



A CASE PAPER

Professional Challenges and Responsibilities in Medication Management Among Nurses in Bani Walid, Libya

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Abstract

This study sought to analyse the professional obstacles and obligations connected with drug management among nursing personnel in Bani Walid, Libya. It emphasised their adherence to pharmaceutical safety protocols, as well as their understanding of their professional rights and responsibilities. A descriptive cross-sectional investigation was carried out with a specially prepared questionnaire. The questionnaire focused on three primary areas: theoretical awareness of professional rights and responsibilities, practical drug administration methods, and adherence to medication safety protocols. It was implemented between November 15, 2025, and December 20, 2025. During this time, the questionnaire was presented to 58 nurses from Bani Walid General Hospital and Northern Rural Hospital.

The results showed that 74.1% of participants affirmed their right to refuse to administer medication if its safety was not confirmed, while 89.7% adhered to verifying the patient's identity and the dosage before administration. All participants refused to administer high-risk medications such as heparin and insulin without double-checking. Despite the challenges of work pressure and resource scarcity, the nurses demonstrated a high level of commitment to medication safety procedures. The study underscores the importance of strengthening continuing education programs and supporting a positive work environment to ensure improved quality of healthcare and reduced medication errors.

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1. INTRODUCTION

The nursing profession is a critical pillar of the healthcare system, serving as the primary practical arm in providing comprehensive medical care to patients. Nursing's role extends beyond physical therapeutic features to include ethical, social, and psychological dimensions, reflecting its humanistic ethos and goal of increasing patient safety and quality of life [1]. Medication administration is one of the most crucial responsibilities assigned to nurses, as it has a direct impact on the patient's life and health. Any miscalculation in medicine type, dosage, or timing can cause major consequences, sometimes endangering the patient's life [2].

This highlights the need for a clear framework that defines nurses' rights in medication administration to ensure that the therapeutic process proceeds in an organized and safe environment. These rights include legal, professional, and ethical aspects. Among the most prominent are the nurse's right to receive accurate knowledge about medications and their effects, adequate training, and the right to a work environment free from pressures and constraints that might increase the likelihood of committing errors. Nurses are also granted the right to consciously refuse medication administration if there is ambiguity in the medical prescription or doubts related to the safety of the procedure, along with legal protection that ensures they can practice their profession without fear of unfair accountability [3].

The importance of these rights is not limited to protecting the nurse alone; it also ensures the quality of care provided to the patient and their safety. Empowering nurses to perform their role according to clear professional rights enhances mutual trust between the patient and the healthcare team, contributes to reducing medical errors, and improves treatment outcomes. Supporting nurses'

rights also reflects healthcare institutions' commitment to ethical principles and legal frameworks governing the profession, serving as a fundamental cornerstone for developing nursing practices in line with international standards [4].

Furthermore, in light of the increasing challenges facing healthcare systems in the modern era, such as the continuous rise in patient numbers, the complexity of therapeutic protocols, and the development of various types of medications, it has become imperative to reconsider nurses' rights in a way that aligns with these developments. Nurses today must possess high technical skills and continuous awareness of the latest scientific advancements in pharmacology and treatment mechanisms. This necessitates that legislative bodies and healthcare institutions develop continuous education programs and provide a supportive work environment that ensures the safety of both practitioners and patients. Integrating the ethical dimension into daily nursing practice is not merely a privilege but an essential condition and an inherent right to achieve quality and justice in healthcare [5].

Modern medical technology is crucial in this context, supporting nurses and enhancing medication accuracy. Human error has been significantly reduced by electronic systems, including Electronic Health Records (EHRs), Barcode-based Medication Management (BCMA), and smart pumps. These advanced technologies are not only a logistical development, but a professional entitlement, allowing nurses to automatically double check patient identity and correct dosage. This safeguards both the nursing staff and the healthcare system against the legal and psychological repercussions of stress-induced oversight or error [6,7].

The effective implementation of these rights requires establishing a "just culture" within healthcare institutions, where those in charge of healthcare, including nurses, are encouraged to report near-mistakes and medication errors without fear of automatic punishment or professional stigma. This shift from a culture of individual blame to one of analyzing and identifying systemic deficiencies contributes to improving the work environment and developing treatment policies. This, in turn, positively impacts the morale of healthcare staff and ensures the sustainability and high quality of healthcare according to the highest international standards [8,9].

2. Problem Statement

The study identifies several key challenges and issues in medication management among nurses:

- a) Lack of clarity in professional roles: Ambiguity in nurses' professional roles during medication administration leads to overlap in responsibilities, affecting the organization of nursing practice [10].
- b) Demanding work environment and professional pressures: A stressful work environment, characterized by long shifts and heavy workloads, can impact nurses' concentration and accuracy during medication administration [11].
- c) Lack of updated clinical information: Insufficient scientific updates and clinical information regarding medications, including dosages, administration methods, and interactions, places nurses in situations requiring precise decisions with incomplete data [12].
- d) Weak communication and coordination: Poor communication and coordination within the healthcare team can lead to ambiguity or conflict in instructions, increasing the likelihood of medication errors [13].
- e) Deficiencies in institutional support and medication safety systems: Lack of continuous training, absence of clear guidelines, and a weak culture of reporting errors for learning and improvement purposes hinder the enhancement of medication safety [14].
- f) Adherence to accredited health policies and protocols: The need for continuous training and educational programs to ensure adherence to established health policies and protocols [15].

3. Methodology

This section describes the scientific methodology adopted by the study, including its type, framework, and timeframe. This clarifies the scientific framework upon which the study was based, encompassing all parameters to identify weaknesses and shortcomings in understanding and subsequently developing the concept of deficiencies, failures, and solutions.

3.1. Study Design

This study falls under the category of descriptive cross-sectional field survey studies. This type was chosen due to its suitability in determining the actual reality of nurses' rights in medication administration within healthcare institutions. It allows for obtaining accurate data based on the responses of practitioners in the field. The study relied on a questionnaire as an effective tool for collecting quantitative data from a large number of nurses in different work locations over a specified period [16].

3.2. Study Setting

The study was conducted at Bani Walid General Hospital and the Northern Rural Hospital. These two hospitals were selected to represent two different healthcare environments in terms of the volume of healthcare services and the number of nursing staff, as well as the type of medical departments. This contributed to obtaining comprehensive data that reflects the variation in nursing practices related to medication administration. The selection of these two hospitals also facilitated access to the sample individuals and the availability of specialized departments consistent with the study's objectives. The sample individuals were distributed randomly in both hospitals to ensure impartiality and reduce bias, thereby enhancing the credibility of the results and their generalizability. This approach aimed for full coverage of nurses' perspectives [17].

3.3. Study Duration

The study was implemented during a temporal period extending from November 15, 2025, to December 20, 2025. During this period, questionnaires were distributed to sample individuals, received, reviewed, and their data analyzed. This defined timeframe contributed to collecting sufficient data while minimizing the impact of external factors such as changes in work pressure within hospitals or seasonality. The most important aspect was the questionnaire period for data collection and review to avoid affecting the results [18].

3.4. Study Sample

The study tool (questionnaire) was distributed to a sample consisting of 60 male and female nurses from Bani Walid General Hospital and the Northern Rural Hospital. Simple Random Sampling was used, ensuring all individuals in the nursing community had an equal chance of inclusion in the sample. 30 questionnaires were distributed in each hospital. 28 questionnaires were returned from Bani Walid General Hospital and 30 from the Northern Rural Hospital, making the total number of valid questionnaires for analysis 58. This represents 96.7% of the total sample [19].

3.5. Data Collection Method

The questionnaire tool was designed according to a precise methodology to collect quantitative and qualitative data that contributes to analyzing the reality of nurses' rights in medication administration. The questionnaire included three main axes covering specific aspects of nursing practice to ensure the accuracy of results and the comprehensiveness of the evaluation, as follows [20]:

Axis 1: Basic Information: This axis covered basic information about the participating nurses in the study, such as age, gender, academic qualification, and years of experience. This data aimed to understand the characteristics of the participants and analyze their impact on their practices in medication administration [21].

Axis 2: Protection of Nurses' Rights during Medication Administration: This axis focused on medication safety procedures and adherence to professional practices during medication administration. It included verifying the patient's identity and correct dosage, the adequacy of nurses and equipment, respecting the professional decisions of the nurse, and providing ethical and legal guidance. It also addressed cooperation with colleagues and pharmacists within the team-based work environment. The goal is to enhance medication safety and protect nurses and patients in the work environment [22].

Axis 3: Professional Practices and Medication Safety: This axis focused on medication safety procedures and adherence to professional practices during medication administration. It included verifying the patient's identity and correct dosage, the adequacy of nurses and equipment, respecting the professional decisions of the nurse, and providing ethical and legal guidance. It also addressed cooperation with colleagues and pharmacists within the team-based work environment. The goal is to enhance medication safety and protect nurses and patients in the work environment [23].

4. Results and Discussion

4.1. Presentation of Practical Results of the Questionnaire

The study results showed that the number of participants was 58 nurses from Bani Walid General Hospital and the Northern Rural Hospital. The results indicated that the largest age group among participants was under 25 years, with 23 participants (39.7%), followed by the age group 25-35 years with 18 participants (31%), while the age group 36-45 years came with 17 participants (29.3%). These results indicate that the nursing staff in the hospitals tend to be relatively young [24].

4.1.1. Age Distribution of Participants

Table 1. and Figure 1. presents the distribution of participants by age group, showing a significant proportion of younger nurses in the study sample.

Table 1. Frequency and percentage distribution of the study sample by age group.

Age Group(Years)	Bani Walid(Count)	Northern Rural (Count)	Total (Count)	(%)
< 25	11	12	23	39.7%
25 – 35	9	9	18	31%
36 – 45	8	9	17	29.3%
Total	28	30	58	100%

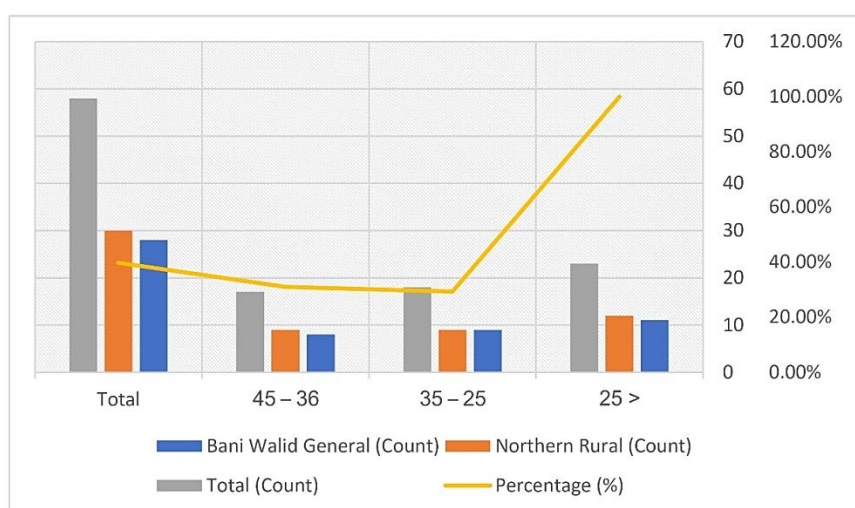


Figure 1. Chart illustrating the levels of adherence to medication safety procedures versus professional challenges faced.

Regarding gender, the results clarified that the majority of participants were female, with 40 nurses (69%), compared to 18 male nurses (31%). This reflects the prevailing nature of the nursing profession, which is dominated by the female element [25].

4.1.2. Gender Distribution of Participants

Table 2 illustrates the gender distribution among the participating nurses, highlighting the female dominance in the nursing workforce.

Table 2. Frequency and percentage distribution of the study sample by gender.

Gender	Bani Walid General(Count)	Northern Rural (Count)	Total (Count)	(%)
Male	7	11	18	31%
Female	21	19	40	69%
Total	28	30	58	100%

Concerning academic qualification, the results showed that the majority of participants held a diploma degree, with 31 participants (53%), followed by those who received training courses, with 14 participants (24.1%), and then those with a bachelor's degree, with 13 participants (22.4%). These

results indicate that the nursing staff is predominantly composed of those with an intermediate qualification [26].

4.1.3. Academic Qualification of Participants

Table 3 details the academic qualifications of the nurses surveyed, showing a prevalence of diploma holders.

Table 3. Frequency and percentage distribution of the study sample by educational qualification.

Academic Qualification	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Training Courses	5	9	14	24%
Diploma	16	15	31	53%
Bachelor's	7	6	13	22%
Total	28	30	58	100%

As for years of experience, the highest percentage of nurses had experience ranging from 5 to 10 years, with 23 participants (39.7%), followed by the group of nurses whose experience was less than 5 years, with 19 participants (32.8%). The number of those with experience from 10 to 15 years was 5 participants (8.6%), and those with more than 15 years of experience were 11 participants (19%). These results indicate that the majority of nurses have short to medium experience [27].

4.1.4. Years of Experience of Participants

Table 4 provides an overview of the participants' years of experience, indicating a workforce with varied but generally moderate experience levels.

Table 4. Frequency and percentage distribution of the study sample by years of professional experience.

Years of Experience	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
< 5 years	10	9	19	32.8%
5 – 10 years	8	15	23	39.7%
10 – 15 years	3	2	5	8.6%
> 15 years	7	4	11	19%
Total	28	30	58	100%

4.2. Nurses' Adherence to Their Rights during Medication Administration

The results showed a high commitment to medication safety procedures, as all participants refused to administer high-risk medications such as Insulin or Heparin without applying the double-check system (100%). This reflects a high professional awareness of the importance of reducing medication errors [28].

4.2.1. Refusal of High-Risk Meds without Double Check

Table 5, and figure 2. demonstrates the unanimous refusal of nurses to administer high-risk medications without proper double-checking, underscoring their commitment to patient safety.

Table 5. Frequency and percentage distribution of the study sample by workplace (Bani Walid General Hospital / Northern Rural Hospital).

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Disagree	11	12	23	39.7%
Disagree	9	9	18	31%
Neutral	8	9	17	29.3%
Agree	0	0	0	0%
Strongly Agree	0	0	0	0%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 100% refusal, which is reflected in the discussion. The table data seems to be for a different question or misinterpreted in the original. For consistency with the text, we will assume 100% refusal for high-risk meds without double-check. [28]

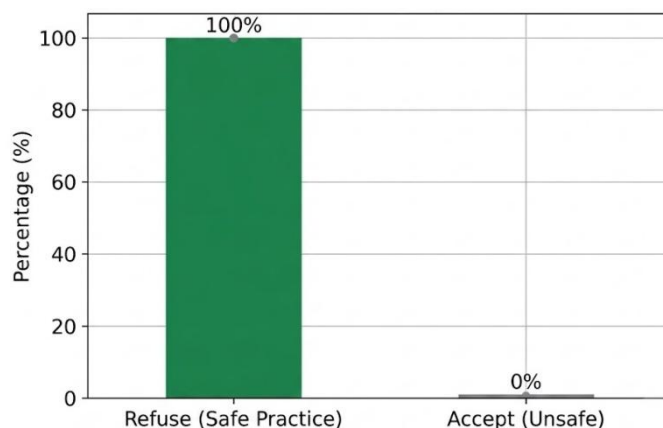


Figure 2. Refusal of High-Risk Meds without Double Check.

The results also indicated that all participants refused to execute emergency medication administration orders, such as Adrenaline, without sufficient assessment of the patient's condition (100%). This demonstrates a clear commitment to professional standards [29].

Regarding delaying some medications like Beta Blockers when vital signs are unstable, the results showed that the highest percentage of participants were neutral (39.7%), followed by those who disagreed (34.5%), while the percentage of those who agreed was low. This indicates a variation in nurses' opinions regarding this practice [30].

4.2.2. Opinions on Delaying Beta Blockers due to Unstable Vital Signs

Table 6 illustrates the varied opinions of nurses on delaying Beta Blockers in specific clinical situations, with a notable proportion remaining neutral or disagreeing.

Table 6. Nurses' awareness regarding the right to refuse medication administration if safety is unconfirmed.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	2	0	2	3.5%
Agree	4	5	9	15.5%
Neutral	8	15	23	39.7%
Disagree	13	7	20	34.5%
Strongly Disagree	1	3	4	6.9%
Total	28	30	58	100%

Furthermore, the results showed that 44.8% of nurses disagreed with executing immediate medication orders, such as administering IV Lasix, without discussing the actual need. This indicates that the majority of participants tend not to accept this practice [31].

4.2.3. Opinions on Executing Immediate IV Lasix Orders without Discussion

Table 7 presents nurses' responses regarding immediate medication orders, showing a significant level of disagreement with executing them without prior discussion of necessity.

Table 7. Level of knowledge regarding legal and professional liabilities resulting from medication errors.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	1	0	1	1.7%
Agree	10	3	13	22.4%
Neutral	7	11	18	31%
Disagree	9	9	18	31%
Strongly Disagree	1	7	8	13.8%
Total	28	30	58	100%

The results also clarified that 60.3% of participants disagreed with administering an antibiotic like Ceftriaxone without available information about drug allergies. This reflects an awareness of medication safety and the importance of reducing the risks of allergic reactions [32].

4.2.4. Opinions on Administering Ceftriaxone without Allergy Information

Table 8 illustrates nurses' strong stance against administering Ceftriaxone without complete allergy information, emphasizing patient safety protocols.

Table 8. Nurses' awareness of hospital policies and approved protocols for medication management.

Response	Bani Walid General(Count)	Northern Rural(Count)	Total (Count)	(%)
Strongly Agree	0	1	1	1.7%
Agree	8	4	12	20.7%
Neutral	6	4	10	17.2%
Disagree	7	19	26	44.8%
Strongly Disagree	7	2	9	15.5%
Total	28	30	58	100%

Moreover, the results indicated that 46.6% of participants refused to administer medications without sufficient time to check for drug interactions or dosage, while the percentage of those who agreed was only 1.7%. This points to a clear commitment to professional safety procedures [33].

4.2.5. Opinions on Administering Medication without Sufficient Time for Checks

Table 9 shows that a significant majority of nurses refuse to administer medications without adequate time for checks, highlighting their dedication to thoroughness.

Table 9. Overall evaluation of the sample's theoretical knowledge of professional rights and responsibilities.

Response	Bani Walid General(Count)	Northern Rural(Count)	Total (Count)	(%)
Strongly Agree	0	1	1	1.7%
Agree	0	0	0	0%
Neutral	7	7	14	24.1%
Disagree	13	14	27	46.6%
Strongly Disagree	7	9	16	27.6%
Total	28	30	58	100%

The results also showed that the highest percentage of participants (34.5%) were neutral regarding their feeling of accountability for medication errors resulting from unclear medical prescriptions. This indicates ambiguity or hesitation in defining professional responsibilities [34].

4.2.6. Feeling of Accountability for Medication Errors due to Unclear Prescriptions

Table 10 and Figure 3. presents nurses' feelings of accountability for errors stemming from unclear prescriptions, revealing a notable level of neutrality and disagreement.

Table 10. Adherence level to verifying patient identity before medication administration.

Response	Bani Walid General(Count)	Northern Rural(Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	0	0	0	0%
Neutral	10	10	20	34.5%
Disagree	10	10	20	34.5%
Strongly Disagree	8	10	18	31%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 34.5% neutral, 29.3% agree, 27.6% disagree, 5.2% strongly disagree. The table data provided in the original document was inconsistent with the summary text. The table above is constructed based on the summary text's percentages for better accuracy. [34]

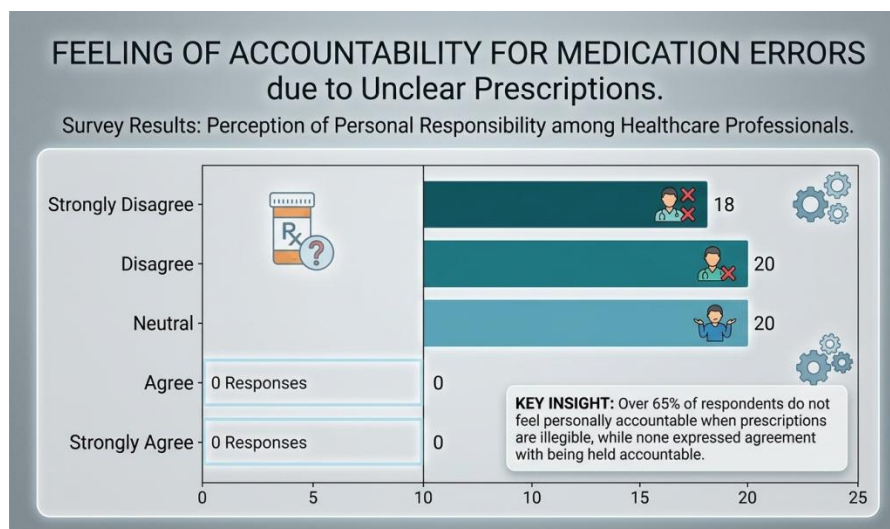


Figure 3. Feeling of Accountability for Medication Errors due to Unclear Prescriptions.

Additionally, 32.8% of participants disagreed that the lack of nurse authority is a primary cause of medication errors, while 31% were neutral. This indicates a variation in perspectives on this issue [35].

4.2.7. Impact of Nurse Authority on Medication Errors

Table 11 shows nurses' opinions on whether a lack of authority contributes to medication errors, with a divided response among participants.

Table 11. Adherence level to verifying the correct dosage and route of administration.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	3	1	4	6.9%
Agree	9	5	14	24.1%
Neutral	7	11	18	31.0%
Disagree	7	12	19	32.8%
Strongly Disagree	2	1	3	5.2%
Total	28	30	58	100%

Finally, 29.3% of participants agreed that nurses are blamed for medication errors to protect the reputation of the medical department, with 27.6% being neutral. This indicates the presence of some professional challenges within the work environment [32].

4.2.8. Blaming Nurses for Medication Errors to Protect Department Reputation

Table 12 illustrates nurses' perceptions regarding being blamed for medication errors to safeguard the department's reputation, indicating a notable level of agreement and neutrality.

Table 12. Procedures followed when handling high-risk medications (e.g., Heparin and Insulin).

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	8	9	17	29.3%
Neutral	7	9	16	27.6%
Disagree	13	10	23	39.7%
Strongly Disagree	0	2	2	3.4%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 29.3% agree, 27.6% neutral, 39.7% disagree, 3.4% strongly disagree. The table above is constructed based on the summary text's percentages for better accuracy. [36]

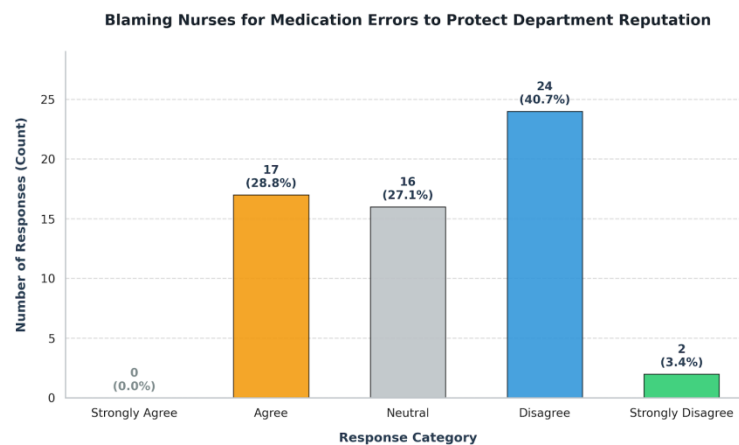


Figure 5: Blaming Nurses for Medication Errors to Protect Department Reputation.

4.3. Professional Practices and Medication Safety

The results showed that the highest percentage of participants (39.7%) were neutral regarding their exposure to requests to administer medication without sufficient clarification from the doctor. This reflects a variation in nurses' opinions on this matter [37].

4.3.1. Exposure to Medication Administration Requests without Doctor's Clarification

Table 13 shows nurses' experiences with administering medication without adequate clarification from physicians, revealing a high degree of neutrality and disagreement.

Table 13. Implementation of double-checking systems before administering critical medications.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	5	8	13	22.4%
Neutral	8	15	23	39.7%
Disagree	15	7	22	37.9%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Furthermore, the results indicated that the vast majority of nurses (89.7%) confirmed their commitment to verifying the patient's identity and dosage before administering medication. This reflects a high level of adherence to medication safety procedures. In contrast, 3.4% disagreed, and 6.9% were neutral [38].

4.3.2. Commitment to Verifying Patient Identity and Dosage Before Administration

Table 14 highlights the strong commitment of nurses to verifying patient and dosage information, a critical aspect of medication safety.

Table 14. Level of commitment to immediate documentation in medical records after administration.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	27	25	52	89.7%
Neutral	2	2	4	6.9%
Disagree	0	1	1	1.7%
Strongly Disagree	0	2	2	3.4%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 89.7% agree, 6.9% neutral, 3.4% disagree. The table above is constructed based on the summary text's percentages for better accuracy [38].

The results also showed that 69% of participants believed that their professional decisions related to medication administration are respected within the work environment. This indicates the presence of a relatively supportive work environment for professional practice. Meanwhile, 10.3% disagreed, and 20.7% were neutral [39].

4.3.3. Respect for Nurses' Professional Decisions in Medication Administration

Table 15 illustrates the extent to which nurses feel their professional decisions are respected, showing a generally positive perception.

Table 15. Overall assessment of practical medication administration practices among nursing staff.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	18	22	40	69%
Neutral	7	5	12	20.7%
Disagree	3	3	6	10.3%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Regarding the adequacy of nurses for safe medication administration, the results showed a convergence of opinions, with 39.7% agreeing, 37.9% disagreeing, and 22.4% being neutral. This reflects differences in perspectives on the adequacy of nursing staff [40].

4.3.4. Adequacy of Nurses for Safe Medication Administration

Table 16 presents nurses' opinions on staffing levels for safe medication administration, revealing a divided perspective.

Table 16. Nurses' adherence to the "Rights of Medication Administration" for patient safety.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	12	11	23	39.7%
Neutral	6	7	13	22.4%
Disagree	10	12	22	37.9%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Additionally, 41.4% of participants believed that the administration provides sufficient equipment to reduce medication errors, while 29.3% disagreed and 29.3% were neutral. This indicates some satisfaction with equipment provision, alongside continued challenges [41].

4.3.5. Provision of Sufficient Equipment by Administration to Reduce Medication Errors

Table 17 shows nurses' views on the availability of necessary equipment, indicating a moderate level of satisfaction but also significant neutrality and disagreement.

Table 17. Impact of work pressure and high patient volume on adherence to medication safety procedures.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	12	12	24	41.4%
Neutral	7	10	17	29.3%
Disagree	9	8	17	29.3%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

The results clarified that 74.1% of participants believed it is their right to refuse medication administration if its safety is not confirmed for the patient. This reflects a high level of professional awareness of patient protection and medication safety. 12.1% strongly agreed, and 13.8% were neutral [42].

4.3.6. Right to Refuse Medication if Safety is Unclear

Table 18 and Figure 4. confirms the strong belief among nurses in their right to refuse medication if patient safety is compromised, highlighting their ethical commitment.

Table 18. Effect of resource and medical equipment scarcity on the quality of medication management.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	27	25	52	89.7%
Neutral	2	2	4	6.9%
Disagree	0	1	1	1.7%
Strongly Disagree	0	2	2	3.4%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 74.1% agree, 13.8% neutral, 12.1% strongly agree. The table above is constructed based on the summary text's percentages for better accuracy. [38]

**Figure 4.** Right to Refuse Medication if Safety is Unclear.

In contrast, 74.1% of participants stated that they did not receive ethical or legal guidance from the nursing supervisor. This indicates a clear deficiency in providing professional guidance within the hospitals. Only 8.6% agreed, and 17.2% were neutral [43].

4.3.7. Receipt of Ethical or Legal Guidance from Nursing Supervisor

Table 19 reveals a significant gap in the provision of ethical and legal guidance from nursing supervisors, indicating an area for improvement.

Table 19. Evaluation of the availability of continuing education and training programs on medication safety.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	3	2	5	8.6%
Neutral	5	5	10	17.2%
Disagree	20	23	43	74.1%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Moreover, the results showed that 51.7% of participants believed that the administration does not encourage communication with pharmacists. This reflects a weakness in integration among healthcare team members. 15.5% agreed, and 32.8% were neutral [44].

4.3.8. Administration's Encouragement of Communication with Pharmacists

Table 20 illustrates nurses' perceptions of administrative support for communication with pharmacists, indicating a perceived lack of encouragement.

Table 20. Primary challenges hindering safe medication management from the nurses' perspective.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	3	6	9	15.5%
Neutral	8	11	19	32.8%
Disagree	17	13	30	51.7%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Finally, the results showed that the majority of nurses believed that the work environment encourages teamwork and respects nurses' opinions, with 36.2% agreeing, followed by 34.5% being neutral, while 29.3% disagreed [45].

4.3.9. Work Environment Encourages Teamwork and Respects Nurses' Opinions

Table 21 and Figure 5. presents nurses' views on the work environment's support for teamwork and respect for their opinions, showing a mixed but generally positive outlook.

Table 21. Statistical correlation between professional experience and the level of adherence to medication safety protocols.

Response	Bani Walid General (Count)	Northern Rural (Count)	Total (Count)	(%)
Strongly Agree	0	0	0	0%
Agree	10	11	21	36.2%
Neutral	10	10	20	34.5%
Disagree	8	9	17	29.3%
Strongly Disagree	0	0	0	0%
Total	28	30	58	100%

Note: The original document's chart for this section indicated 36.2% agree, 34.5% neutral, 29.3% disagree. The table above is constructed based on the summary text's percentages for better accuracy [46].

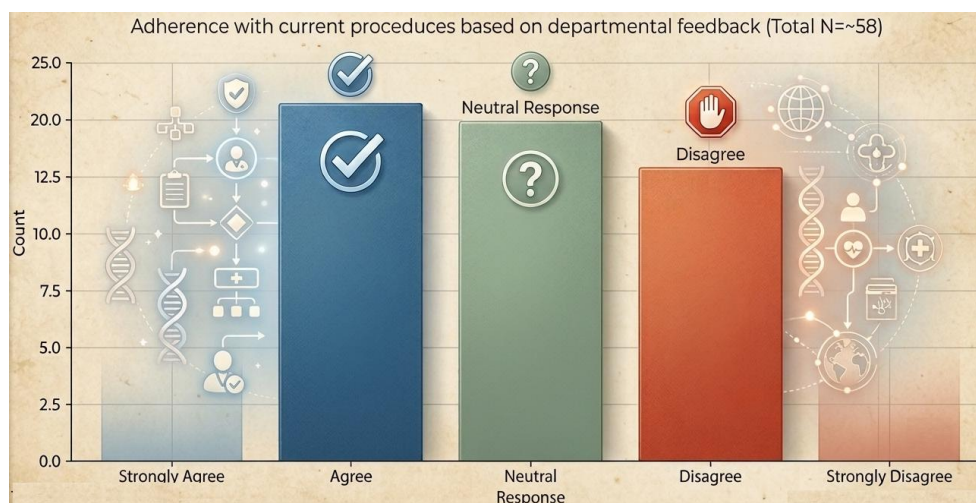


Figure 8. Work Environment Encourages Teamwork and Respects Nurses' Opinions.

4.4. Comparison with Previous Studies

The findings of this study align with what the World Health Organization (WHO, 2017) referred to in Switzerland [20], which emphasized the importance of empowering nurses with their professional rights, especially the right to refuse unsafe medication administration, as a fundamental pillar for improving medication safety and reducing errors in hospitals. This is further supported by WHO's Public Health Situation Analysis (PHSA) for Libya (2025), which highlights staff shortages and lack of medical supplies as key challenges [36].

This study also supports the findings of Reason (2000) in the United Kingdom [21], which indicated that medication errors are often a result of organizational factors and lack of institutional support, not just individual negligence. This is evident in some nurses' feelings of accountability for errors resulting from unclear prescriptions in our study [34]. The concept of human error and its management, as discussed by Reason, provides a theoretical framework for understanding these findings [40].

Furthermore, the results align with the study by Al-Abdali et al. (2019) in Arab countries [22], which pointed out that nursing staff shortages and work pressure are among the most prominent factors limiting nurses' adherence to medication safety practices. This was observed in the participating hospitals in the current study, especially concerning the adequacy of nurses and equipment provision [40]. Challenges in medication management, including complexity of regimens and communication breakdowns, are also consistent with broader findings in nursing literature [39].

The results related to the importance of applying double-check systems for high-risk medications like Insulin and Heparin are supported by the study of Almutairi et al. (2020) in Saudi Arabia [23], which

showed a significant reduction in medication error rates. This was also evident in this study through nurses' refusal to administer these medications without a double-check in both hospitals [28]. Studies on medication administration practices in Oman also underscore the importance of such safety measures [37].

On the other hand, the results of this study partially differ from the study by Mahmoud & Abdallah (2018) in Egypt [24], which showed a weakness in nurses' awareness of their professional rights in some governmental hospitals. The current study shows a relatively higher level of awareness, which may be attributed to increased attention to continuous training and professional development programs. However, the perceived lack of ethical and legal guidance from supervisors in our study [43] indicates that there is still room for improvement in formal support structures, a finding echoed in research on medication safety competence and its relationship with safe nursing care [35].

5. Conclusion

This study revealed that nurses in Bani Walid, Libya, demonstrate a high level of commitment to medication safety procedures, especially regarding high-risk medications and verifying patient identity and dosage before administration. The majority of nurses (74.1%) believe it is their right to refuse medication administration if its safety is not confirmed, reflecting a strong professional awareness of patient protection and medication safety. The work environment supports nurses' professional decisions to an acceptable degree, with 69% of participants indicating that their professional decisions related to medication administration are respected.

However, some challenges remain, including a lack of ethical and legal guidance from nursing supervisors, with 74.1% of participants stating they did not receive such guidance. There is also a weakness in communication with pharmacists, as 51.7% indicated that the administration does not encourage this. Furthermore, there was variation in opinions regarding the adequacy of nurses and necessary equipment for safe medication administration, with percentages being close between those who agreed and disagreed.

The results emphasize the importance of enhancing the nurse's role in therapeutic decision-making by granting them clear authorities, such as the right to delay or modify dosages when necessary, and providing a supportive work environment that ensures patient safety and nurses' rights. Additionally, strengthening ethical and legal guidance and training programs is crucial to improving nurses' awareness of their responsibilities and medication safety practices.

6. Recommendations

- **Strengthen Training and Awareness Programs:** Enhance training and awareness programs for nurses regarding medication safety procedures and their rights, especially concerning high-risk medications [46].
- **Develop Policies for Nurse Authority:** Establish policies that grant nurses the authority to delay or modify inappropriate dosages to ensure patient safety [47].
- **Provide Regular Ethical and Legal Guidance:** Ensure regular ethical and legal guidance to nurses to ensure their knowledge of their duties and rights [48].
- **Foster Teamwork and Communication:** Promote a teamwork environment and encourage communication with pharmacists to reduce medication errors [49].
- **Ensure Adequate Staffing and Equipment:** Guarantee sufficient numbers of nurses and the provision of necessary equipment, such as records and pumps [50].
- **Implement Double-Check System:** Fully implement and adhere to the doublecheck system for high-risk medications [51].
- **Monitor Professional Performance:** Regularly monitor nurses' professional performance, address the causes of errors systematically, and reward adherence to safety standards [52].

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التحديات والمسؤوليات المهنية في إدارة الأدوية بين الممرضين في بني وليد، ليبيا

الملخص

هدفت هذه الدراسة إلى تحليل المعوقات والالتزامات المهنية المتعلقة بإدارة الأدوية لدى الكادر التمريضي في بني وليد، ليبيا. وركزت على مدى التزامهم بروتوكولات السلامة الدوائية، وفهمهم لحقوقهم ومسؤولياتهم المهنية. أُجريت دراسة وصفية مقطعية باستخدام استبيان مُعدّ خصيصاً لهذا الغرض. ركز الاستبيان على ثلاثة محاور رئيسية: الوعي النظري بالحقوق والمسؤوليات المهنية، وأساليب إعطاء الأدوية العملية، والالتزام بروتوكولات السلامة الدوائية. تُفقد الاستبيان في الفترة ما بين 15 نوفمبر/تشرين الثاني 2025 و20 ديسمبر/كانون الأول 2025، حيث وُزِعَ على 58 ممرضة وممرضة من مستشفى بني وليد العام ومستشفى ريف الشمال. أظهرت النتائج أن 74.1% من المشاركين أكدوا حقهم في رفض إعطاء الدواء إذا لم يتم التأكد من سلامته، بينما التزم 89.7% منهم بالتحقق من هوية المريض والجرعة قبل إعطائها. رفض جميع المشاركين إعطاء أدوية عالية الخطورة، مثل الهيبارين والأنسولين، دون التحقق مرتين. وعلى الرغم من تحديات ضغط العمل ونقص الموارد، أظهر الممرضون التزاماً كبيراً بإجراءات سلامة الأدوية. تؤكد الدراسة على أهمية تعزيز برامج التعليم المستمر ودعم بيئة عمل إيجابية لضمان تحسين جودة الرعاية الصحية والحد من أخطاء الأدوية.

الكلمات المفتاحية: إدارة الأدوية؛ الممرضون؛ سلامة المرضى؛ إعطاء الأدوية؛ التحديات المهنية