Original Article

Thematic Analysis of Management Behaviors of Civilian Nurses in Iran-Iraq War 1980–1988: A Historical Research

Abstract

Background: One of the most important roles of nurses in the war was the application of management interventions, which led to provide better services for the wounded soldiers. The purpose of this study was to explore the Management behaviors of civilian nurses in the Iran-Iraq war. **Materials and Methods:** The historical research methodology and thematic analysis using in-depth interviews were applied to gather data. This study was conducted in 2010-2012 in five big cities of Iran, and involved 18 male nurses who were selected by purposeful sampling method. **Results:** The interviews of the nurses revealed a main category as the management behaviors of the nurses in the war. Six subcategories were obtained, namely call up for the war, establishing emergency teams, managing the therapeutic units, managerial innovation during war operations, teamwork and variety of roles of nurses in the war. **Conclusions:** This study demonstrated how the nurses adapted to the harsh a situation without any previous experience on management in crises such as wars and increased medical treatment facilities outcome using management principles.

Keywords: Iran-Iraq war, management principles, nurses, qualitative research, thematic analysis

Introduction

The Iran-Iraq war (September 1980 to August 1988) was recorded as one of the global historic events of the 4th quarter in the 20th century. During the war, many border cities were occupied by Iraq. This war caused large human and financial losses for both the countries.^[1] Due to lack of human resources and facilities, the nursing management was very impressive in providing services.^[2]

One of the most outstanding capabilities of the nurses is to manage crisis and unexpected events. During the eight years of the Iran-Iraq war, nurses managed different challenges like high count of injuries, admitting the critically injured on time, and transferring the injured to more specialized centers.^[3] They became capable of managing crises with high potential.^[4]

Battlefields are a different type of crisis. [5] Nurses in battlefields face vast military operations and a large number of victims. The efficiency and success in crises depend on the awareness of management principles and their edification in the battlefields. Planning, organizing, directing,

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coordinating, and controlling are the main principles of crisis management, and nurses must adapt the management principles based on the crisis.^[6,7] The real efficiency and excellence of nursing management are revealed, in particular, when the numbers of healthcare staff are insufficient during the crises.^[8,9]

Exploring the experiences of nurses who have participated in different missions during a war is essential and valuable for nursing profession today. [10] Focusing on nursing management contributes to wartime with respect to military or nonmilitary individuals. Florence Nightingale, for example, is one of the pioneers of nursing that revolutionized the nursing profession with caring the victims during the Crimean war. [11-14]

Information gained from qualitative studies shapes clinical knowledge for nursing practice. This study is mostly concerned with the nursing management in military operations of the Iran-Iraq war. This study aims to describe the management behaviors of civilian nurses who participated in the Iran-Iraq war.

How to cite this article: Firouzkouhi M, Zargham-Boroujeni A, Abdollahimohammad A. Thematic analysis of management behaviors of civilian nurses in Iran-Iraq War 1980–1988: A historical research. Iranian J Nursing Midwifery Res 2018:23:267-71.

Received: July, 2017. Accepted: November, 2017.

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Materials and Methods

Historical research is defined as a process of inquiry into past events to make, somehow, accurate interpretation of those events. Historical research, because of its complex nature, uses no single research method. Barzun and Graff (1992) described history as a mode of thinking that incorporates the past events. Any historical research methods seems to be multidisciplinary because it encompasses variable parameters such as origins, growth, and theories. Providing information, observing, and analyzing historical changes over time is an inevitable tool of understanding history. Historical research, however, implies that an analytical framework or approach be present in any analysis method.

This research applies the thematic analysis as a basis for data analysis. Thematic analysis, which is widely used in historical research, was applied in this study to identify, analyze, and report themes. This study utilizes a qualitative, historical research approach as a set of procedures for thematic analysis. This thematic analysis is focused on identifying themes and patterns.[18,19] In historical research, the information is obtained through in-depth interviews and is then converted into themes.^[20] The study period was between 2010 and 2012. Eighteen nonmilitary male nurses who voluntarily participated in the war and offered healthcare services to the victims at the frontlines participated in the study. The participants were selected through purposive sampling from Isfahan, Tehran, Tabriz, Mashhad, and Kerman, Iran. The participants were interviewed for an average of 45 minutes. The interviews were conducted at home or workplace according to the interviewees' choices. Each interview was transcribed and analyzed simultaneously. The analysis was based on the six-stage method of Braun and Clarke in thematic analysis.[21] First, the interviews were listened twice and then were transcribed by two researchers. Second, initial codes were extracted. Third, subcategories were formed. Fourth, similar subcategories were grouped under a category or theme. In the fifth stage, the themes were labeled. The final stage linked the themes to the existing articles.

The rigor of data was increased through credibility, dependability, conformability, and transferability. [22] For credibility, the researcher compared the codes of a few interviews that were extracted by the other co-researchers with the codes of his own analysis to attain a consensus in the coding process. For dependability, all transcriptions were retained for review and served as an audit trail. The researchers were receptive to the participant's ideas to reduce bias in the results. During the data collection process, researchers noted the participants' tone of voice and enquiry conditions to ensure a comprehensive understanding of respondents' views and meanings along with ensuring conformability. To increase transferability,

applicability of the findings in similar situations, the research obtained the results through selecting participants from different cities of Iran.

Ethical consideration

Researchers at all stages of the research paid careful attention to ethical principles. All the participants were given verbal and written information about the purpose and importance of the study. Informed consent was obtained from the participants before the interview and they had right to reject participating in the study at any time.

Results

A main category named "nurses' management behaviors" was obtained from six subcategories, including call up for the war, establishing emergency teams, managing the therapeutic units, managerial innovation during the military operations, teamwork, and variety of nurse's roles in the war.

Call up for the war

Nurses were the biggest nonmilitary expert group who were deployed to the war for caring for the victims in emergency units, relief or rescue posts, and field hospitals. The nursing managers were responsible to train the nurses before deploying. Deployment of nurses to the designated destinations took place rapidly by road, rail, or air. A participant stated: "...We were initially informed by the military authorities for deploying to the war zone. We were organized about 5-6 hours in our cities before deploying. (Participant 18)"

Participant 3 recalled: "...We were deployed to the planned areas within 24 hours. We were transferred with no waste of time by means of air or ground. We arrived at rescue units exactly on the night of the military operations."

Establishing emergency teams

Establishing emergency teams including nurses, anesthetists, and surgeons were one of the most successful attempts of the healthcare management during the war. The mutual understanding of the members had enabled them to work for 72 hours continuously.

A member of the emergency team announced: "...The emergency teams were formed and organized beforehand. There were surgeons, assistant surgeons, nurses and assistant nurses in the teams. The teams summoning was quick. (Nurse 13)"

"...They were dispatched at least 24 hours or a night before the military operations. Transportation was very fast by any available transport that is at the first night of the operations, our team was in the field hospitals. (Nurse 4)"

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Managing the therapeutic units

The nursing managers controlled the therapeutic units in the frontlines. They managed the units in accordance with the march of the armed forces. They helped victims under direct fire of enemy in military operations.

Participant 17 recalled: "The managing role was essential, that is, establishing and facilitating field hospitals and units, emergency and rescue posts, and supervising the whole operation regardless the wounded was of enemy forces, Iranian ones, or a non-military person.

In this respect, participant 16 recalled: "...We used any available material to build a shelter for an emergency center. The military engineering unit constructed the emergency units. Then, we gradually equipped it with the necessary devices."

Managerial innovation during war operations

Another aspect of nursing management during the war was using any materials to overcome the shortage to help soldiers. They applied, for example, any vehicle as an ambulance, big ammunition boxes as beds, and pieces of wood as orthopedics splint, and so on.

The simple first aid was described by a nurse as follows: "...We used the wood of boxes to fix broken bones; we used the old booth leathers to fix the wounded in the neck area. We innovated something from these things in the surroundings that were considered as waste or useless. We manipulated the interior of a military vehicle to serve as an ambulance. (Nurse 12)"

In this respect, participant 16 recalled: "We used any available material in the vicinity to build a shelter/space to resemble a presumably emergency center, and it worked for the time."

Teamwork

One of the most important tasks was the establishment of emergency teams. Nursing teamwork went on throughout the war. The nurses underwent teamwork to serve the critically wounded. In case of high load of the wounded, lack of personnel was not felt and the tasks were done as fast as possible.

One of the participants described teamwork for critically wounded soldiers as follows: "...When a critically wounded soldier was admitted, he was examined by a physician and a nurse who were in a field emergency center. At the same time, radiology, fixing fractured limbs and bandage were done. In emergency cases, the teamwork was done for doing cardiopulmonary resuscitation (CPR) and multiple traumas. (Nurse 3)

Teamwork compensated the shortages of personnel and provided better services to the injured. (Nurse 10)"

Variety of nurse's roles in the war

Nurses' outstanding capabilities were exhibited at the beginning of war as rescue or relief workers. If there was not a wounded to care, the nurses did health training to the soldiers about personnel and public health. In case when there was no physician, they took the risk of treating the sick and injured.

One of the participants narrated: "... Especially from 1984 on, that more graduated nurses were deployed, the two roles were prominent; relief and treatment. Another one was providing first care and organizing the services in emergency centers, hospitals, relief posts, and even education. This education included the rescuers and warriors on the battlefield. (Nurse 2)

The nurses performed almost all the work in the war. Fighting, controlling and supervising soldiers' nutrition, health services, rescuer, public health of the soldiers, and the health of the camp prisoners and so on (Nurse 6)"

Discussion

The nurses who emerged during the eight-year war made an evolution in the nursing concept. They are considered as the pioneers who changed the prevailing perspective of nursing in Iran by introducing new values and beliefs in this realm. The chronology of nursing during war is an evidence of enthusiasm, courage, and selflessness that nurture today's nurses to seek the best in their overall performance.

One of the results of the study is call up for war. In this theme, the aspects of observing military regulations, the personal safety on duty, the work-shift change, the displacement of the front-line units, and not allowing the emergency to become aware of the nurses' arrival, which is indicative of some operations to begin and were of major concern. Chapman *et al.* in their study regarding training, preparation, and encountering new experiences of medical personnel of the American army in Iraq has introduced the war environment as horrible and full of unexpected events. Encountering the enemy, applying military techniques during treatment, securing the lives of themselves and the wounded, observing the camouflage regulations, operating in darkness, and transferring the wounded under fire and smoke do influence the nurses' performance.^[23]

Finnegan *et al.* reported that the soldiers' and nurses' roles are similar because both have to provide physiopsychological support, observe disciplines, perform in critical environs, and follow the designated regulations. A nurse in military system must obey all regulations for the security of others.^[11]

Another result is establishing emergency teams. As for the emergency team, the manager's presence directly influences the operations in whole, independence in performance, on time response and presence, cooperation with team members and nonstop 72-hour work.

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Nayback-Beebe *et al.* rank teamwork very high because appropriate related skills, real and honest cooperation, effective and practical decision-making, proper guidance, and above all sincerity among the team members lead to success. [24] Veestraeten *et al.* reported that the presence of nurses in military operations is valuable and the teamwork must be emphasized to enhance their activities. The nurses' role is difficult in terms of saving the lives of the wounded during military operations, which make a stressful mission. [25]

Managing therapeutic units is another outcome of this study where the nursing management justifies its purpose, whether on front line or in safer conditions. According to Malone, a head nurse or nursing manager is faced more often with decision-making challenges than mere nurses during the war. Nurses may manage a verity of tasks during a battle, such as providing a safe workplace, safe transferring of the wounded, on-time dispatching, controlling shift schedule, handling high volume of wounded, and other marginal issues.^[26]

Kashani *et al.* revealed that the duties and responsibilities of a nursing manager are quite difficult in the war zone because of high stress, strain, and constant inefficiency in personnel count, which leads to fatigue and eventually increases errors. They must be able to remain calm and stabilize the situation to provide better services to the wounded.^[27]

Managerial innovation is another major aspect of nurses' role during war operations, which helped compensate the shortages mentioned so far. According to Veenema *et al.* innovative and critical thinking are vital to manage natural disasters, crises, and wars. The space should be open and permissions given for any innovative idea based on knowledge and awareness, if the task is to be accomplished with least loss and delay in any item of specific conduct in the realm of nursing, the innovative aspect by the nurse and nursing management should not be overlooked or disregarded. McAllister appraises the contributions made by nurses during military activities and considers the nurses' innovative aspect as the only manner in confronting deficiencies and overcoming the difficulties. [29]

Teamwork is another major aspect in nursing management, which is proven to have multidimensional effect on the performances in general. Veestraeten *et al.* has valued teamwork important and essential in saving life. The duties of nursing teams under stress, strain, and exposure to military threats become more complicated. The nurses must prevent mistakes in their practice in battlefields carefully. Elliott refers to the high flexibilities, capabilities, and endurance of nurses in the war zone, which are major factors in accomplishing the tasks in a successful manner. Successful functionality and on time and appropriate decision-making all depend on teamwork.

Nurses' performance depends on the circumstances where a vast spectrum of duties, already mentioned, is implemented. The findings of Ebadi and Sharif support the findings of the current study of multidimensional nature of nursing managements, which are included having sufficient and appropriate clinical skills, mental and physical readiness, technical skills, military training, being able to manage traumatic patients, and rationality in coping with and operating in different conditions, the main feature of a nurse, who is, always ready.^[31]

Nayback-Beebe *et al.* signified a healthy nurse as someone who provides a healthy medical environment in the war zone. Nurses must be knowledgeable and expert in leadership skills such as communication, collaboration, and effective decision-making.^[24] The finding of the current study shows that nurses can play a variety of roles based on their profession in a critical situation such as a war.

One of the limitations of this study is the lack of access to military records in this respect. This study is based on a nonmilitary wording and documentations. During the eight-year war, no uniformity could have been established in nurses' role; thus, variations in performance and the variable components are expected. This phenomenon could not be different due to constant bombardment and chemical weaponry deployment in a vast range as part of the operations. It is hard to imagine if this real life eight-year training course could be repeated.

Conclusion

The nurses as nonmilitary, life-saving soldiers, though very small in number in comparison with the battling soldiers, helped shoulder to shoulder with their rifle-pals. This could not have been accomplished if the nurses did not apply management skills to care victims. The nurses became skilled and critical thinker, which paved the way for their advances in the higher education up to doctorate level in Iran. This study opens a new window to examine nurses' managerial roles in the catastrophic events of the Iran-Iraq war.

Acknowledgment

This article was derived from a PhD thesis of Mohammadreza Firouzkouhi with project number 389295, Isfahan University of Medical Sciences, Isfahan, Iran. We appreciate the participants for sharing their experience because without their cooperation it wasn't possible to accomplish this study.

Financial support and sponsorship

Isfahan University of Medical Sciences.

Conflicts of interest

Nothing to declare.

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