the responsibility of offering safety education to learners. Safety education could be taught in community in churches, during town hall meetings, in the market by health educators, community participation, religious organisations, government and non-governmental organisations in the form of health talk.

Goals of Safety Education

According to Ajala (2003), the following could be considered as the main goals of safety education:

1. To develop positive safety habits.
2. To prevent accident.
3. To develop appropriate attitudes and awareness of situations that have potentials for accidents.
4. To eradicate hazards in the environment.
5. To acquire knowledge and skills for dealing with accident outcome.
6. The recognition of the relationship between safety, success and happiness.

Objectives of Safety Education

The main aim of safety education is to provide necessary warnings and precautions so that the possible accidents would be prevented. The objectives are:

1. To create awareness about possible harms and injuries, thereby minimising injuries and their fatal consequences.
2. To give guidance for activities and protection of live

3. To provide rules, means and methods to be adopted and followed for a safe living
4. To promote knowledge, skills attitude and behaviour, about accidents in schools, workplace, home and different settings in the community that will enable an individual live in safety.
5. To safeguard life and property against accident
6. To improve the knowledge, increase risk perception and awareness (Kullabs, 2015).

Principles of Effective Safety Education

McWhirter and Francis (2012) suggested the following as principles of effective safety education:

1. Safety education should be taught in schools and community settings and everybody in the school and community should have good knowledge of safety education.
2. The teaching and learning of safety education in school and community should be done through the use of active approaches (interactive, experimental, focus group, discussions among others). There should be independent or group problem solving by the learners.
3. Real decision making on safety should involve the young people in order to help them stay alive. They may also be involved in designing or participating in surveys, choosing which activities that they want to take part. They can be involve in peer education projects, identification of hazards, participating in risk assessment and being part of actions to control or manage risk to themselves and others.
4. Teaching and learning strategies that address learner's needs should reflect the age and developmental stage of the learners, social and culture needs and the gender effect on safety related behaviour and learning should be taken into account. Open ended form of questions, informal discussions; mind mapping, brain-showers and circle time can be used as strategies in assessing learning needs. In addition, more structured formats such as surveys, focus group discussion, interview or draw and write activities' may also be included.
5. Safety should be taught as part of comprehensive personal, social and health curriculum. A comprehensive personal social and health curriculum will offer pupils a specific time and place to learn about being healthy and staying alive.
6. Use of realistic and relevant settings and resources. The use of real life data and examples will help in engaging the young and to challenge misconceptions

7. Work in partnership: Links should be developed with supporting agencies such as police, fire service and rescue local authorities and educational charities. Work with parents/careers and members of the wider community by seeking their views providing information and guidance, and involving them in developing and implementing solutions.
8. Known risk and protective factors should be addressed
9. Address psychosocial aspects of safety, example confidence, resilience, self-efficiency.
10. Adopting positive approaches which model and reward safe behaviour within a safe supportive environment.

Conclusion

Disaster management has become a fundamental issue for schools and communities. It requires proper preparation that could at anytime that disaster strikes be put to use. Being safe and healthy should be the business of everyone. We all want to stay safe and alive where we live, learn work or play, disaster and emergency preparedness values must be seen as very important in the promotion of life, safety, and education continuity. Based on the conclusion of the study, the following recommendation were made:

1. Safety education should be included in the school curricular to impart learners with knowledge of disaster and emergency preparedness.
2. There should be regular workshops for stakeholders in schools on disaster and emergency management to improve their level of readiness.
3. Government and non-governmental organisations should put in place disaster preparedness plans for prompt responds to disasters.
4. Health educators should embark on sensitisation campaigns to create public awareness on emergency and disaster preparedness in the communities.

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