Original Research Article

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Awareness about disaster management among accredited social health activists in field practice area of a medical college in Mysuru

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ABSTRACT

Background: The changing global climate due to human influences is leading to a greater incidence of extreme weather events and natural disasters. The natural and man-made disasters have a great impact on physical and mental health and health system. Disaster preparedness is therefore important at all levels of the health system. Being the first contact of the health system to the communities, accredited social health workers have a great role in managing the disasters at the village level. This study attempts to assess the awareness regarding disaster management among accredited social health activists (ASHAs) in the field practice area of J.S.S. Medical College in Mysuru, Karnataka. **Methods:** A community-based cross-sectional study was conducted for one month in July 2019. A total of 40 ASHAs were assessed by direct interview method using a pre-structured, validated questionnaire. The data were entered into the Microsoft Excel spreadsheet and analyzed using SPPS version 22.

Results: The median years of experience of ASHAs were 10 years (interquartile range: 5.75-10) with a minimum and maximum experience of 2 and 10 years respectively. None of the study participants had received any trainings or mock drills for disaster management/ preparedness. The awareness about disaster management was low among the ASHAs assessed. Most of the ASHAs (92.5%) had average knowledge about disaster management while 7.5% had only poor knowledge.

Conclusions: The awareness about disaster management among ASHAs is very poor. We recommend training programs and mock drills for the frontline health workers to improve awareness and disaster preparedness.

Keywords: Disaster management, Accredited social health activists, Awareness

INTRODUCTION

The global climate is changing significantly and the human influence on the climate system is supported by clear shreds of evidence. The increasing rate of global warming, rising sea levels and shrinking ice sheets indicates the severity of climate change. The change in the climate system is influenced by both natural events and anthropogenic interferences. However, the anthropogenic forcing is the main reason for the drastic changes in the climate. The human health is directly linked to the climate and weather. The changes in climate

have led to many profound effects on overall human health.³ An increase in the incidence of natural disasters and extreme weather events is observed in the world since the last few decades. This can be accounted for the changes in the global climate. According to records, in 2011 alone more than 300 natural disasters claimed above 30,000 deaths in 101 different countries and caused damages worth billions of dollars.⁴ The morbidity following disasters can be greater in terms of physical health and mental health.⁵ The proportion of the world's population residing in extreme weather areas have increased by many times and incidence of natural

disasters have increased three times since the 1960s. The increasing rates of manmade disasters also add to the concern.⁶ India is also vulnerable to natural disasters due to its geographical and climatic conditions and manmade disasters occur in the country time to time.⁷

As the incidence of disasters is on the rise, multi-sectorial action with a focus on health systems and sustainable development is necessary to manage emergencies. Emergency health management should be a national and local priority. Health risk assessments should be done periodically and early warnings should be ensured before all possible disasters. A culture of resilience should be developed at all levels of the community through education and underlying risk factors to both health and health systems should be reduced. Emergency preparedness at all levels is very important to manage disasters effectively.⁸

The National Disaster Management Authority (NDMA), chaired by the Prime Minister acts as the agency to manage disasters and related events in India. Periodical guidelines and training, warnings etc. also are provided by NDMA.⁹ A village Disaster Management Plan has to be developed in all the villages to prepare for and manage disasters. The frontline health workers have the main role in disaster management as they are the first contact of the community to the health system, especially in rural areas. It is important to develop disaster management teams in each village for the warning, evacuation and response, first aid, sanitation, shelter management, relief management, carcass disposal, counselling, damage assessment and reconstruction and rehabilitation. Being the community residents with basic knowledge in health and wellbeing, Accredited Social Health Activists (ASHAs) workers can be involved in these teams especially for first aid, sanitation, shelter management and counselling. 10

In this context, this study attempts to assess the awareness regarding disaster management among ASHAs working in the field practice areas of J.S.S. Medical College in Mysuru district in Karnataka.

METHODS

A cross-sectional study was conducted in the field practice area of J.S.S Medical College in Mysuru district for one month in July 2019. All the ASHAs working in the field practice area consisting of three Primary Health Centres were included in the study and those who were not willing to participate were excluded from the study. A total of 40 ASHAs workers from 3 different Primary Health centres participated in the study. The samples were selected by purposive sampling. The knowledge regarding disaster management was assessed with a prestructured, validated questionnaire. Informed consent was taken from the participants. The demographic details and working profile was collected from each ASHAs worker and the questions were administered by personal

interviews. Questions regarding experiences and training in the field were asked and the responses were noted. Awareness regarding camp management, first aids, sanitation and mental health management was assessed using the questionnaire. The data collected was entered in Microsoft Excel spreadsheet and analysis was performed using licensed SPSS version 22 software. The descriptive data were represented using percentages and a bar chart was used appropriately.

RESULTS

A total of 40 ASHAs from 3 different Primary Health Centre areas were assessed for knowledge regarding disaster management. Among the study participants, 4 were from urban area and 36 were from rural areas. The median years of experience of ASHAs were 10 years (interquartile range: 5.75-10) with a minimum and maximum experience of 2 and 10 years respectively. Among the participants assessed three ASHAs had experienced a flood one year before the study. However, none of the ASHAs had any prior experience in disaster management. None of the study participants had received any training or mock drills for disaster management/ preparedness and nobody was aware of a village disaster management plan or National Disaster Management Authority.

The awareness about disaster management was poor among the ASHAs assessed. Most of the ASHAs (37. 92.5%) had average knowledge about disaster management while 3 workers (7.5%) had only poor knowledge. The awareness about first aid provision, sanitation needs during and after a disaster and mental health services required for disaster victims were assessed separately using the questionnaire. It was observed that the awareness was poor in all the aspects. Awareness regarding first aid was poor among 3 participants (7.5%), average among 31 participants (77.5%) and satisfactory among 6 participants (15%). The awareness regarding sanitation needs and the services that could be provided by ASHAs was poor. Among the participants, 4 (10%) had poor knowledge and 35 (87.5%) had average knowledge. Only 1 person had satisfactory knowledge about sanitation needs. The awareness regarding the needs of mental health services like counselling also was low among the study participants. While 3 participants (7.5%) had only poor knowledge about mental health 37 persons (92.5%) showed an average knowledge.

The ASHAs were asked about the places where persons can take shelter during and after disasters. 42.5% of respondents were aware that disaster victims should take shelter in government relief camps. Among the participants, 30% opined that victims should leave the village, while 7.5% and 5% opined neighbouring houses and government hospitals as places for shelter. 2.5% ASHAs told that the victims should stay at their own houses and 12.5% were not aware of any solution.

Awareness		Number	%	
First aid	Poor	3	7.5	
	Average	31	77.5	
	Satisfactory	6	15	
Sanitation	Poor	4	10	
	Average	35	87.5	
	Satisfactory	1	2.5	
Mental health/ counseling services	Poor	3	7.5	
	Average	37	92.5	
Total disaster management awareness	Poor	3	7.5	
	Average	37	92.5	

Table 1: Distribution of study participants based on their awareness regarding disaster management.

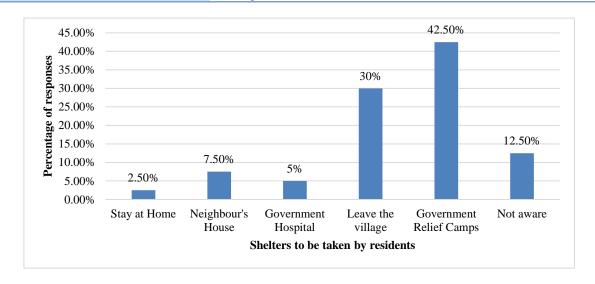


Figure 1: Shelters to be taken by disasters victims according to the ASHAs assessed.

DISCUSSION

In spite of disasters of various types and intensities occurring more commonly in the country, we observed that the awareness regarding preparedness management of disasters was very poor among the public health workers participated in the study. Majority of ASHAs had only average knowledge regarding disaster management. Remaining few had poor knowledge regarding disaster preparedness and management. This is comparable to many studies available from the countries. Even though similar studies assessing preparedness and level of awareness about disaster management among ASHAs is not available for comparison, many studies show a low awareness among other health workers. A study done by Phalkey et al points out that the primary health care system was clearly ill-prepared for a flood disaster in Orissa in 2008. 11 A study done by Gladston et al shows that only 24.5% of nurses in a pediatric acute care setting in a tertiary hospital in south India had adequate knowledge on disaster preparedness.¹² Sharma et al also shows a low level of awareness and preparedness for disasters among hospital workers in the country. 13 The knowledge about disaster management and preparedness for managing disasters was observed to be low even among medical students according to a study conducted by Sinha et al. ¹⁴ So by the study and the literature search it is evident that the level of preparedness and awareness regarding disaster management is low across all the categories of health professionals.

The present study used quantitative methods to assess preparedness and awareness. A qualitative approach may have been more fruitful in assessing the existing gaps in knowledge about the same among the study participants. As only limited literature was available on the subject in the same context, the study could not be benefited by comparison with other studies.

CONCLUSION

The awareness about disaster management among ASHAs is very poor. None of the Accredited Social Health Workers had received any training on disaster management and preparedness. We recommend training programs and mock drills for frontline health workers to improve awareness and disaster preparedness. Interactive workshops with annual updates and assessments should be arranged in all primary health centres to improve awareness among ASHAs.

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