

## The Role of Nursing in Crises and Disasters

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### Abstract

The current study aims what is the meaning of disasters, what is the relationship between national disasters and high rates of disease and mortality? what is the relationship between nursing care during emergencies and disasters? Is there a specialized department concerned with disasters and crises in Saudi Arabia? Are there courses and training plans dealing with disasters and crises in the workplaces? A questionnaire was prepared via Google Drive and distributed to the population aged 25-55 years, men and women in city of mecca. As for the questionnaire, it was distributed via the social networking program (WhatsApp) for the purpose of distancing for fear of the presence of the Corona virus. 380 questionnaires were distributed, 365 responses were obtained via email to the principal researcher. This study concluded that nursing provides many nursing services to the injured during emergencies, crises, and natural disasters, checking for fractures or dislocations in the body or limbs, and if the bones are visible, they must be covered with a clean, sterile bandage, and not move the injured person if the fracture is in the spine. Apply clean, sterile bandages to other wounds. The patient should also be closely monitored and given any possible nursing care with any type of belt and chemical, manual, or mechanical restraints according to the doctor's orders and instructions, according to the opinions of 94.4% of participants.

**Keywords:** role, of nursing, in crises, and disasters.

## 1. Introduction

United Nations <sup>(1)</sup> defines disaster as “a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts”. <sup>(2)</sup> definition for disaster is in line with UN’s: “Disaster is a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources”. <sup>(3)</sup> definition follows WHO’s definition. IFRC sees disaster as “a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources”. IFRC also adds to definition that disasters are often caused by natural reasons but can also have human origins. <sup>(4)</sup> has typed disasters into two categories: natural hazards or technological and man-made hazards. Natural hazards occur naturally as geophysical (e.g. tsunamis, earthquakes, volcanic activity), hydrological (e.g. floods or avalanches), climatological (e.g. drought or extreme temperatures), meteorological (e.g. storms or cyclones) or biological (e.g. disease epidemics) phenomena. Man-made or technological disasters takes place close to human settlements and are caused by human (e.g. conflicts, displaced populations, industrial accidents). Crisis Management means preparing for what might happen and dealing with what has happened. It is no secret to anyone who follows the course of events, especially political ones, and the role that crises of all kinds have in the history of peoples and societies, whether on the level of demolition or construction, and a careful reading of the role of the crisis in general. This leads us to touch a thread that leads us to the fact that the societies in which the leadership hierarchy relied on special and competent teams to deal with crises were stronger and more resilient and persistent than their counterparts who adopted a different approach, represented by improvised confrontation and dealing in ways that were not thought out in advance with hotbeds of conflict and tension. This led to its weakness and disintegration, as apparent crises accompany all nations and peoples in all stages of emergence, advancement, and decline. <sup>(5)</sup> Estimated one in five countries faces disaster every year. Natural hazards have been primary type of disaster in last ten years affecting over 2 billion people. <sup>(6)</sup>, natural hazards have been primary type of disaster in last ten years affecting over 2 billion people. Most often disasters were caused by weather related hazards such as floods, storms, drought and extreme temperatures. Most of the people affected have been in Asia. <sup>(3)</sup> In addition, <sup>(6)</sup> estimated 201,5 million people in 134 countries are in need for humanitarian assistance because of ongoing and new crises. Most 8countries in need for humanitarian assistance were affected by multiple type of crisis including both conflicts and disasters associated with natural hazards. <sup>(6)</sup>. In literature, terms of emergency and disaster are often used simultaneously and together but definitions vary by the source. By WHO’s <sup>(2)</sup> definition emergency is term describing a state, “state of emergency”. This means that emergency is managerial term, it is demanded to be declared by authority. The UN has <sup>(1)</sup> defined emergency as interchangeable term to disaster, but it may be also used related to hazardous events that do not disrupt the functioning of the society or community as disasters do. For clarification, the term ‘disaster’ is used in this thesis to refer to all situations which would fulfil characteristics of both emergency and disaster. These are situations which affects large populations’ health and where nurses are in front line taking care

of people Estimated 201,5 million people in 134 countries are in need for humanitarian assistance because of ongoing and new crises. No country is immune to disasters' causes on health. <sup>(6)</sup> Disasters cause both direct ill-health and disrupts the systems providing health care. Since disasters cause massive consequences to health, extensive efforts to save lives and reduce suffering are therefore required from health care. <sup>(6; 7)</sup> Nurses work in front line providing wide range of health services in disaster settings with limited resources, serve as first responders, care providers, coordinators of services and providers of information and, at the same time, are usually comprehensive primary health care providers in most countries <sup>(7)</sup>. Significance of nurses during disasters is obvious since nurses are typically and consistently involved in disaster response by being the largest group of human resources of health care providers in disasters <sup>(2)</sup>. Disasters require special attention because of their uncertain, sudden and disintegrating nature. When a disaster strikes, normal day-to-day activities of health care are being challenged by rush of casualties, lack of attending staff and possible damage to facilities. In such incident, the health care professionals find themselves working in new paradigm. with new aim to restore health care services that meets the new demands of community. In these cases, new health teams are often formed quickly without proper resources designated for leadership. A health team leader in disaster situations needs to make time critical decisions based in uncertain data. That is why a style of leadership is being different to the collaborative multi-disciplinary approach most often seen in health care. Therefore, carefully considered and well enhanced leadership is crucial as part of disaster preparedness. <sup>(8)</sup> Therefore, disaster health care delivery and systems can only be successful when nurses have essential and necessary disaster competencies and abilities to respond <sup>(9)</sup>. The role of nurses as key players in disaster situations becomes from nurses' broad caregiving skills, adaptability and creativity, wide range of skills applied to disaster settings and leadership skills nurses have. As Kalanlar <sup>(10)</sup> puts it "Disaster nursing can be defined as systematic usage of nursing knowledge and skills in disasters, and development of practices designed to reduce disaster damages to health and eliminate its life-threatening hazards". Nurses' role evolves from technical skills and knowledge of epidemiology, cultural-familiar structures and psychosocial issues with nurses' strategic role cooperating with broad health and social disciplines. <sup>(9)</sup> Disasters cause massive consequences to health and require massive efforts from health care in saving lives and reducing suffering. Nurses are consistently involved in emergency care after disasters and, in most cases, constitutes the largest group of human resources of health care providers after disaster. Therefore, nurses are obvious part of disaster response and management. Nurses work in front line providing wide range of health services in emergency response by providing curative, promotive, preventive, supportive and rehabilitative care of groups, families and individuals. Nurses often work in difficult situations with limited resources, serve as first responders, care providers, coordinators of services and providers of information and, at the same time, are usually comprehensive primary health care providers in most countries. Therefore, disaster health care delivery and systems can only be successful when nurses have essential and necessary disaster competencies and abilities to respond. <sup>(7; 9)</sup>.

## 2. Material and Methods:

The study began in (the city of Mecca in the Kingdom of Saudi Arabia), and the study ended with writing the data collection in August 2024. The researcher used descriptive analysis, an approach that uses quantitative or qualitative description of the social phenomenon (the role of nursing in crises and disasters) and the variable. The independent variable (the job tasks required of nursing in general) and the dependent variable (the job tasks during disasters and crises). This type of study is characterized by analysis, reason, objectivity, and reality. It is also concerned with individuals and societies, as it studies the variables and their impact on the health of the individual, society, and the consumer, and the spread of diseases and their relationship. For demographic variables such as age, gender, nationality, and marital status. Status and occupation <sup>(11)</sup>, and use the Excel 2010 Office suite pie chart to sort the results <sup>(12)</sup>. The questionnaire is a wonderful and useful tool for collecting a huge amount of data, but the researchers were not able to conduct personal interviews with the participants in the online survey, due to social distancing rules at the time to prevent infection between participants and researchers and vice versa (Coronavirus sharing has not completely disappeared. of the community), and the questionnaire was only answered electronically, because the questionnaire consists of seventeen questions, all of which are closed-ended. The electronic approach has also been used to generate valid samples in similar studies in the Kingdom of Saudi Arabia and elsewhere <sup>(13)</sup>.

## 3. Results and discussion:

The percentage of approval to participate in the research questionnaire (Nursing homes in crises and disasters) reached 100%, and the percentage of participants' ages was as follows: from the ages of 25-34 years, the percentage reached 37%, and from the ages of 35-44 years, it reached 39.8%, and finally from The age of 45-55 years amounted to 23.2%, while the gender of the participants was as follows: the percentage of males was small at 22.7%, while the percentage of female participation was much higher at 77.3%. As for their nationalities, it was as follows: Saudi women and Saudi men. 84.5%, non-Saudis and Saudi women 15.5% and their professions were technicians (doctors, nurses, radiology, pharmacist, anesthesia, optics, infection control, etc.) by 92.1%, and administrators by 7.9%. As for the educational aspect, they were as follows: Certificate High school 2.5%, health diploma 45.8%, university degree 46.3%, holders of master's and doctoral degrees equal 5.4%. As for their answers and responses to the research questionnaire questions, they were as follows: The first question: Do you know the term crises and disasters? 95% yes, and those who answered no and I don't know are equal at 2.5%. The second question is that natural disasters are considered one of the main factors in increasing disease and mortality rates? Yes, 91%, and those who answered no and I do not know, equal to 4.5%. The third question: Nursing aims to provide safe and immediate nursing care to the injured during emergencies and disasters? Yes, 99.4%, no, 0.6%, and I don't know, 0%. The fourth question: Does the specialty of emergency and disaster nursing focus on training nurses in the skills of providing nursing care to emergency patients, their families, and disaster situations? Yes 93.3%, No 2.5%, I don't know 5.7%. The fifth question: "Is there a specialized department that deals with disasters and crises? Yes, 84.8%, no, 1.7%, and I don't know, 13.5%. The sixth question: Does it have an approved work manual that deals with crises and disasters? Yes, 75.4%,

no, 8.9%, and I don't know, 12.6%. The seventh question: Does the emergency nurse's task include taking the patient's vital signs, aiding the patient quickly, for example if he is suffering from bleeding, working to stop it, reassuring the patient and working to reduce his fear, following up on the condition with the doctor, and giving the patient the necessary medications? Yes 97, 2%, not 1%, and I don't know 11.8%. Question Eight: Have you ever received training courses on crises and disasters? Yes 57% and No 41.9% I don't know 1.1%. Question 9: Have training plans for crises and disasters ever been made? Yes 74.3% and No 18.4% I don't know 7.3%. Question ten: Are field experiments conducted for crisis and disaster plans? Yes 77% and No 7.3% I don't know 15.7%. Question eleven: Are field experiments conducted for crisis and disaster plans periodically throughout the year? Yes 69.3% and No 10.1% I don't know 20.7%. Question 12: Are field trials of crisis and disaster plans for fires conducted with the relevant authorities (civil defense, police, etc.)? Yes, 71.3%, No, 10.1%, I don't know, 18.5%. Question Thirteen: Is there a mechanism to activate these plans during crises and disasters? Yes, 81.1%, No, 3.5%, I don't know, 15.4%. Question fourteen: The role of the nurse in the event of disasters is as follows: making every effort to save the life of the injured person, taking care of the wound until ambulance is completed, alleviating the patient's pain as much as possible, giving the injured person and his family emotional support? Yes 96.1% and no 2.9% I don't know 1%. Question fifteen: The care required for the patient in cases of emergency and natural disasters focuses on checking breathing, checking the heartbeat, looking for the presence of bleeding, distinguishing between venous, arterial, and capillary bleeding, identifying the pressure areas specific to each bleeding, leaving the patient lying down and covered if the injured person loses consciousness, and one must not Giving him anything orally? Yes, 91%, no, 7%, and I don't know, 2%. Question sixteen: The nursing staff must look for fractures or dislocations in the body or limbs. If the bones are visible, they must be covered with a clean, sterile bandage. The injured person must not be moved if the fracture is in the spine, and clean and sterile bandages must be placed on the other wounds. The patient should also be closely monitored and given any possible nursing care with what type of belts and restraints, chemical, manual or mechanical, as per the doctor's orders and instructions? Yes 94.9%, no 1%, and I don't know 4.1%. Question Seventeen: The emergency cases that are dealt with during emergencies and natural disasters are internal bleeding, external bleeding, cardiopulmonary resuscitation, cardiac emergency, stroke, bone, joint and muscle injuries, suffocation, drowning, burns, sunstroke, loss of consciousness, sting. Snake and scorpion sting? Yes 94.4%, No 1%, and I don't know 4.6%.(table.No.1).

Table.1: Participants' opinions regarding the role of nursing in disaster crises

Role of nursing	Yes	No	I don't know
Make every effort to save the life of the injured person take care of the wound until ambulance is completed relieve the patient's pain as much as possible provide the injured person and his family with emotional support	94.9%	2.9%	1%
The care required for the patient in cases of emergency and natural disasters focuses on examining breathing, examining the heartbeat, looking for the presence of bleeding, distinguishing between venous, arterial, and capillary bleeding, identifying the pressure areas for each bleeding, leaving the patient lying down and covered if the injured person loses consciousness, and he must not be given anything about Oral route	91%	7%	2%

The nursing staff must look for fractures or dislocations in the body or limbs, and if the bones are visible, they must be covered with a clean, sterile bandage. The injured person must not be moved if the fracture is in the spine, and clean and sterile bandages must be placed on the other wounds. The patient should also be closely monitored and given any possible nursing care with any type of belts and restraints, chemical, manual or mechanical, according to the doctor's orders and instructions.	94.9%	1%	4.1%
The emergency cases that are dealt with during emergencies and natural disasters are internal bleeding, external bleeding, cardiopulmonary resuscitation, cardiac emergency, stroke, bone, joint and muscle injuries, suffocation, drowning, burns, sunstroke, loss of consciousness, snake bite and scorpion sting.	94.4%	1%	4.6%

#### 4. Conclusion:

The role of nursing is great and great, as it aims to provide safe and immediate nursing care to the injured during emergency situations and disasters, according to the opinions of the participants by 99.4%. It also focuses on training nurses on the skills of providing nursing care to emergency patients and their families and disaster situations by 93.3%. It also focuses on taking the patient's vital signs, quickly treating the patient for bleeding, and working to stop it. Reassuring the patient and working to reduce his fear, following up the case with the doctor, giving the patient the necessary medications at a rate of 97.2%, This study concluded, In addition to the importance of the nursing role, there is the importance of preparedness and continuous training for emergency and crisis situations. This is the same result as the study of Mohammadreza Firouzkouh<sup>(14)</sup>

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