THE ROLE, PREPAREDNESS AND MANAGEMENT OF NURSES DURING DISASTERS

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Abstract

This study attempted to identify potential knowledge regarding special health care needs. As a nurse, we should be able to respond in all serious events that could threaten the life of others. As a researcher every nurse must seek for new challenges on disaster management and emergency responses. The present study is engaged to determine and assess the nurses' role, preparedness and management during disaster. Also it aimed to determine how nurses in different areas of specialization immediately prioritize the needs of people in times of unexpected situation. Furthermore, it determines the plan of action that may enhance the role, preparedness and management during disaster. The study is a descriptive survey design and utilized self-made questionnaire as the main tool in gathering data needed in the study. Also, it aims to identify the demographic profile in terms of age, gender, civil status, religious affiliation, years of service and area of specialization and to test the hypothesis of significant relationship between these profile variables and the respondent's perception of their roles, preparedness and management skills during disaster situations. It also aims to assess aggregately the respondent's perception of the cited variables and test whether there are significant differences among them. Results revealed that the majority of the respondents are very much equipped with knowledge, skills and attitude in facing real life situations. All medical allied personnel should be readily available in times of disasters and emergencies so that they could be of greater help to the clients, the community and the nation as a whole. Thus, Department of Health may use this study since emergency preparedness is a program of long term development activities which goals are to strengthen the overall capacity and capability of a country to manage efficiently all types of emergency.

Keywords: *Role, Preparedness and Management of Nurses*

Introduction

Disaster refers to an event or situation that is of greater magnitude than an emergency; disrupts essential services such as housing, transportation, communications, sanitation, water and health care; and requires the response of people outside the community affected. The term disaster particularly signifies an event that carries unforeseen, serious, and immediate threats to public health. Disaster is any occurrence that causes damage, economic disruption, loss of human life and deterioration in health services on a scale sufficient to warrant an extraordinary response from outside the affected community area according to World Health Organization.

The unpredictable occurrence of disasters, whether man-made or natural, consequently makes it uncontrollable and inevitable. Further, its devastating impact on human life and properties necessitates man's preventive and collaborative efforts to minimize or prevent greater damages as it occurs. Though it may not be possible to control nature and to stop the development of natural phenomena, the efforts could be made to avoid disaster and alleviate their effects on human lives. It is in this connection that the roles, preparedness and management of a medical team including the nurses are deemed essential.

Preventing, preparing for, responding to, and recovering from disasters and emergencies has become a priority for everyone. Since Florence Nightingale demonstrated to the world the important role that nurses play on the front lines of responding to disasters, the field of public health and disaster nursing has continued to expand its scope and define its significance. No single entity, discipline, agency, organization or jurisdiction can or should claim sole responsibility for the complex array of challenges associated with disasters and emergencies, both natural and manmade. However, public health nursing expertise can and should be used during all phases of the disaster cycle: mitigation, preparation, response, and recovery (Federal Emergency Management Agency, 2006a).

Public health nurses contribute specific skills in times of disaster. They serve not only as first responders to some events, but also embrace a population-based vision with the necessary skills and competencies to develop policies and comprehensive plans, conduct and evaluate disaster response drills, exercises and trainings. Public health nurses are integral members in disaster operations and command centers, in leadership and management roles, as well as in the field where they provide frontline disaster health and core public health services.

Public health nurses collaborate with other experts, including environmentalists, epidemiologists, laboratory workers, biostatisticians, physicians, social workers and many others. One of the most exciting challenges for public health nurses, whether in the disaster management center or in a disaster shelter for hurricane victims, is to collaborate with other workers from other disciplines to enhance the response infrastructure at the local, regional, state, national and global levels.

Nurses have been a part of disaster preparedness and response as long as nurses have existed. Although the early nurses who responded to emergencies during historic events may have been something other than the fully educated, licensed, certified, professional nurses as we know them today, their described role is consistent with a modern understanding of nursing: attention to the injured or ill individual; assuring provision of water, food, clean dressings, and bedding; providing relief from pain; and offering a human touch that says "I care." Nurses have

special role in advocating systematic profit-driven health care services during disaster. Nurses are needed for prevention, surveillance, and response of every type.

Nurses are a part of the response mounted each time there is a report of a weather or geological event, such as an earthquake, flood, or tsunami. Health nurses are routinely assigned to assist in triage and screening for health problems, administration of first aid and psychological support, implementation of infection control procedures, and monitoring so that the congregate living situation does not lead to an outbreak of disease. They have always been key players during epidemic situations by performing contact tracing and conducting case investigations, engaging in surveillance and reporting, collecting specimens, administering immunizations, and educating the community. Hence, nurses are a key staff member behind the rapid establishment of refugee camps for those who need shelter.

The objective of disaster preparedness is to ensure that appropriate systems, procedure, and resources are in place to provide prompt effective assistance to disaster victims, thus facilitating relief measures and rehabilitation of services. It includes all of the activities that need to be carried out prior to a disaster to ensure that disaster response activities run as smoothly as possible. This typically means that disaster and business continuity plans are in place, understood and ready to be used.

Based on the foregoing discussions, the researchers were prompted to conduct a study on the roles, preparedness and management competencies of nurses as applied in disaster situations. The intent of this study is to provide nurses with the knowledge needed to care for patients with a variety of acute illnesses and injuries. The study will also review basic principles of patient management, disaster management, and selected professional issues common to disaster nursing. The great challenges nurses face in responding to natural, manmade, and technological disasters in comparison with the little time spent in teaching or learning this content during the basic nursing education program makes this study a timely one and relevant to the needs of nursing students as it provides further information that would somehow enhance knowledge, skills and attitude in relation to their future nursing career. Further, this study also enriches the researchers' experiences in conducting investigations and preparing research manuscript. Premised on the foregoing rationalizations, this study was conducted.

Objectives of the Study

This study aims to identify the demographic profile of the nurse-respondents in terms of age, gender, civil status, religious affiliation, years of service and area of specialization. It also aimed to determine the role, preparedness and management of employed by nurses during disaster. The study tested the hypothesis of significant relationship between these profile variables and the respondents' perception of their roles, preparedness and management skills during disaster situations. It also aims to assess aggregately the respondents' perception of the cited variables and test whether there are significant differences among them.

Methods

This section presents a discussion of some important aspects of research methods and procedures such as research design, participants of the study, data gathering procedures and statistical analysis in this study.

Research Design

This study employed the descriptive method since it aimed to determine current trends, status and practices of nurses during disaster situations, specifically in their application of roles, preparedness and management competencies. It also correlated the assessment of the nurse's roles, preparedness and management with their demographic data.

According to Javier (2006), descriptive design is applied to estimate the extent to which variables are related to each other. Descriptive Research Design describes the variables and examines the relationship among this variable. Using this design, it will help us how to identify the interrelationship of a certain situation (Polit and Tetanobeck, 2008).

Calmorin and Calmorin (2003) cited that descriptive research focuses at the present condition, the purpose of which is to find new truth. Descriptive research is also valuable in providing facts on which scientific judgments may be based. Further, Garcia (2003) cited that descriptive research endeavors to describe systematically, functionally, accurately and objectively a situation, problem or phenomena.

Participants of the study

The target number of respondents is 250. Respondents were chosen based on the criteria that they must have been in the service in any area of specialization of nursing such as community, hospital, school, clinic or industrial. Systematic Random Sampling was utilized in order to get the sample respondents in the said different areas of specialization in nursing.

Data Gathering Instruments

A self made questionnaire was used as the major tool in gathering the data needed in this study. It was divided into four parts, the first of which was on the respondents' demographic profile in terms of age, gender, civil status, religion, years of service and area of specialization. Consecutively, the other parts focused on the roles, preparedness and management of nurses during disaster.

The questionnaire was provided with a clear direction instructing the respondents to check the options which signify either "agree" or "disagree" response depending on the assigned weight.

Data Gathering Procedures

A letter of request to conduct a survey was sent to the following: Medical Directors of the selected hospitals in Batangas, Selected Clinics in Batangas, Barangay Captains in Batangas, School Directors in selected schools in Batangas, and to the President of selected companies in Batangas. After receiving their approval of our request, we personally disseminated the questionnaires to the respondents and assured them their anonymity. After the retrieval of the filled-up questionnaires, the data were tallied, tabulated and interpreted using statistical measures by statistician.

Statistical Treatment of Data

Data were analyzed using descriptive and inferential statistics. These statistics include the following:

Percentage. This statistics was used to analyze and organize the frequency distribution of the respondents according to specific demographic profile variables that include age, gender, civil status, religion, years of service and area of specialization.

Pearson Product Moment Correlation Coefficient. This statistics was used to test the hypothesis of relationship between paired variables.

Results and Discussions

This part of the study presents data in tabular form supported with corresponding analysis, interpretation and theoretical base.

Table 2
Roles of Nurses in Disaster Situations
N = 149

Indications	Weighted Mean	Standard Deviation	Interpretation
1. I provide quality health care for people regardless of their age, gender and type of disease or reason for seeking medical attention.	4.59	0.69	Agree
2. I am able to balance compassion with professionalism, while arranging appropriate care and identifying symptoms and problems.	4.50	0.61	Agree
3. I perform contact tracing and conducting investigations, engaging in surveillance and reporting, collecting specimens, administering immunizations and educating the community.	4.18	0.88	Agree
4. I am able to continue to be key players in local and national level emergency response.	4.21	0.71	Agree
5. I take responsibilities on prevention, surveillance and response during disasters.	4.29	0.69	Agree
6. I am prepared for future acts of terrorism and equipped to care for victims in their respective nursing environments.	4.02	0.74	Agree
7. I have better plans for silent disasters that may evolve over time from natural or	4.33	0.66	Agree

accidental event.	4.29	0.75	Agree
8. I am totally equipped with confidence and knowledge and I appreciate unique talents and specific roles of my colleagues on the response team and works to integrate efforts into the team.	4.35	0.63	Agree
9. I am able to respond timely to emergency situations and assure to open communication to patients, families and other medical professionals in order to provide accurate medical therapeutic intervention.	4.52	0.67	Agree
10. I take action to diverse tasks with professionalism, efficiency and above all-caring.			
Composite Mean	**4.33**	**0.70**	**Agree**

In view of the diverse tasks associated with professionalism and efficiency, Harris and Halper (2004) cited that such nursing roles as those of establishing care, continuing care and sustaining care to patients were interwoven to provide a framework for a comprehensive, cohesive model for nursing practice that can be applied to care of all patients, regardless of disease classification or level of disability.

Further, Qureshi, Gershon, Gebbie, Straub, & Morse (2005) averred that the nurses' role may entail different duties such as back-up staff member in the intensive care unit, supporting families in the emergency department, being on call at home or reporting for duty at the local health department.

In rank three, that of balancing compassion with professionalism, while arranging appropriate care and identifying symptoms and problems posted a weighted mean of 4.50. Compassion is truly a part of the caring-healing model of nursing, but apart from it should be some form of boundary as that of the sense of professionalism. Care and compassion for the weak, sick, and injured should be linked with professionalism and ethical standards of nursing.

In relation to the cited findings and implications, The American Holistic Nurses' Association (2007) suggested that each nurse has a responsibility towards the client, co-workers, nursing practice, the profession of nursing, society, and the environment. The nurse strives to manipulate the client's environment to become one of peace, harmony, and nurturance so that healing may take place. The nurse considers the health of the ecosystem in relation to the need for health, safety, and peace of all persons. Therefore, holistic nurses take care to create an

environment conducive to healing and focus care on interventions that promote peace, comfort and a subjective sense of harmony for the client.

On the other hand the three indicators with lowest weighted means of 4.02, 4.18 and 4.21 are as follow: being prepared for future acts of terrorism and equipped to care for victims in their respective nursing environments, performing contact tracing and conducting investigations, engaging in surveillance and reporting, collecting specimens, administering immunizations and educating the community and continuing to be key players in local and national level emergency response. These findings do not indicate negative responses because all the given items posted ***"agree"*** responses. It only means that these items posted the lowest weighted means but still within the ***"agree"*** scale.

The cited roles definitely pointed out critical situations such as terrorism from which the victims need the caring, healing and therapeutic functions of nurses. Further,
the nurses also act as teachers and guidance counselors through educating the victims in terms of caring for their health and avoiding unhealthy practices. In such disastrous situations, the nurses' roles are truly essential.

As stressed by the American Holistic Nurses' Association (2007), the fundamental roles and responsibilities of the nurse are to promote health, facilitate healing, and alleviate suffering. Inherent in nursing is the respect for life, dignity, and the rights of all persons. Nursing care is given a context mindful of the holistic nature of humans, understanding the body-mind-spirit.

Further, Grant (2002) cited that nurses should be knowledgeable about his or her role during disaster. This may include triage, coordination of the first aid response team, and direct hands-on care to victims of the emergency. As licensed health care professionals, they should respond to all serious adverse events that threaten the health, safety, or well-being of a population. As advocates for safety, they must address new challenges. The nurse has an important role before, during, and after an emergency.

As a whole, preventing, preparing for, responding to, and recovering from disasters and emergencies has become a priority role not only for nurses but for everyone as well.

In addition to the presented weighted mean values, the standard deviation values ranging from 0.61 to 0.88 with an average of 0.70 signify a very close dispersal of the weighted responses forwarded by the respondents. This implies that they have an almost similar point of view regarding the items provided in the table.

Table 3 on the following page pertains to the preparedness of nurses during disaster, with a composite mean of 5.28, with ***"agree"*** descriptive interpretation and an average standard deviation of 0.81 indicating close dispersal of the assessed variables.

In rank one, the nurses agreed that they use the basic and continuing education to improve understanding of the need for competency in emergency response, as sustained by the highest weighted mean of 5.53.

Table 3

Preparedness of Nurses in Disaster Situations
N = 149

Indications	Weighted Mean	Standard Deviation	Interpretation
1. I use the basic and continuing education to improve understanding of the need for competency in emergency response.	5.53	0.63	Agree
2. I am prepared with competency training to respond in a critical system of scenarios.	5.19	0.86	Agree
3. I have balance knowledge on emergency response in contrast with the signs, symptoms and clinical management of the injuries and illnesses caused by specific agents of disasters.	5.17	0.81	Agree
4. I have practical experience in providing care to a small or large scale disaster and use this experience to facilitate care to patients.	5.17	0.88	Agree
5. I believe that not all nurses will be first responders but they are prepared to recognize what actions should be helpful in stages of response.	5.28	0.75	Agree
6. I believe that my institution develops a better preparation for emergency to improve coordination between public health and hospital based sectors.	5.39	0.81	Agree
7. I am educated enough to have knowledge and skill related to mass casualty events.	5.32	0.73	Agree
8. I must stress the importance of being mentally prepared and having deep reserves of empathy for people who are much affected by the catastrophe.	5.26	0.77	Agree
9. I can prepare and learn together with others resulting in smoother team performance.	5.24	0.84	Agree
	5.20	0.97	Agree

10. I believe that there is a lack of emergency preparedness in some institutions and instances where nurses are involved.			
Composite Mean	**5.28**	**0.81**	**Agree**

The cited finding indicates the significance of continuing education on the nurses' preparedness during disaster situations, which implies the need for nurses' participation in trainings and seminars for professional growth and development. It is to be noted that the rising trends in modern technology necessitates the nurses' awareness to the benefits of technology on their performance of nursing functions. Hence, this could be one of the best ways to cope with preparedness standard during disaster situations.

In support to the cited finding and implication, Silber (2005) cited that basic competency training is essential and systems need to be in place to provide just-in-time training for particular, less common scenarios or problems, given the specifics of the event.

Further, Bruley (2008) averred that continuous integration, coordination, and training of all community members are the keys to the reduction of injury and death in any disaster and the nurse can play a crucial role in providing for the physical and emotional needs of a given population over an extended period of time.

Along this line, Piercey (2002) averred the significance of training and continuing education in the nurses' further acquisition of professional competencies. As professionals who solve problem for service in their particular discipline, nurses should continue striving for professional growth and development through enhancement of technical or specialized knowledge and skills.

The second highest weighted mean of 5.39 was revealed on that of the nurses' belief that the institution they belong to develops a better preparation for emergency to improve coordination between public health and hospital based sectors. This finding pointed out the trust and confidence of the nurses to their respective institution or organization, specifically in terms of the cited variable.

In relation to cited finding and implication, The Office of the Surgeon General (2006) cited that as hospitals and communities plan more comprehensively for a range of disaster events, it has become clear that nurses are key for meeting surge capacity needs, whether these needs are in the field conducting surveillance, in shelters or mass medication/vaccination dispensing sites, in departments of health staffing public education/information hot lines, or in hospitals that are rapidly admitting patients in numbers far exceeding the typical census.

These varied assignments by the organization help the nurses develop further competencies and in turn, the nurses show sign of respect for their respective organizations.

In rank three, the nurses also agreed that they are educated enough to have knowledge and skill related to mass casualty events, as indicated by a weighted mean of 5.32. This finding implies the educational activities and training attended by the nurses in preparation for their performance of functions during disaster situations. The fundamental goal of nursing, to assist individuals to their highest possible level of functioning in the face of health and illness challenges, is never more needed than under emergency conditions. While an emergency does not allow the luxury of long-term planning or extensive patient education on health promotion, the skills and abilities of nurses can assure prompt triage, essential nourishment, relief from

physical and emotional pain, and support while planning for personal and family actions to resume ordinary routines of life.

In support to the cited finding and implication, an excerpt from Encyclopedia Wikipedia cited some methods of preparation for specific or unpredictable events or situations which include research, estimation, planning, resourcing, education and rehearsing.

On the other hand, Gebbie&Qureshi (2006) and Wynd (2006) cited that nurses have been involved in disaster preparedness and response for as long as nursing has existed. However, since 9/11, it has been acknowledged that nursing knowledge and competencies related to mass casualties should be defined, so that all can be assured that nurses know what they are doing during a catastrophic event.

Further, Piercey (2002) averred the significance of training and continuing education in the nurses' further acquisition of professional competencies. As professionals who solve problem for service in their particular discipline, nurses should continue striving for professional growth and development through enhancement of technical or specialized knowledge and skills. Premised on this, nurses who are more adequately prepared tend to improve caring services to optimum level which redounds to the benefit of the clients.

Meanwhile, the three indicators which garnered the lowest weighted means of 5.17, 5.17 and 5.19 are as follow: being prepared with competency training to respond in a critical system of scenarios, have balance knowledge on emergency response in contrast with the signs, symptoms and clinical management of the injuries and illnesses caused by specific agents of disasters, and have practical experience in providing care to a small or large scale disaster.

This experience is used to facilitate care to patients. The cited findings, although at the bottom of weighted mean values, do not represent a negative connotation since they commonly have ***"agree"*** descriptive interpretation.

Indeed, knowledge, skills and competencies in terms of being prepared in disaster situations are very much significant in the nurses' performance of functions. These stem from their education as preparation for the profession, trainings, seminars and workshops related to caring functions. Hence, a conglomeration of the cited pursuits could lead to the nurses' further professional growth and development. Most likely, Related Learning Experience (RLE) as a subject in the nursing course could be of help to the students, while trainings and seminars to the nurses. It should be noted, however, that attitude also plays a significant role in the nurses' development of competencies.

In relation to the foregoing, Piercey (2002) averred the significance of training and continuing education in the nurses' further acquisition of professional competencies. As professionals who solve problem for service in their particular discipline, nurses should continue striving for professional growth and development through enhancement of technical or specialized knowledge and skills.

Bruley (2008), on the other hand, stressed the significance of continuous integration, coordination, and training in reducing injury and death in any disaster. Further, the nurse plays a

crucial role in all of the above. Further, Cox, et al. (2004) alleged that skills in applying the nursing process enable the preparedness of nurses in times of disaster. In addition, Doenges and Moorhouse (2003) averred that knowledge of scientific and nursing practice principles is necessary to prioritize correctly.

Table 4 reflects the respondents' assessment of their management activities during disaster, with a composite mean of 5.16, indicating "agree" descriptive interpretation. On the other hand, the average standard deviation of 0.82 indicates a moderate level of dispersal on the respondents' weighted assessments.

In rank one, the highest weighted mean of 5.54 was posted on planning as a need for incoming, evacuation and provision of care to patients during disaster.

Table 4

Management of Nurses in Disaster Situations
N = 149

Indications	Weighted Mean	Standard Deviation	Interpretation
1. I consider that planning is needed for incoming, evacuation and provision of care to patients during disaster.	5.54	0.61	Agree
2. All sectors of health care, including myself and other responders are required to utilize incident management.	5.30	0.65	Agree
3. I develop mechanisms to increase rush capacity capability, noting that nurses are the largest group professionals during disaster.	5.29	0.70	Agree
4. I respond to disasters but consider that the government resources are not fully apportioned to each patient.	4.91	1.01	Agree
5. I believe that in handling of emergency situations, especially in case of mental health patients who are prone to violence requires the expertise of a disaster management team.	5.22	0.72	Agree
6. Cultural competence must become part of disaster management to every community because not all	4.97	0.98	Agree

times, there will be outsiders arriving to help.	4.76	1.02	Agree
7. In my institution, there is a knowledge deficit in health care since the assessment of the patient and where they are coming from are not fully understood.	5.09	0.79	Agree
8. When catastrophe strikes, I work systematically to ensure that no one is abandoned, especially in access of isolated areas.	5.07	0.89	Agree
9. I identify the signs and symptoms of traumatic injury or incident when responding to disasters.	5.44	0.78	Agree
10. I remain calmed even the situation is difficult to handle.			
Composite Mean	**5.16**	**0.82**	**Agree**

Indeed, planning and conceptualization is one of the most important areas of management. Without plans, there could be no better realization of activities. This only shows that in order to come up with a rich management for disaster, planning ahead of time is one of the most important aspect nurses should be prepared for. Disaster plans for nursing homes have focused on fires and weather events such as floods, storms, etc. In this era, disaster planning needs to be expanded to include new potential threats. These include disruption of multiple services to the facility, such as power, telephone, etc.; disruption of mass transit or closure of highways used by staff to commute to work; release of bioterrorism agents in surrounding community with potential impact on residents, staff, and neighbors; and the possible role of triage and emergency care provider in a mass casualty event.

In relation to the cited finding and implications, Saucier and Gerst (2005) stressed that effective care management requires care managers who are knowledgeable about diseases and capable of identifying needs and managing services for disaster victims. Care managers must have the training and specific skills to carry out the following essential tasks: a comprehensive assessment of the person with disease; development and management of a comprehensive plan of care, with the involvement of the client and family or other caregiver; ongoing communication with the client, which becomes increasingly challenging as the condition progresses; linkages with health and long term care service providers that are capable of providing quality care to ensure that the client receives the needed services; consultation with families and providers on care issues and management of behavioral symptoms.

The same authors added that plans must establish procedures for appeals and grievances that include assistance.

Further, Stevenson (2008) cited that when caring for patients, RNs establish a care plan or contribute to an existing plan. Plans may include numerous activities, such as administering medication, including careful checking of dosages and avoiding interactions; starting, maintaining, and discontinuing intravenous (IV) lines for fluid, medication, blood, and blood

products; administering therapies and treatments; observing the patient and recording those observations; and consulting with physicians and other healthcare clinicians.

In view of the foregoing claim, Johnson (2005) averred that nurses must possess management competencies which they may use in their performance of nursing functions during disaster situations.

With the second highest mean of 5.44, nurses remain calmed even the situation is difficult to handle. Nurses are expected to be calm in order to think well and be coordinated with the other health care team. Proper management of stress during an emergency situation provides a calming environment that enables the nurse to work in accordance to the needs of the situation. And lastly, as the third highest mean of 5.29, nurses develop mechanisms to increase rush capacity capability, noting that nurses are the largest group of professionals during disaster.

Management of disasters requires efficient and effective techniques and strategies. As cited by Landesman (2006), nurses during disasters are organized according to specific functions and professional qualifications. Systematic procedures are necessarily followed to avoid overlapping of functions and responsibilities. Hence, the process of organizing groups of nurses also requires evaluation of nurses' professional qualities, working experience, area of specialization and other matters deemed essential in managing nurses and organizing varied activities. It is in this connection that management plays a crucial role not only during catastrophic situations but in normal situations as well.

Procedures and techniques on management of disasters were cited by Stonuart (2006). Basically, planning for incoming evacuation and provision of care for the victims is essential. The medical teams including the nurses are deployed in groups according to area of specialization, while the place is prepared systematically to avoid overcrowding and ensure mobility among members of the medical team.

Meanwhile, the three items with lowest weighted means of 4.76, 4.91 and 4.97 are as follow: knowledge deficit in health care since the assessment of the patient and where they are coming from are not fully understood, responding to disasters but considering that the government resources are not fully apportioned to each patient, and cultural competence must become part of disaster management to every community because not all times, there will be outsiders arriving to help.

The above findings, although having the lowest weighted means, do not necessarily mean some negative implication since they were all descriptively ***"agree"***. However, there was some hint of negative implication on that of knowledge deficit although the statement was supported by valid reason. As a whole, however, the findings reveal the nurses' satisfactory management competency.

In support to the foregoing, the study of Rayos (2005) found out that the management competencies of nurses in selected hospitals in Lipa City were satisfactory and the most observed was clinical management skills.

Meanwhile, Tzeng (2004), in her study of nurses' management competencies, found out a significant relationship between job performance and level of nursing care quality as well as between management competency and job performance. In relation to disaster situations, the study pointed out that the nurses' management competencies help in establishing order throughout the entire length of medical operations, thus preventing the advancement of destruction and its threatening effects.

Further, Swartz and Schmitt (2001) added that nursing management includes assessing, nursing history, mental status examination, physical examination, identification of clients at risk chart environment and social support networks.

Table 5.1 manifests the summarized data on the compared assessment of the respondents grouped by age on the nurses' role, preparedness and management during disaster.

Table 5.1

Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Age
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	1.78	0.121	Not significant
Preparedness	1.11	0.359	Not Significant
Management	0.70	0.629	Not Significant

The above table shows no significant differences on the respondents' assessment of their roles, preparedness and management during disaster when they were grouped according to age. This finding was supported by respective computed F values of 1.78, 1.11 and 0.70, all of which did not exceed the tabular F value of 2.38 at 0.05 level of significance based on five degrees of freedom for the numerator and 54 for the denominator. The finding further means that the responses of the respondents grouped by age were tightly close to one another, which implies their awareness of their significant roles, they are readily prepared and they can manage even critical situations during disasters. Age, therefore, did not affect variation on their responses. Hence, there is a significant relationship between the respondents' age profile and their assessment of their roles, preparedness and management during disaster. For clarification of the cited finding, it should be noted here that a statistical relationship is just the opposite of a statistical difference. Premised on the cited statistical inference, a finding that connotes no significant difference means there is a significant relationship.

In support to the above findings and implications, the study of De la Cruz (2009) noted a significant relationship between the nurses' demographic profile variables and their performance of nursing functions. More specifically, she identified a close level of performance among nurses grouped by age, educational attainment, civil status and length of experience in the nursing profession.

Table 5.2reflects the summarized data on the compared assessment of the respondents grouped by gender on the nurses' role, preparedness and management during disaster.

Table 5.2

Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Gender
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	4.166	0.017	Significant
Preparedness	2.731	0.068	Not Significant
Management	3.079	0.049	Significant

The above table manifests significant differences between the assessment of the male and female nurses in terms of role and management during disaster, as revealed by respective computed F values of 4.166 and 3.079, with probability values of 0.017 and 0.049, both of which did not exceed alpha 0.05. On the other hand, no significant difference was connoted to a computed F value of 2.731 with probability value of 0.068, which exceeded alpha 0.05. This implies a significant relationship in terms of their assessment of preparedness, but no significant relationship on those of role and management during disaster.

The significant differences do not necessarily mean that the respondents took two sides, where in fact both groups posted agree responses. However, the scaling which had three options for agree responses in reference to 4, 5 and 6 could have one group settling for 6 and the other for 4. At any rate, the findings still indicate that the respondents are readily prepared in times of disaster.

They know what to do when confronted with varied critical situations. Such is highly expected since they are skillful enough as brought about by education and training in Related Learning Experiences.

In relation to the cited findings and implications, Stevenson (2008) noted that gender has an impact on the nurses' performance of functions, specifically during catastrophic situations. Further, the preparedness of nurses during disaster situations was assessed by Qureshi, et al. (2005). Regardless of variations in demographic profile, the cited researchers averred that all nurses must be prepared to report to work during a disaster. Meanwhile, the effects of demographic profile variation on the management skills and competencies of nurses were explained in part by Benner as cited by Alligood and Tomey (2002). Furthermore, De la Cruz (2009) averred that gender has a varying effect on the nurses' performance of nursing roles and functions.

As a whole, the preparedness of the respondents during disaster, regardless of gender variation, is considered satisfactory.

Table 5.3reflects the summarized data on the compared assessment of the respondents grouped by civil status on the nurses' role, preparedness and management during disaster.

Table 5.3
Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Civil Status
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	4.682	0.011	Significant
Preparedness	0.459	0.633	Not Significant
Management	0.171	0.843	Not Significant

The above table stressed a significant difference on the variable pertaining to "Role", as sustained by a computed F value of 4.682 associated with a probability value of 0.011 which did not exceed alpha 0.05. This implies no significant relationship.

On the other hand, there was no significant difference in terms of preparedness and management as indicated by respective computed F values of 0.459 and 0.171 paired with probability values of 0.633 and 0.843. Both probability values exceeded alpha 0.05; hence, the insignificant difference on these areas of comparison connotes significant relationship between civil status variable and the groups' assessment of the cited areas. Premised on these, it can be inferred that regardless of civil status variations, the nurses are readily prepared and are able to manage critical situations during disaster.

In relation to the cited findings and implications, Gierlach (2010) averred that nurses grouped by demographic profile variables have both similarities and differences in their responses to disaster situations. The most striking finding is that nurses with families devote less time in these situations than those who are single and without hectic family responsibilities. Hence, the responsibilities toward the immediate family hinder the nurses to spend more time in disaster situations. They also take breaks to attend to the needs of their families (Gierlach, 2010).

In support to the foregoing, Stevenson (2008) noted that civil status has an impact on the nurses' performance of functions, specifically during catastrophic situations.

Table 5.4 unveils the summarized data on the compared assessment of the respondents grouped by religious affiliation on the nurses' role, preparedness and management during disaster.

Table 5.4
Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Religious Affiliations
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	1.769	0.138	Not significant
Preparedness	1.356	0.252	Not Significant
Management	1.008	0.406	Not Significant

Findings on the presented table showed no significant differences among nurses grouped by religious affiliation, as sustained by computed F values of 1.769, 1.356 and 1.008 respectively on role, preparedness and management.

Supportive to the foregoing are the probability values of 0.138, 0.252 and 0.406, all of which exceeded alpha 0.05. These non-significant differences imply the closeness of the respondents' ratings or responses, which connote a significant relationship. Hence, variations in religious affiliations have no effect on the nurses' performance of roles, preparedness and management during disaster. Spiritual belief does not hinder the quality of care being provided to different types of people; rather, it increases their awareness of the uniqueness of each individual patient with regard to the connection between mind, body and spirit. The assessment of the spiritual status of patients during illness and the implementation of holistic care is recommended by the Nursing Code of Ethics.

It should also be stressed that the nurse of this current generation extends caring services to all types of people, regardless of race or religion. In the United States and European countries, Filipino nurses are often serving different races, mostly Protestants.

Greenberg (2006) stressed that career committed nurses are often able to flourish in stressful situations and demanding work since they feel valued and appreciated. It is therefore important to determine the degree of career commitment a nurse has because it directly affects his/her performance of nursing functions. These findings could be attributed to the common ways of the nursing process religiously performed by all nurses regardless of demographic profile variations.

Further, a research by Wendt and Alexander (2007) found that client care provided by nurses was largely the same across the spectrum of specialties, years of experience, geographic region, and facility.

Table 5.5 on the following page shows data on the compared assessment of the respondents grouped by years of service on the nurses' role, preparedness and management during disaster.

The table posted significant differences on the assessment of the respondents grouped by years of service, as confirmed by computed F values of 2.698, 2.827 and 2.795 respectively in for such variables pertaining to role, preparedness and management of nurses during disaster.

Table 5.5
Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Years of Service
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	2.698	0.023	Significant
Preparedness	2.827	0.018	Significant
Management	2.795	0.019	Significant

In support to the cited F values are their probability values of 0.023, 0.018 and 0.019 which did not reach alpha 0.05; hence, beyond the acceptance region. These findings mean

variations on the weighted values pertaining to the responses forwarded by the respondents. Opposite these significant differences implies a statistical non-significant relationship which further means a scattered plot when the values of their responses were graphed according to correlation coefficient values.

In view of the above findings, it can be inferred that the length, quality and nature of experiences and trainings affect variations in terms of acquisition of knowledge and enhancement of skills and competencies. Years of service play a significant factor affecting the nurses' roles, preparedness and management in emergency situations.

Long-term care is provided mostly in skilled nursing facilities for people requiring care that lasts longer than that provided in a hospital for short-term rehabilitation facility. Nursing assistants are an integral part of the long-term care nursing team. Long-term care nursing assistants carry out various specific tasks under the supervision of a registered nurse to help residents maintain dignity, restore and maintain optimal functioning, and provide compassionate care to those who are in the end stages of life.

According to Gierlach (2010), nurses grouped by demographic profile variables have both similarities and differences in their responses to disaster situations. Meanwhile, Stevenson (2008) noted that age, gender, civil status and length of nursing experience have an impact on the nurses' performance of functions, specifically during catastrophic situations. Young nurses are of course more aggressive than older ones.

However, the actions of the more experienced ones are more accurate and faster than the novice nurses. Young nurses are aggressive, but the older ones are decisive.

Variation in the roles, preparedness and management of nurses during disaster situations was also stressed by Landesman (2006), citing that the less experienced ones are given lighter assignments than those who have been in the field for a longer period of time. In the most critical situations, the veterans are assigned to take over while the novices assist them.

Further, the study of Bautista (2008) noted that the variations in terms of hospital assignments and in terms of length of service in the nursing profession affect the nurses' performance of nursing functions. The more complicated functions were revealed to have been delivered to a very satisfactory level by nurses who have stayed longer in the profession, while the neophytes or novices perform the same functions to a moderately satisfactory level.

Furthermore, Silber (2005) emphasized that the amount of training time needed to remain clinically skilled in rare conditions is prohibitive in most settings beyond the emergency and disaster department.

Moreover, the effects of demographic profile variation on the management skills and competencies of nurses were explained in part by Benner as cited by Alligood and Tomey (2002). Using the Dreyfus Model of Skill Acquisition, she identified five different stages of nursing practice ranging from novice to expert. She also cited a distinction between competence and proficiency.

Table 5.6 on the following page shows data on the compared assessment of the respondents grouped by area of specialization on the nurses' role, preparedness and management during disaster.

The table posted no significant differences on the respondents' assessment of their role, preparedness and management when they were grouped according to area of specialization, as sustained by respective computed F values of 0.277, 1.579 and 1.192, all of which did not exceed the critical F value of 2.575 at 95 percent level of confidence based on 4/45 degrees of freedom. Rather, their probability values of 0.892, 0.183 and 0.317 exceeded alpha 0.05, which confirmed that there were no significant differences on their assessment despite their variation on areas of specialization.

Table 5.6
Comparison of Nurses' Role, Preparedness and Management in Emergency Situations Based on Area of Specialization
N = 149, alpha = 0.05

Variables	F	p. value	Interpretation
Role	0.277	0.892	Not significant
Preparedness	1.579	0.183	Not Significant
Management	1.192	0.317	Not Significant

During emergency and disaster situations, nurses have but a common goal – that of minimizing the deteriorating effects of these situations on the life and health of the victims. Premised on this basic goal, they act as one, collaborating and contributing whatever specialization they have for the attainment of such common purpose. Hence, their roles, preparedness and management are pointed towards a single positive direction which connotes a statistical relationship between variables.

Although it is often assumed that an individual's competence improves as that person becomes more experienced, research by Wendt and Alexander (2007) found that client care provided by nurses was largely the same across the spectrum of specialties, years of experience, geographic region, and facility. These findings could be attributed to the common ways of the nursing process religiously performed by all nurses regardless of demographic profile variations.

Meanwhile, Bruley (2008) cited that the nurses' role may be essentially unchanged or it may entail different duties- for example, working as back-up staff member in the intensive care unit, supporting families in the emergency department, being on call at home or reporting for duty at the local health department.

Further, the preparedness of nurses during disaster situations was assessed by Qureshi, et al. (2005). Regardless of variations in demographic profile, the cited researchers averred that all nurses must be prepared to report to work during a disaster. On the other hand, Greenberg (2006) stressed that career committed nurses are often able to flourish in stressful situations and demanding work since they feel valued and appreciated.

It is therefore important to determine the degree of career commitment a nurse has because it directly affects his/her performance of nursing functions. Moreover, it is often assumed that an individual's competence improves as that person becomes more experienced.

Furthermore, a positive correlation was found out between work experience and the nurse's perception of his/her competence.

Table 2 on the following page shows the aggregate assessment of the respondents on the roles of nurses during disaster, with a composite mean of 4.33 indicating ***"agree"*** responses, likewise observed on all the cited indicators.

In rank one, the highest weighted mean of 4.59 was posted on the indicator pertaining to that of providing quality health care for people regardless of their age, gender and type of disease or reason for seeking medical attention.

This shows that nursing, as a holistic profession, accommodates patients unconditionally, fairly and democratically without regard for variations in demographic profile. As a healthcare profession, nursing focuses primarily on the care of individuals, families, and communities so they may attain, maintain, or recover optimal health and quality of life from birth to death; hence, versatility should be one of the traits a nurse should possess since meeting different kinds of sick people is inherently inevitable in the nurse's performance of functions.

As cited by Bautista (2008), the underlying value of the nursing profession remains to this day the humanistic philosophy and approach to care. This refers to the belief that nursing is a direct personalized service that should be delivered to the people with kindness, caring attitude, and a commitment to the values of ***respect for all human beings***. This, in fact, is the universal role of nurses.

In support to the foregoing, the American Holistic Nurses' Association (2007) alleged that nursing care is unrestricted by considerations of nationality, race, creed, color, age, sex, sexual preference, politics, or social status. Given that nurses practice in culturally diverse settings, professional nurses must have an understanding of the cultural background of clients in order to provide culturally appropriate interventions. Nurses render services to clients who can be individuals, families, groups, or communities.

In rank two, a weighted mean of 4.52 was addressed to that of taking action to diverse tasks with professionalism, efficiency and above all-caring. This finding indicates a role associated with a sense of professionalism in terms of caring and efficiency. Professional practice involves structures and processes needed to achieve outcomes, while ensuring professional practice standards involves being accountable to the workplace for the actions and the implementation of a high ethical standard. Through translating knowledge into action, professional practice standards are met.

An addendum table (Table 6) presents the computed correlations between each of the major variables of the study.

Table 6

Results of Test of Significant Relationship between the Research Variables
N = 149

Paired Variables	Computed r	Tabular r	Interpretation
Role vs.Preparedness	0.547	0.230	Highly significant
Role vs. Management	0.466	0.230	Highly significant
Preparedness vs. Management	0.898	0.230	Highly significant

The above table shows highly significant relationship between such paired variables as role and preparedness, role and management, and preparedness and management, with respective computed r values of 0.547. 0.466 and 0.898.

All computed r values exceeded the tabular r value of 0.230 at 0.01 level of significance based on 147 degrees of freedom. Hence, the null hypothesis associated with the test of significant relationship between the major variables of the study was rejected. In view hereof, looking back at the computed weighted mean values rationalizes these findings since all items were given ***"agree"*** rating by the respondents.

Conclusions

From the data gathered, analyzed and interpreted, the researchers concluded that:

1. The variations in the demographic profile of the respondents have an impact on their assessment of their roles, preparedness and management during disaster situations. Nurses grouped by demographic profile variables have both similarities and differences in their responses to disaster situations. Based on age, gender, civil status and length of nursing experience have an impact on the nurses' performance of functions, specifically during catastrophic situations. Young nurses are of course more aggressive than older ones; however, the actions of the more experienced ones are more accurate and faster than the novice nurses. Young nurses are aggressive, but the older ones are decisive.

2. Regardless of the variations in their demographic profile variables, the nurses manifest significant awareness of their professional nursing roles during disaster. Awareness of their specific roles can change or expand horizons and functions according to the capability and specialization of each group of nurses. Nurses can help
to identify actions that will help reduce the effects of the disaster through a variety of roles and based on each one's specialization.

3. Nurses also reveal high level of preparedness in performing their professional functions during disaster as a result of education, training and work experiences. Regardless of variations in demographic profile, the cited researchers averred that all nurses must be prepared to report to work during a disaster. The more complicated functions were revealed to have been delivered to a very satisfactory level by nurses who have stayed longer in the profession, while the neophytes or novices perform the same functions to a moderately satisfactory level.

4. The management competencies of the nurses during disaster are also very satisfactory as an impact of education, training and work experiences, as well as an outcome of their high level of awareness to their roles and their preparedness to challenging situations. Nurses must possess management competencies which they may use in their performance of nursing functions during disaster situations. Management competencies enhance efficient coordination and collaboration among public safety organizations by enabling the interoperable sharing of emergency alerts and incident-related data between disparate systems.

5. Since disasters, particularly natural disasters, are the events that either human or technology cannot predict the exact time of occurrences, public healthcare systems need to assure that all healthcare staffs including nurses are ready for disaster occurrences. Regardless of variations demographic profiles, nurses should know the scope of their responsibility and can define the significant role in preparing for, responding to, managing and recovering from disasters impacts.

6. The increasing of disaster event around the world had warned every country to be ready to face with unexpected events, including natural disaster. Nurses' role during management requires versatility, thus appropriate disaster management in preparedness, response and recovery phase is essential to be established. Even though many disciplines are required to support the disaster management, nurses are considered as one of the healthcare professionals that must be well-prepared to face and deal with the natural disaster. Thus, awareness is highly needed from nurses, particularly nurses who work in high-risk area with disaster.

From the drawn conclusions, the following recommendations are hereby forwarded:

1. Nurses, regardless of variations in demographic profile, should always manifest a high sense of awareness to their roles during disaster, be prepared in critical situations and apply their management skills in facing different clients and situations.

2. All medical allied personnel should be readily available in times of disasters and emergencies so that they could be of greater help to the clients, the community and the nation as a whole. They should also manifest a high sense of professionalism in dealing with everyone since this is their main role.

3. This study must be taken seriously by Department of Health, since emergency preparedness is a program of long term development activities which goals are to strengthen the overall capacity and capability of a country to manage efficiently all types of emergency.

4. This study should be utilized to create an awareness to all the nursing students and nursing educators by enhancing their profession's capability and competency through training and educational session.

5. Future researchers may conduct a study similar or related to this present study to determine whether similar or related trends or situations about nurses occur in other localities.

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