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EMERGENCY AND DISASTER PREPAREDNESS AT RURAL HEALTH CENTRES IN MASVINGO PROVINCE, ZIMBABWE

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Abstract:
The word disaster evokes vivid and painful memories for most Zimbabwean citizens. While for many the word brings to mind images of cyclone IDAI that recently affected various communities in Zimbabwe, Mozambique and Malawi, for others it might trigger memories of other major disasters that have occurred in the country. Regardless of the type of disaster and the differing memories each may evoke, citizens of Zimbabwe inevitably revert back to one central question: "Why were we not better prepared?" In response, scholars have increasingly begun to explore the area of disaster management including, in the context of one of largest and most cherished institution, the health centre (hospital or clinic). When disasters occur, health centres are among the most important institutions as they are viewed as sanctuaries where victims seek solace. This study explores the emergency and disaster preparedness at rural health centres in Zimbabwe specifically in Masvingo province. Data for the study were collected through questionnaires and other secondary sources. It emerged from this study that generally the state of disaster preparedness in the rural areas of Masvingo province is poor.

Keywords: emergency and disaster preparedness, rural health centres, Masvingo province

1. Introduction

The cyclone IDAI disaster and many other disasters that have occurred throughout the world serve as reminders that we live in a world of disasters and hazards, and we do not know when a disaster will occur, but we do know that disasters will occur. It is obvious that when a disaster occurs there would be casualties and injured people. It is the health centre that is at the heart of the health systems that will receive the injured, infected, and terrified from these disasters (Chaffe and Oster, 2018). The expectation is that the health centre will do everything possible to help them and save as many lives as possible. When disasters occur, health centres are among the most important institutions as they are viewed as sanctuaries where victims seek solace. Thus, the importance of health centres that are well-prepared during disasters is uncontestable. Decision makers are certainly privileged to have knowledge, information and science at their disposal that enables them to gain an understanding of the role and importance of health centres during disasters, and the measures that can be put in place in order to make sure that health centres are available to respond effectively and efficiently to save as many lives as possible (Chaffe and Oster, 2018). It is to this knowledge, information and scientific base that this study aims to contribute.

Recognizing the importance of the health centres during disasters, the World Health Organisation (WHO) and the United Nations International Strategy for Disaster Reduction (UN/ISDR), with support from the World Bank dedicated the World Disaster Reduction Campaign 2008-2009 to the theme "*Health centres Safe from Disasters: Reduce Risk, Protect Health Facilities, Save lives*". In this initiative the (UNISDR, 2016) describes a safe health centre as a health centre that will not collapse in disasters, killing patients and staff, can continue to function and provide its services as a critical community facility when it is most needed and is organized, with contingency plans in place and health workforce trained to keep the network operational.

The Hyogo Framework for Action 2005-2015 also recognises the importance of healthcare facilities during disasters, and it calls for the integration of disaster risk reduction planning into the health sector, with the promotion of the goal of health centres safe from disasters (United Nations International Strategy for Disaster Reduction (UNISDR, 2016). This can be achieved by having emergency and disaster preparedness plans in place to ensure an effective and efficient disaster response.

With this in mind, the study explored emergency and a disaster preparedness process at rural health centres in Masvingo province of Zimbabwe. The study explored the policies and plans that governed disaster preparedness at the health centres as well as the knowledge, attitudes and practices of the healthcare workers at the health centres.

2. Research Methods

The researcher made use of questionnaires to collect data from the participants. A total of 100 questionnaires were completed by respondents from the health centres across the

rural districts of Masvingo Province. Secondary data or desktop research was also used to collect data for this study. Cooper and Schindler (2016) postulates that desktop research as the research technique which is mainly acquired while sitting at the desk. Using desktop was important because it was cheaper and less costly. The data was collected from various publications such as journals and books that have that have dealt with the studies of disasters and disaster preparedness in Zimbabwe. The study was based on a random sample of rural health centres in Masvingo province. The data collected was presented and discussed. There were also ethical considerations in this study. Ethics is the discipline which deals the distinction of good from bad, right separated from wrong (Cooper and Schindler, 2016). Prior to this study the researcher started by asking for permission and consent from the various participants. The participants, therefore, willingly participated in the study after they were approached by the researcher.

3. Finding and Discussion

3.1 Disaster plans

As reflected in Figure 1, the results from the study indicated that the majority of the rural health centres had no disaster plans. Out of the one hundred (100) respondents, only eight (8) indicated that there were disaster plans at their health centres. In other words, 92% of the respondents indicated that there were no disaster plans. It also emerged from the study that for the health centres that had disaster plans the disaster plans were still at the draft stage. The rural health centres had multidisciplinary disaster committees, which included members of most of the departments at the health centre. Findings from this study is in direct contradiction with Kaji and Lewis (2016) who stated that health centres in many parts of the world have plans that can be followed during disasters.

3.2 Command and Control

When responding to disasters, one of the first stages is to establish a command and control centre from where all the coordination of the response would take place. The significance of command and control centres was emphasized and reiterated by Kaji & Lewis (2016) who indicated that command and control is important during disaster management. As reflected in Figure 1, only 11% of the respondents (11 out of the 100 respondents) indicated that there were command and control centres at the health centres. It also emerged from the study that, where the command and control centres existed, they were located in the administration block away from casualty departments of the health centres.

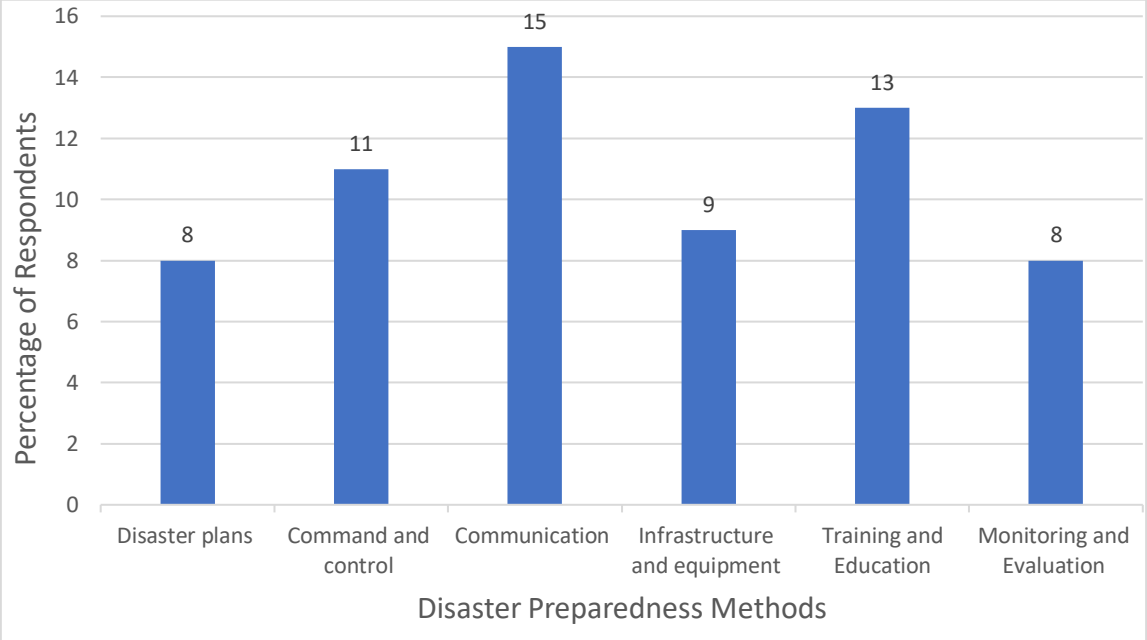

Figure 1: The state of disaster preparedness in rural areas of Masvingo Province

3.3 Communication

Communication is of paramount importance during disasters as failure to communicate can hamper the response. Compared to other methods of disaster preparedness, communication had the highest number of respondents who indicated that communication was good at the centres (Figure 1). Despite the comparatively high number of respondents who indicated that communication facilities were available at the centres, in absolute terms, the number of respondents was low. It was only 15% of the respondents who indicated that communication facilities were available. The indication was therefore that, communication facilities for disaster management were poor at the health centres. It also emerged from the study that the main form of communication was mainly through the telephones which were generally in poor condition while flexible mobile cellular phones were generally not allocated for such disaster management. There were no radio systems for use during power outages or when the system was overloaded. This is in line with Musanga (2018) who argued that most health centres in developing countries do not have backup systems in the case of emergencies and disasters.

3.4 Infrastructure and Equipment

From the study, it is noted that there is currently lack of space in the casualty department for the optimal care of patients. There is also lack of privacy in the consultation areas. As reflected in Figure 1, out of 100 respondents, only 9 indicated that such infrastructure and equipment were available for the management of disasters. From the study, it was noted that there is currently lack of space in the casualty department for the optimal care of patients. There is also lack of privacy in the consultation areas. There is also lack of areas where extra equipment for use is stored. Such shortage of facilities and resources in health centres during emergencies and disasters is not only a phenomenon of developing

countries but occurs even in the developed ones. Various surveys in the United States showed that their emergency departments were understaffed and overwhelmed with patients and are normally not able to cope during disasters and emergencies (Spranger *et al.*, 2017). In Canada, a report by the Ontario Health Coalition to the Severe Acute Respiratory Syndrome (SARS) commission, after the SARS outbreak showed inadequacy in hospital capacity and understaffed facilities (Krajewski *et al.*, 2017). Lack of resources negatively affects the preparedness and response to disasters and emergencies.

3.5 Training and Education

This is another important component of the disaster preparedness process. Training and education are one of the most important components of the emergency preparedness process. Training and education enable emergency management personnel to carry out the tasks allocated to them effectively (WHO, 2017). Effective health and medical response require qualified and competent healthcare workers who are willing to respond to emergencies or disasters (Mehta, 2016). From the study it was noted that there has not been any formal training and education, or workshops conducted for health centre staff in terms of the management of emergencies and disasters. Only 13% of the respondents indicated that such training and education were provided to the health workers. The results show that there is generally lack of education and training related to disasters in the health centres of Masvingo province. The results from the study clearly showed the need for training and education in issues involving emergencies and disasters. Healthcare institutions may have disaster plans, and all the important and sophisticated equipment and infrastructure, but this may be of little or no benefit if the staff is not properly trained in emergency and disaster management (Lennquist, 2015).

3.6 Monitoring and Evaluation

The emergency preparedness process needs a system of continuous monitoring and evaluation of the components of the disaster management process with a view of fine tuning and closing the identified gaps. Monitoring and evaluation enables healthcare institutions to determine how well the preparedness programmes are being developed and implemented as well as what needs to be done to improve the processes (WHO, 2017). Based on the results from the study, the majority of the rural health centres participated in disaster drills organised by the health centres. The results from the study showed that those drills involved few patients and were not enough to test the health centre. Only 8% of the respondents indicated that such monitoring and evaluation were taking place at the health centres (shown in Figure 1). The results from the study show that the drills involved few patients and were not enough to prepare the rural health centres. Furthermore, there were limited follow-up meetings or feedbacks after the drills had been conducted.

4. Conclusions

We live in a world where it is not known when disasters will occur. When these disasters occur, there is disruption of livelihoods, destruction of property, often leading to injury and death of people. When disasters occur, people look up to the healthcare institutions as sanctuaries where they would be safe and taken care of. It is with this in mind that the researchers conducted a study of health centre emergency and disaster preparedness in the rural areas of Masvingo province in Zimbabwe. Most of the rural health centres also had no proper disaster plans, which accounted for the high proportion of workers at the rural health centres not knowing about the plans and not knowing what the health centre disaster plans should contain. The rural health centres also experienced shortage of communication facilities. A threat to the preparedness of the rural health centres was the general lack of command and control centres. The rural health centres were also found to have weaknesses in terms of training and education as well as in monitoring and evaluation. There were also challenges in the provision of infrastructure and equipment for the management of disasters. Based on the results of the study the recommendations are discussed in the next section.

5. Recommendations

5.1 Financial Resources

There should be allocation of financial resources by the government to the Ministry of Health and Child Welfare aimed at improving the national emergency and disaster preparedness programmes. That would enable the rural health centres to access the relevant infrastructure and equipment. The resources should also enable the rural health centres to install proper communication facilities for disaster management.

5.2 Human Resources

There should also be assistance of the rural health centres in improving the human resource capacity by recruitment of specialists in disaster and emergency response. Additionally, there should be more education and training of health workers on matters related to disaster management. In addition, there should also be training and education of health personnel who can become knowledgeable in emergency and disaster preparedness. Issues in emergency and disasters management should be included in curricula of nursing and medicine studies. There should also be health sector emergency and disaster planning using the 'all hazards' and "whole health" approach as recommended by the WHO.

5.3 Disaster Plans

There should also be emergency and disaster plans in all healthcare institutions. There should be encouragement of health centres by the government to have disaster plans and in some cases, incentives should be offered to those health centres that have such plans.

These incentives could be in the form of prizes offered to health workers at the health centres that have the plans and therefore, more prepared for emergencies and disasters.

5.4 Guidelines

There is also need for the formulation of guidelines for healthcare institutions for the management of mass casualty incidents. Disasters have a potential of producing mass casualties that need to be taken care of. There can be national guidelines for health centres to follow during mass casualty incidents. All health centres would have to produce their own plans based on the prescribed guidelines. Tools or checklists should also be developed for use by the healthcare institutions for checking their preparedness for mass casualty incidents.

5.5 Government Policy

The government should put in place a policy for the recruitment of more emergency and disaster management workers to work in the rural health centres on the emergency preparedness process. The government can also offer scholarships and support for those healthcare workers who are willing to have formal training in disaster management. This will enhance the human resources capacity in emergency and disaster management.

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