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Heliyon

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Research article

Qualitative study of challenges facing emergency departments nurses in Jordan

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A B S T R A C T

Worldwide, nurses employed in the Emergency Department (ED) face many challenges that negatively influence their well-being and ability to provide high-quality patient care. Previous researchers have investigated these challenges regarding their causes, consequences, and how to deal with them. However, most of the previous research addressed these challenges using quantitative research. The current study is the first qualitative study that examined these challenges in the Jordanian context. A descriptive naturalistic qualitative design was used to explore the most critical challenges facing nurses employed in the ED and described the suggested solutions for these challenges from nurses' perspectives. Ten registered nurses employed in the most prominent ED in Jordan were selected through purposive sampling. Semi-structured interviews were used to collect data. Thematic analysis technique was used to analyze data. Six main themes emerged: the definition of challenge, challenges facing registered nurses in the emergency department (five sub-themes), preventive measurements, possible solutions (five sub-themes), effects of the challenges (two sub-themes), and future challenges. The outcomes of this study could be integrated into the educational curricula to prepare new nurses to deal with these challenges in the future after graduation and contribute to finding solutions and solving some significant problems facing registered nurses in the ED. The hospital administrators and the policymakers should develop effective interventions to overcome the challenges facing nurses in the ED to ensure a better work environment and high-quality patient care.

1. Introduction

The emergency department (ED) provides emergency care for patients with injuries or sudden illnesses requiring high-quality medical care without delay [1]. Nurses employed in this department care for patients suffering from life-threatening conditions [2], and various challenges influence their ability to provide high-quality care [3–5]. Atakro and his colleague identified general challenges facing nurses employed in the ED using a qualitative phenomenological study and categorized them into five groups, including the lack of preparation of ED nurses (i.e., absence of adequate training), verbal abuse, lack of resources, the stressful nature

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of ED, and the overcrowding in the ED [4].

Chen and his colleague emphasized the negative consequences of overcrowding in the ED on the quality of care and the safety of patients [6]. They suggested that overcrowding in the ED can result from allowing patients with non-urgent conditions to be treated at any time [6]. Additionally, sociocultural beliefs play a significant role in ED overcrowding. Overcrowding in the ED is a worldwide concern that affects access to health care and the quality of services provided to patients [7]. It increases the mortality rate, decreases patients' safety, and contributes to admitting patients to incorrect wards [8]. Additionally, Chen and his colleague conducted a study to explore nurses' perspectives on working in an overcrowded ED and found that overcrowding reduces nurses' satisfaction with their care performance [6].

Occupational burnout and stress are considered important challenges facing nurses working in the ED. A previous study about emergency nurses burnout during the outbreak of the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) found relatively high levels of burnout and stress among ED nurses [9–13]. In addition, Virani and his colleague conducted a study on 384 participants, 273 of them stated they were 1–2 times injured at work, 111 spent most of their time in the direct care of patients, and 294 shared that unsafe working environment and condition interfere with their ability to provide a high level of care [11]. Kilic and his colleague reported four occupational factors faced by emergency nurses, including physical, biological, psychological, and chemical factors. Also, common physical factors were noise, whereas common psychological factors were violence, chemical factors were disinfectants, and viral infections were common biological factors. Finally, the researchers recommended modifying the work environment and introducing training programs to build a safe working environment [12].

Substantial evidence has suggested that nurses have a high risk of experiencing workplace violence [14,15]. Gillespie and his colleague reported that the vast majority of the ED nurses (91.9%) were exposed to verbal abuse, while Copeland and Henry (2017) found that 88% of ED nurses were exposed to violence in the last six months in 2016 [16].

The absence of contextual data about this topic makes it difficult to address the problems facing Registered Nurses (RNs). An in-depth exploration of these challenges helps suggest relevant solutions. Therefore, the current study aimed to explore the significant challenges facing the RN in the ED and the suggested solutions from the nurses' perspective. The current study is the first qualitative study investigating the challenges facing ED RN in Jordan comprehensively and profoundly.

2. Methodology

2.1. Design

A descriptive naturalistic design was used in this study. It is a type of qualitative research that emphasizes collecting, evaluating, and describing narrative data. Naturalistic researchers need to recognize and increase entry to the site they want to study, decide the role they will take, what and how they will observe, whom they will interview and ask, and how to record and present the information.

2.2. Setting

This study was conducted in the largest referral governmental hospital in Jordan, as patients come to this hospital from all over the country from outside Jordan.

2.3. Ethical considerations

The approval to conduct the study was obtained from the Institutional Review Board of the Ministry of Health (ethical approval number: REC 1900015). Nurses who agreed to participate in the current study received an information sheet about the study procedure and their moral rights, including the confidentiality of participants' information. This sheet also included complete information about the study purpose, benefits and risks, and the data collection process. All participants provided voluntary informed consent to take part in this study.

2.4. Population and sample

Registered nurses employed at the ED in the selected hospital were eligible to participate and were recruited using a purposive sampling technique. Participants were recruited and interviewed until data saturation was reached. The total sample size was 10 participants. Our inclusion criterion was an experience of more than six months in ED.

2.5. Data collection and management

Semi-structured interviews were conducted to collect data. Open-ended questions were used to explore the participants' perspectives regarding their challenges during their ED work. Participants were asked about the types of these challenges, their negative consequences, and the suggested solutions.

2.6. Data analysis

A thematic analysis technique with six steps was used to analyze the data in this study by four researchers [17]. In step 1, the

researchers familiarized themselves with the data by collecting the data personally and reading and re-read the collected data. In step 2, the researchers generated the initial codes using a manual analysis technique and collected data relevant to each code. In step 3, themes were identified by sorting each code into a potential theme. In step 4, themes were reviewed to eliminate duplication and to permit the development of more sophisticated analytical categories. In step 5, the researchers defined and named the themes by re-reading of codes and related texts to reduce any possibilities of error. In step 6, the report of the final analysis was written.

2.7. Rigor/trustworthiness

To ensure confirmability, the researchers identified the steps that led to the study findings. Credibility and dependability were ensured by conducting all the interviews consistently with the same researchers who had adequate qualifications to conduct the study. In addition, the principal researcher discussed data coding with the research team. Transferability and applicability of the study outcomes to other contexts were assured by producing the study themes from participants' statements. This ensures that they are relevant to the study topic and congruent with the participants' viewpoints.

3. Results

3.1. Sample characteristics

The sample characteristics of the nurses are shown in Table 1. The average age of study participants was 34 years (range 23–49 years). The majority of the participants were married (60%), had a Bachelor of Science in Nursing (BSc) degree (80%), and had 1–5 years of experience (50%). Half of the participants were female (50%).

3.2. Themes and sub-themes

Analysis of the interviews yielded six main themes: the definition of challenge, challenges facing registered nurses in the emergency department (five sub-themes), preventive measurements, possible solutions (five sub-themes), effects of the challenges (two sub-themes), and future challenges (see Table 2).

3.3. Theme 1: definition of challenge

The participants defined the "challenge" as the problem that negatively influences the ability to perform tasks and the quality of care provided for patients and thus needs urgent solutions. One participant stated:

> "*Challenges were obstacles that affect my work such as inadequate resources and difficulty in performing tasks, or something I cannot deal with it …*" (Participant 1)

3.4. Theme 2: challenges facing RNs in the ED

3.4.1. Sub-theme1: challenges related to nurses
Most participants spoke about the weak competencies and qualifications of newly graduated nurses, which was confirmed by 60% of the participants. They noted that the newly graduated nurses recruited in hospitals could be better regarding their clinical competence.

Challenges related to the clinical competence of nurses are more evident when a high proportion of newly graduated nurses are

Table 1
Participants' characteristics.

Variable	Category	Frequency	Percent
Gender	Female	5	50.0
	Male	5	50.0
Age	23–25 years old	3	30.0
	26–49 years old	7	70.0
Marital status	Single	4	40.0
	Married	6	60.0
Education level	Bachelor	8	80.0
	Master's degree	2	20.0
Monthly income	Less than 500JD	9	90.0
	500-1000JD	1	10.0
Work type	full time work	10	100.0
Experience in years	6 months > 1 year	3	30.0
	1 year > 5 years	5	50.0
	5 years > 10 years	1	10.0
	≤10 years	1	10.0

Table 2
The themes and sub-themes of Challenges Facing Registered Nurses in ED from the participants' perspective.

Themes	Sub themes
1. Definition of challenges	———————
2. Challenges faced by RN in the ED	1. Challenges related to nurses.
	2. Challenges related to patients and their families.
	3. Challenges related to infrastructure and ED design.
	4. Challenges related to the ED system.
	5. Challenges related to medical resources, supplies and availability.
3. Prevention measurements	———————
4. Possible solutions	1. Solutions related to nurses.
	2. Solutions related to patients and their families.
	3. Solutions related to infrastructure and ED design.
	4. Solutions related to ED system.
	5. Solutions related to medical resources, supplies and availability.
5. Effects of challenges	1. Effects of challenges on personal level.
	2. Effects of challenges on work.
6. Challenges in the future	—————

working on the same shift. One participant stated:

> "*Some new nurses are improperly distributed between shifts*" (Participant 7).

The vast majority (90%) of the participants reported *workplace violence in ED as another* challenge in ED. One participant stated: "*We are exposed to violence daily … *". (Participant 10). Moreover, all participants (100%) presented the nursing shortage problem and discussed its causes and negative consequences. In addition, some participants proposed some solutions to address this problem. One participant stated:

> "*We have a shortage of nurses and a heavy workload*" (Participant 1)

Stress was also described as a significant challenge. It was found that 70% of the participants considered stress a challenge. They considered stress as a daily experience in the ED. One participant stated: "*We are exposed to high-stress levels during work compared to other units.*" (Participant 1).

Nursing turnover is another common problem mentioned by all participants (100%), directly related to job satisfaction. The turnover ratio can be reduced by increasing job satisfaction. Nurses usually look for jobs with higher salaries and better working conditions. One participant stated:

> "*The salary is terrible, inconsistent with our challenging work and the tremendous effort we make in the ED …*" . (Participant 2)

3.4.2. Sub-theme 2: challenges related to patients and their families

Many patients who come to government hospitals are usually from low socio-economic status. Most of them were uneducated or had only primary education. The cultural misconceptions about illness and wellness need to be changed. The high number of companions with the patient can increase the overcrowding within the ED and negatively impact nurses' work. One participant stated:

> " *We face a terrible society culture that needs radical change* ". (Participant 1)

3.4.3. Sub-theme 3: challenges related to infrastructure and ED design

The emergency rooms are small, making them inadequate to serve many patients. The presence of several entrances and exits open 24 h. One participant stated: "*Challenges have several levels, such as the level of space or environment including the space of the rooms, distribution of rooms, and the design of the ED … *". (Participant 1).

The primary safety preparations are lacking (i.e., no isolation rooms with positive or negative pressure). This challenge increases the possibility of having infections when dealing directly with patients without taking precautionary measures.

One participant stated: "*We do not have in the design of the ED building isolation rooms equipped with positive or negative pressure to deal with cases that need isolation; this poses a danger to the staff and the other patients*' ". (Participant 7).

The capacity of beds in the ED was described as "inadequate" for the large number of patients who visit the ED. This could increase overcrowding, reduce the quality of care provided, and increase the risk of exposure to violence, particularly at peak hours. One participant stated: "The number of beds in ED does not match the number of patients, and this causes overcrowding and work pressure." (Participant 8).

3.4.4. Sub-theme 4: challenges related to the ED system

The department approves a written quality and training triage policy; this policy is not applied. One participant stated:

"*There is no transparent system in the ED regarding the triage room which should organize patients and make the treatment process more structured and easy … "* (Participant 3)

According to the study participants, a handover policy should be available, written, and approved, but this policy does not exist. One participant stated:

"*We have administrative slack making equipment checking after each shift more important than patients, the handover process is unorganized and random, and it is performed verbally, not written."* (Participant 1)

The policy of documentation is another policy of interest. There must be an obligation to document all patient procedures on paper. Although there is a Hakeem system that enforces nurses to do the documentation, it fits outside the emergency department. One participant stated: "*There is no commitment to the documentation policy in the ED. Despite the existence of the Hakeem system, the documentation is applied for critical cases only*". (Participant 7).

Waiting time in the ED and the absence of a policy determine the length of waiting time allowed. One participant stated: "*Application of a law that determines the waiting time in the ED is a problem because there is no patient accepts this idea … "* (Participant 8).

3.4.5. Sub-theme 5: challenges related to medical resources

The supplies need to be adequate to cover the needs of many patients who come to the ED. Inadequate supplies cause problems in performing many medical procedures and may lead to fatal medical errors. One participant stated: "*Medical devices are frequently broken, and there is no supervision or follow-up and evaluation of the device's efficiency, which leads to problems during the shift, especially if the device is broken and there is no alternative device "*. (Participant 6).

3.5. Theme 3: preventive measurements followed by administrators

The participants stressed that the administration's role in dealing with the obstacles facing them must be more vital and adequate. They said that the administration is fully aware of all these challenges but needs to solve them. One participant stated:

"*Bad measures and solutions need to be commensurate with our challenges. There are no strict laws to deal with some problems, especially the problem of violence against nursing staff*" (Participant 5)

3.6. Theme 4: possible solutions from the viewpoint of the participants

3.6.1. Sub-theme 1: solutions related to nurses

Increasing the number of nurses on each shift and increasing nurses' appointments by the Ministry of Health. One participant stated: "*Lack of staff is a big problem, so we need appointments by the Ministry of Health to cover the existing shortage … "*. (Participant 1).

Activate the Department of Continuing Education to hold specialized training courses for emergency nurses. Courses should be provided periodically and include all nurses in the emergency department. One participant stated:

"*There is a need to provide training courses on teamwork and communication skills for staff to improve their performance effectively "*. (Participant 6)

Increase their salaries and incentives to be consistent with their efforts and the work pressure in the emergency department. One participant stated:

"*Salaries in the government sector are poor and need improvement, but improving salaries in the health sector is very difficult because the salary scale is fixed and subject to a government law that is difficult to be changed … "*. (Participant 4)

3.6.2. Sub-theme 2: solutions related to patients and their families

There is a need to apply a law allowing the presence of only one or two companions at most with each patient. Reducing overcrowding and giving every patient the right to receive health care is essential. One participant stated: "*There is a need to limit the number of companions to one or two with each patient in the ED to reduce overcrowding "*. (Participant 2).

Raising the awareness of the local community about ED and the principles of treatment is needed. One participant stated: "*There is a need to hold workshops for the local community to raise awareness of the importance of the ED. It is essential to raise awareness about triaging cases and how to deal with priorities "*. (Participant 4).

Correcting some of the false beliefs of patients and their cultural misconceptions is very important. One participant stated: "*Community awareness about the nature of the ED is essential, and there is a need to change the cultural misconceptions about the ED*". (Participant 7).

3.6.3. Sub-theme 3: solutions related to infrastructure and ED design

They indicated a need to change the building structure and create a new building with a larger capacity. In addition, they suggested changing the building design to be more secure. One participant stated: "*there is a need to change the design and the construction of the isolation rooms to be with negative pressure to reduce the risk of infection, especially infections caused by respiratory diseases "*. (Participant 9).

3.6.4. Sub-theme 4: solutions related to the ED system

Using cameras to monitor entry and exit from the ED can help monitor any violence against the medical staff. It is increasing the number of emergency security personnel and distributing them equally to deal immediately with all cases of assault on the medical staff and activating the role of the triage room. The development of strict laws to prevent the entry of any patients to the ED without passing through the triage room is essential. One participant stated: "*There is a need for many security personnel within the ED. In addition, developing a written policy regarding the patient handover process is essential. Increasing emergency beds and developing monitoring systems are also needed.* (Participant 6).

3.6.5. Sub-theme 5: solutions related to medical resources, supplies, and availability

Increasing the medical supplies and providing them continuously to keep the care provided to the patients at the highest possible levels. One participant stated:

"*It is essential to increase the number of basic medical supplies and ensure they are always available … *". (Participant 10)

3.7. Theme 5: effects of the challenges

3.7.1. Sub-theme 1: effects of the challenges on a personal level

Adverse effects include stress, exhaustion, anxiety, tiredness, nervousness, irregular sleep, and sleeplessness. Socially, participants may have difficulties attending social events because of the pressure and depression caused by their work. In addition, participants suffered from physical problems, including joint pain, pain in the lower back, increased weight because of eating unhealthy food at work, and some chronic diseases such as hypothyroidism and disk. One participant stated:

"*I can say that I am a depressed person as a result of the work pressure. Every day I wanted to be alone, became nervous, and could not control my feelings. My reactions to everything were terrible. I was socially affected. I loved going out with my friends, but after I worked here for one year, I took a vacation to sleep and rest. I am going to work 16 hours a day, so I do not come every day, and I want to increase the number of holidays and relax from communicating with people every day *". (Participant 7)

3.7.2. Sub-theme 2: effects of the challenges on work

These challenges reduce the efficiency and quality of the care provided to the patients. In addition, they cause nurses to leave the ED and work in other departments. One participant stated: "*They have impacts on the medical care provided where there is a defect in the care, a lack of all supplies we need, causing great leave in the emergency staff because of the poor environment. Sometimes we cannot assure patients' rights because there are many patients other than the workers *". (Participant 2).

3.8. Theme 6: future challenges

Ninety percent of the study participants mentioned that these challenges would increase and nothing would change. One participant stated: "*I think the challenges will remain … *". (Participant 6).

4. Discussion

In the current study, participants defined the word "challenge" as "the problems and threats that hinder the work of nurses during their shifts.". In the literature, the terms "challenge", "problem," and "difficulty" are used interchangeably. The word "problem" is defined in Webster's New World College Dictionary as an unusual condition that causes difficulties and requires solutions to help avoid repetition.

Participants showed an obvious problem related to turnover and job satisfaction. They mentioned that the number of nursing turnover and the number of nurses who leave the ED to go to other departments was high [18–21]. The overcrowding problem was related to the patient's cultural beliefs, who think they have the right to be seen by the doctor immediately. This belief does not allow patients to wait and make them ask for treatment as soon as they enter the ED. These findings agree with the outcomes of Pascasie and Mtshali [7], who found that effectively managing of waiting time in the ED can significantly reduce ED overcrowding.

The nursing handover was a significant challenge that emerged from analyzing the participants' answers. Participants stated that a clear written policy is needed to guide the handover process. The participants added that there were adverse effects of the inadequate handovers, including the loss of important information concerning patients' care, leading to delays or incorrect diagnoses. These findings are consistent with previous literature, which identified the importance of the nursing handover process and suggested that the effective handover process can save much critical information concerning patients' care [22]. One suggested measure that can be taken to support structured handovers is using in-house Standard Operating Procedures (SOP) in the governmental hospitals in Jordan. The SOP can help to define responsibilities and improve handover process. The SOP is implemented in many private hospitals in Jordan. However, such a quality system has not yet been established in Jordanian governmental hospitals.

Burnout and stress have significant impacts on nurses' well-being as well as their ability to provide high-quality care for patients. These findings have also been corroborated by Basu [23], who concluded that many stressors cause high levels of occupational burnout and stress in the ED, including low job autonomy and dissatisfaction with the job. All the challenges study participants reported negatively impact occupational safety and health. These findings are compatible with the study of Marie, Hannigan, and Jones [24],

who emphasized the importance of keeping the environment healthy and safe for both patients and workers to ensure high-quality care.

Previous studies have provided statistics about the percentages of nurses exposed to violence [25,26]. The Emergency Nurses Association in the United States reported that workplace violence in healthcare is 3.8 times higher than in other sectors. The ED's are among the most vulnerable settings to workplace violence [27]. All the study participants confirmed this. Participants blamed the hospital administration for having a weak role in dealing with the challenges faced by nurses. Participants stressed that these challenges had not been resolved for a long time and were escalating rather than being dealt with. During the interviews, many participants indicated a big problem in the administrative system. These findings are consistent with the previous studies regarding the role of the hospital administration in responding to various problems nurses face [28,29].

The participants presented different solutions to the challenges they faced. An essential suggested solution was increasing the number of nurses appointed by the Ministry of Health. This is a significant suggestion to address the shortage of nurses in the ED. Recruiting and retaining qualified RN is an essential solution to address the nursing shortage problem, which was reported in previous studies as well [20,28,29].

Problems are multiple in ED, and some solutions might be addressed. However, the hospital management and the Ministry of Health need to take the challenges seriously to reduce their negative impacts on nurses, patients, and the healthcare system. The current study identified various negative impacts of challenges on nurses' well-being. These adverse health impacts include fatigue, stress, exhaustion, anxiety, tiredness, and low back pain. These negative impacts have also been reported in the literature [24,29–33].

Most participants stressed that the challenges they face are expected to increase in the future rather than be resolved. These problems need a resolution change in the healthcare system that can take time. Research has stressed the importance of paying attention to these challenges and finding practical solutions for them [24,29,31–36].

4.1. Strength of the study

This study was the first qualitative study investigating the challenges facing Jordan RNs Conducting a qualitative study helped obtain detailed information about various problems from the perspective of the study participants. These challenges were identified by RN working in the ED, which is a critical area that has specific challenges that could differ substantially from other units. What characterized this study is that all the problems and the suggested solutions were obtained from the participants who work daily in the ED and live their actual experiences. The study was conducted in the most prominent ED in Jordan.

4.2. Limitations

The findings of this study should be interpreted, considering some significant limitations. First, few previous studies addressed the current research topic qualitatively. This limited the ability of the researchers to compare the outcomes of this study with most other studies that investigated each challenge facing nurses separately and using a quantitative research design. Second, it was not easy to convince nurses in the ED to participate in the study, mainly because it is a qualitative study that involves time-consuming interviews. Third, there is difficulty in generalizing the results of the study on other units because the current study focused on the ED.

4.3. Implications

Today, RNs employed in the ED are facing significant challenges. The current study is distinguished from the previous studies as it examined these challenges using a qualitative research design to investigate the topic more deeply from nurses' perspectives. This study looked at different challenges experienced by nurses in the ED rather than focusing on one of them. The outcomes of this study could be integrated into the educational curricula to prepare new nurses to deal with these future challenges after graduation and could contribute to finding solutions and solving some significant problems facing RN in the ED. These solutions will be presented to administrators and decision-makers in different hospitals to provide them with in-depth information that could help them to adopt new policies to address various challenges facing RN in the future. The current study would help find clear answers to the question of the challenges facing RN in the ED and the best solutions for these challenges.

5. Conclusion

Worldwide, nurses employed in the ED face many challenges that negatively influence their well-being and their ability to provide high-quality patient care. The current study identified the significant challenges facing RNs in the ED and identified possible solutions from the nurses' point of view. In addition, it highlighted many other aspects of these challenges, including their effects, causes, and possible future outcomes. The current study should be considered carefully by the hospital administration and the Ministry of Health, which are responsible for developing effective policies and laws to deal with these future challenges to ensure a better work environment and high-quality care provided for patients.

Author contribution statement

1 Conceived and designed the experiments: Suhair Al-Ghabeesh, Asmaa Thabet
2 Performed the experiments: Suhair Al-Ghabeesh, Asmaa Thabet, Ahmad Rayan

3 Analyzed and interpreted the data: Suhair Al-Ghabeesh, Asmaa Thabet, Ahmad Rayan, Hana Abu-Snieneh

4 Contributed reagents, materials, analysis tools or data; Suhair Al-Ghabeesh, Asmaa Thabet, Hana Abu-Snieneh

5 Wrote the paper: Suhair Hussni Al-Ghabeesh, Asmaa Thabet, Ahmad Rayan

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