Iraqi Nurses' Perspectives on Safety Issues in Maternity Services

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Abstract

Background: Studies introduce maternal and neonatal safety phenomena as important challenges to the public health, particularly in low-income countries. However, few researches are conducted on the identification of safety issues in maternity hospitals in Iraq. It was the first study on nurses' perspectives on safety issues in Kurdistan, Iraq.

Objectives: The current study aimed to describe nurses' perspectives on what constitutes a safe maternity service in Kurdistan, Iraq.

Patients and Methods: A qualitative design, based on a content analysis approach, was used. Ten Kurdish nurses who worked in the delivery room of Kurdistan, Iraq maternity hospital were recruited through purposive sampling. Semi-structured interviews were performed to collect data. All interviews were audiotaped and transcribed verbatim. Sampling continued to the level of data saturation. Data analysis was performed based on the steps suggested by Graneheim and Lundman.

Results: Thematic analysis led to the identification of six main categories including stressful job, lack of schedule and job description, providing care with limited resources, professional unaccountability, regional sociopolitical factors, and inadequate training.

Conclusions: Iraqi nurses identified factors such as limited health resources, lack of job description, and professional unaccountability as major safety issues in maternity services. These findings alarm the need to ensure the provision of females and neonates with appropriate care. This, however, would require coordination between Iraqi Kurdistan health authorities to provide midwifery care facilities, high-quality and relevant staff training, and an effective healthcare system in the maternity units.
Keywords: Qualitative Research; Nurses; Safety; Maternal-Child Nursing

1. Background

Every day, four million infants (younger than one month old) and half a million mothers die due to pregnancy-related causes. Since 99% of these deaths occur in low- and middle-income countries, research is warranted to identify the root causes of maternal and infant safety issues and propose solutions to such issues in lower income countries (1, 2). Pregnancy-related mortality is a serious health and social problem affecting many women and their families each year (3-6). Nurses working in maternity services believe that numerous problems can result in safety issues both for mothers and their babies in delivery rooms (7-10). In Middle East countries, access to a health professional for childbirth care is no longer a key constraint; the majority of women now deliver with doctors or midwives in maternal units (11). Maternal and neonatal care is identified as a patient safety problem in middle-income countries such as Iraq (11, 12). The Iraqi health care system is seriously impacted by different external and internal fights, international sanctions, and sociopolitical instability in recent years (13). Prenatal health services in Kurdistan, Iraq are similarly affected by problems common to maternity care services such as poor qualification of health care providers including nurses and midwives (13).

In the maternity hospital of Kurdistan, Iraq, a group of nurses are responsible for maternity care and they provide services during and

after birth. In the absence of educated midwives, few nurses with university education work in departments such as maternity wards and delivery rooms. Previous studies highlighted the increasing challenge that nurses face to prepare themselves for the real clinical world of nursing. These nurses are not willing to work in the mentioned departments and also did not receive relevant trainings (14). Since they play the main role in midwifery and nursing care provisions, especially during labor, several patient safety and care issues have emerged in this department. However, the actual quality of maternity care and safety for mothers and their neonates, i.e. a great number of mothers especially in middle-income countries, through perspectives and statements of health care provider teams, receive relatively less research attention (2). There is also little information regarding the effectiveness of midwifery and nursing care on maternal safety, particularly among females in labor, according to statements and experiences of midwifes and maternity nurses (2). Hence, the current study was conducted on this problem based on nurses' statements. As the authors were not able to find any qualitative studies on safety in maternity services in Iraq, particularly in Kurdistan, this is the first study based on a qualitative content analysis to identify these problems in maternity services according to nurses' experiences and perspectives. Therefore, the current study was carried out to describe the experiences of maternity nurses to identify the factors that contribute to a safe maternity service in Kurdistan, Iraq to direct the attention of nursing and hospital managers to come up with well-defined priorities for maternity care settings.

2. Objectives

The current study aimed to describe nurses' perspectives on what constitutes a safe maternity service, especially during intrapartum care in Kurdistan, Iraq.

3. Patients and Methods

The current study employed a qualitative approach and inductive content analysis to analyze the data. Qualitative studies are used to

enhance the understanding of human experiences (15). They are generally the best method to comprehend the complexities of psychosocial phenomena (16). Content analysis uses systematic coding and categorization to investigate large amounts of textual data and determine the patterns of communication (17).

The participants were 10 Kurdish nurses working in the delivery room of Hawler Maternity Hospital in Kurdistan region, Iraq. There is only one public maternity hospital in Hawler. This hospital has 300 beds that 56 of them are labor and delivery beds. Overall, 155 nurses work in the hospital units. There are 120 deliveries, either vaginal or cesarean section, in 24 hours. Most cases are normal vaginal deliveries (700 normal vaginal deliveries per week). This setting was selected for the study as it provided a good chance to access nurses' perspectives on the safety issues in maternity services. The sample included 10 female nurses who met the inclusion criteria of the study. The participants were Kurdish registered nurses currently working in delivery room. All of them had maternity nursing experience and were willing to participate in the study. Their practice experience ranged from 1 - 44 years. Four nurses were university educated and six were graduated from nursing school. To collect data, semi-structured interviews were conducted, tape recorded, and transcribed verbatim. A number of open-ended questions were asked to direct the interviews. The first question was "Could you please explain your daily maternal care?" More detailed follow-up questions such as "What aspects of maternity services in your daily maternal care do you consider to be less safe?" were then posed according to the participants' responses. The interviews continued with exploratory "how" and "what" questions such as "Can you explain more?" and "Can you give me an example?" The questions were posed in their maternal language (Kurdish). Each interview lasted 30 - 80 minutes. All the interviews were tape recorded, immediately transcribed, and then analyzed. Interviews were terminated as data redundancy occurred. Different categories and subcategories were identified through content analysis.

A detailed description of the study objectives and methodology, risks and benefits of participation, confidentiality of data, and the informed consent procedures were given during the initial contact with prospective participants before their participation. After receiving the subjects' permission to record the interviews and obtaining their written consent, each interview was audiotaped. Furthermore, nurses were informed that participation in the study was voluntary and they could withdraw at any time. The digitally recorded interviews and transcripts were stored on the researcher's password-protected laptop and were deleted as the study finished.

3.1. Data Analysis

According to the method described by Graneheim and Lundman, on the day of each interview, the recorded voices were transcribed in Kurdish language (**18**). The texts were then read several times and divided into condensed meaning units related to maternal safety issues which were further abstracted and labeled with primary codes such as "insufficient time to patient care", "nursing and midwifery shortage", "external and internal wars" and "insufficient midwifery knowledge". Following these stages, the comments of the research team were applied to modify the subsequent interviews to obtain codes. The codes were sorted as several subcategories (e.g. heavy workload, variety of role and expectations, and insufficient human resources) and categories (e.g. stressful job and inadequate training) based on their similarities and differences in affecting maternal safety. Finally, a thematic structure of the latent content of the text was developed. Based on the above-mentioned procedure, six main categories, each consisting of one-two subcategories, emerged.

Trustworthiness in qualitative research depends in the ability to determine if the conclusions drawn by the researcher are trustworthy and adequate. The current study provided four constructs, i.e. credibility, transferability, dependability and confirmability to establish

the rigor of qualitative research (19). These features were achieved through member checking, peer debriefing, triangulation, an audit trial providing thick descriptions to illustrate the emerging concepts and reflexivity (20). Credibility was accomplished by recruiting the participants who were able to describe their perspectives on safety issues in maternity services. Transferability was sought by providing the audience with rich in-depth descriptions. Dependability was achieved when findings were auditable; therefore, other researchers could follow without contradiction. Confirmability was accomplished by the audit trails demonstrating the thought processes that followed. The research was conducted by one assistant professor and one professor and a PhD Candidate of Nursing who had teaching and clinical experiences in maternity nursing.

4. Results

The findings of the study were based on the analysis of nurses' responses to the interview questions. Data analysis led to the identification of six main categories including stressful job, lack of schedule and job description, providing care with limited resources, professional unaccountability, regional sociopolitical factors, and inadequate training. The first category consisted of two subcategories, i.e. care provision in a crowded area and heavy workload.

4.1. Stressful Job

The participants identified nurses' stressful job at the delivery room as one of the most important factors affecting patient safety. This category consisted of two subcategories including care provision in a crowded area and heavy workload. All the statements of the subjects confirmed their exposure to high levels of occupational stress.

4.2. Care Provision in a Crowded Area

The participants identified disorganization and high number of people as a barrier to appropriate care provision for mothers. They reported the presence of patient families as a contribution to the overcrowding and disorganization of their workplace.

Participant number one, a young maternity nurse with five years of experience, said:

"Come and sit here from 7 AM to 1 PM; will you have the patience? In such a crowded place full of patients and their relatives, from morning till afternoon ..."

Another subject stated: "What can I do in such a chaos? Now patients` relatives are also here with the noises they make and the infections they bring ..."

4.3. Heavy Workload

According to the subjects, the nurses' heavy workload and time limitation prevented them from appropriate care provision and establishing a favorable nurse-patient relationship. Almost all participants mentioned this issue and highlighted it as a major factor to increase occupational stress and decrease patient safety. In addition their reports showed that they are 3 - 4 nurses and might get up to 10 deliveries and more in 6 working hours.

Subject number 2 asserted:

"When you have 3 - 4 nurses in this unit, there are too many deliveries. From the early morning until now (10:30 AM), we've had eight deliveries. Some days, there are 20 - 25 deliveries until noon!

There used to be 20 deliveries in 24 hours, but now the numbers are much larger."

Another subject asserted: "Where you might get up to 10 deliveries by noon; what's gonna happen to the patients?"

Another nurse emphasized this issue and said: "This department is different from other departments. Other departments do not have much to do. But we are snowed under. We have the right to rest, but we cannot, and this affects our patients".

4.4. Lack of Schedule and Job Description

The second category also contained two subcategories, namely a variety of roles and expectations and the need for guidelines. Some participants considered lack of schedule for the nurse as a threat to patient safety. According to the subjects, in the absence of educated and experienced midwives, the nurses had to act not only as nurses, but also as midwives. They believed that the situation was health-threatening both for mothers and infants.

4.5. A Variety of Roles and Expectations

The participants constantly complained about the wide range of their responsibilities. One of the participants remarked that nurses were obliged to perform not only their own duties, but also midwifery tasks: "I work from morning until night ..... What I can do with this much pressure? We do all nursing and midwifery duties and it's a heavy burden on us. We are both nurses and midwives. There is too much pressure on us".

Another participants mentioned: “Midwives and nurses are the same here! Everywhere around the world, midwives have studied midwifery at university, but here, there is no difference between nurses and midwives. There is no job description”.

Based on such statements, preventing unbearable workload and threats to patient safety requires the nurses to identify their duties in their workplace.

4.6. The Need for Guidelines

Nurses mentioned that they needed guidelines to do their nursing and midwifery duties. One of

the participants emphasized and asserted that: “We have no guidelines or anything written to work like the rest of the world, and what we do is unscientific. For example, you are just a beginner and you are told to perform a delivery, rupture a placenta, or insert cannula in a patient. You are working on orders only. There’s nothing, or no plan to work from; your job is not clear”.

Some participants regarded the performance of midwifery procedures by nurses a mistake, since they do not follow a guideline to do their nursing and midwifery standard care and detrimental: “Not all nurses here work scientifically. Some of them do something wrong”.

Participant number 7 mentioned: “Even the doctors do not perform well here and I cannot criticize them when the patients are there. Since the doctors are not committed and clean, a patient comes here for a condition and leaves the hospital with several other infections and diseases because there are no care guidelines for the staff”. The lack of a proper care system and a health care plan (another threat to patient safety) was obvious from similar statements.

4.7. Providing Care With Limited Resources

The participants frequently mentioned limited resources as a crucial factor affecting not only the quality of the provided care, but also patient safety. This main category consisted of two subcategories as follows:

4.7.1. Insufficient Human Resources

Insufficient human resources and unavailability of adequate and appropriate facilities constituted the third category. The participants mentioned that insufficient human resources contributed to the quality of the provided care. They indicated that despite their countless responsibilities and the urgent need for more nurses, the authorities refused to hire new personnel. According to their statements, such a shortage in human resources (midwives and nurses shortage) decreased the safety of the mothers.

Participant number 8 emphasized this issue and said: "There is too much to do. There are too many patients and we cannot take care of everything because the number of nurses is too small".

Another participant also mentioned: "Since there are too many patients, the tasks cannot be performed correctly. Under such pressure and workload and with so few nurses, you cannot adhere to the nursing principles".

4.7.2. Unavailability of Adequate and Appropriate Facilities

With the following statements, the nurses underscored the lack of basic and essential facilities as a patient safety issue. One nurse mentioned: "When you take care of ruptured membranes, you should use sterile gloves. I asked for some, because the gloves we use are clean but not sterile, but they did not agree. If you search all over Iraq, you'll find that infection control is not perfect. It is not possible to give us sterile gloves for per vaginal examination (P.V)".

The same subject added elsewhere: "Right now, we have no gowns, no special boots, and no long gloves for the patients with HIV and infections".

Another nurse stated: "We have no facilities here, no clothing, and no sterile sets for infants and mothers".

4.8. Professional and Ethical Unaccountability

Irresponsibility among the personnel was reported as a major threat to patient safety. In addition to underlining the significance of teamwork, the participants mentioned the practical negligence of nurses and medical practitioners and inadequate income as subcategories of professional unaccountability.

4.8.1. Negligence of Nurses and Medical Practitioners

Practical negligence of some nurses and physicians to do their procedures was highlighted by some participants.

A participant asserted:

"We have several devices, like a fetal Doppler, a sphygmomanometer, and a monitor in the ward and the doctor uses them to control and follow-up fetal heart rate. They use the monitor and these devices until afternoon, but do not feel responsible for them. They do not clean them. They are messy and not sterile. They walk with sterile gloves everywhere and touch everything. Nurses that do deliveries are not clean either. They don't clean the patient before delivery. They use gloves for deliveries, but do not change them. They do not use sterile clothes and sets when a child is delivered. They put the baby on the mother's tummy on her own clothes. This can lead to infections."

Participant number 7 stated: "Sometimes mothers come here with severe anemia and we have to perform blood transfusion. Why, because the gynecologists do not train mothers. They just get their money and prescribe some medicines! That's it! They do not bother to tell them what to eat or do. Women do not know anything about a Pap smear or breast exam because the doctors never discuss such things with them".

Such a lack of accountability on the doctors' part, extracted from similar statements, is life-threatening for the patients. The lack of basic precautions to protect the health of the nurses and the patients also worried the participants. Furthermore, lack of a sense of professional accountability among the personnel was reported as another threat to patient safety in the wards.

4.8.2. Inadequate Income

The absence of a regular and adequate monthly income was another factor contributing to the nurses' irresponsibility. According to a participant "When they are asked to sterile the equipment and wash them well, they say they would not bother because no one ever pays

attention to them or even thanks them. They say that their salary is not worth trying so hard".

4.9. Regional Sociopolitical Factors

The subjects considered the existing sociopolitical conditions (internal and external wars) as a cause of increased number of patients, presence of foreign patients, and emergence of special conditions such as the spread of infectious diseases. They regarded such conditions as threats to the health of other patients and even the personnel. This main category consisted of subcategories; the impact of current wars on the increased number of migrants with poor health status:

The participants justified the growing number of patients by the current regional conditions and the consequent increase in the rate of immigration.

A participant stated: "We have a lot of Syrian patients and many Arabs. All women from the nearby areas come here because it is the only women's hospital. They have nowhere else to go. Most of the patients that come here have hepatitis and do not know about it. We do not refuse them. We take them in and send them to a special isolated room for patients with hepatitis. It takes two days to receive their test results. There used to be a 20-minute test, but now we have to wait for two days to find out if the patient is positive or negative and see if she has the disease or not, but we carry out the needed care".

As these statements show, the participants were truly concerned about the risk of transmission of serious diseases such as hepatitis, from the migrants to other patients.

4.10. Inadequate Training

The subjects identified insufficient knowledge and skills among the personnel of the maternity ward as another threat to patient safety.

Participant number 4 with more than 30 years of experience mentioned: "Nurses do not do their tasks scientifically. I show them how things should be done, but they do not listen and get upset that I pick faults. They are used to working that way. Their work is painful. They hurt patients and it is wrong. I think what is done here causes complications for the patients, which is not right at all. When a mother has contractions, the baby comes out physiologically, and there is no need to pull it out or put pressure on the vagina; it is not right at all. But, it is done here!"

This lack of nursing and midwifery knowledge and skills, especially in maternal and delivery units, suggested the absence of proper training as another health-threatening factor for mothers and babies.

5. Discussion

Based on the performed interviews, many problems such as stressful job, lack of schedule and job description, providing care with limited resources, professional and ethical unaccountability, regional sociopolitical factors, and inadequate training played critical roles in decreasing maternal safety. Van Kelst et al. mentioned that when there is insufficient staff, nurses and midwives can spend less time with the mothers (21). They also added that both doctors and midwives identified the lack of training as a problem for safe provision of maternity services. Similarly, in the current study, nurses reported severe occupational stress and reported that with the heavy workload and fatigue, they did not have the opportunity to take care of the mothers properly. Additionally, the lack of a clear schedule for nurses and the absence of educated midwives threatened patient safety. According to the participants, their countless responsibilities, including both nursing and midwifery tasks, were performed without adequate

training. The nurses were extremely concerned about the absence of experienced and educated midwives and the interference of patient families in care (which created many problems in the ward). The need for evidence-based guidelines developed by professionals who work directly with women is previously emphasized (10). Furthermore, overcrowding, disorganization, lack of care plans, poor quality of nursing and midwifery care, and inadequate facilities were among the problems frequently pointed out in the interviews. Improving maternal safety means that services should have appropriate facilities and staff to foster optimal maternal and infant outcomes (22). The existing political situation also leads to overcrowding and patients and migrants in turn multiply the shortage of nursing force and basic facilities. Aiken et al. concluded that maximizing the nurse staffing and education along with provision of a practice environment minimized the risk of adverse patient outcomes, enhanced patient safety, and improved nurse retention (23). In addition, development of positive and well-equipped practice environments promoted the quality of the provided care and enhanced patient safety (24, 25). Inadequate and improper training of the personnel, especially nurses, reveals the need for proper midwifery and nursing training courses (26). Thus, the present study can contribute to resolve these problems. Providing more staff, better teamwork, improved training, more resources, and better management are potential solutions suggested by researchers (10). Davis et al., MacKenzie Bryers and van Teijlingen also reported that it is another good factor to change the culture of maternal services and increase the partnership between patient (mother) and nurse to improve maternal safety (27, 28).

The participants identified the absence of accurate job description, inadequate planning and personnel training (especially providing nurses with relevant education on midwifery tasks) as major factors affecting maternal safety. Therefore, health authorities in Kurdistan need to hire more midwives, consider more careful planning, and determine job description and provide appropriate training for nurses and midwives. Moreover, the current study findings highlighted insufficient facilities and care resources along with the influx of

migrants as other factors contributing to reduced maternal safety. Health authorities in the region are hence required to improve maternal and infant care conditions by providing adequate human and care resources.

The existing problems cannot be solved without a thorough understanding of the expectations, feelings, and ideas of nurses about the issues associated with the safety of mothers in maternity settings and other wards. Regional problems and political and economic pressures lead to poorer quality of health and hygiene issues among the people of the region. The situation is even worsened by the influx of migrants. Contrary to other parts of the world where nursing and midwifery care is performed using modern and advanced techniques, patients in Iraq are deprived of even basic and standard nursing and midwifery facilities and services.

Overall, the concerns and requirements discussed by Iraqi Kurdish nurses in the present research highlight the need for cooperation between Kurdish health authorities to resolve safety problems in maternity wards by training adequate skillful nurses and health personnel (through pre-or in-service training courses) as well as constant monitoring and appropriate management of the wards.

No particular limitations were faced during the current research conduction. However, the participating nurses were concerned that hospital authorities would be informed about their viewpoints and statements. They were thus ensured about the confidentiality and anonymity of data both before and during the interviews. The current study focused on safety issues in maternity care. Considering the significance of patient safety in the developing countries, further research is warranted to evaluate job security and psychological issues among nurses. Future qualitative and quantitative studies are also recommended to explore women’s experiences and viewpoints about maternity services.

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Footnotes

Authors' Contributions: Tiran Jamil Piro: designing the proposal, performing the interviews, and drafting and translating the results; Shahrzad Ghiyasvandian and Mahvash Salsali: involved in all stages of the research, providing appropriate references and guided the first author in conducting the interviews, extracting the codes, and drafting and revising the manuscript.
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