

Causes of medication administration errors and barriers to reporting as perceived by nurses in Saudi Arabia: A qualitative study

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Abstract

Background: Medication administration errors significantly impact patient safety, potentially leading to severe harm or fatality. Reporting such errors through active systems improves medication administration, thereby enhancing patient safety and the quality of care. However, in the context of Saudi Arabia, little is understood about the causes of medication administration errors and the obstacles hindering their reporting.

Objective: This study aimed to explore nurses' perceptions of the causes of medication administration errors and the barriers to reporting them.

Methods: The study employed a qualitative descriptive design, conducting face-to-face semi-structured interviews with 43 nurses from three hospitals in Taif Governorate, Saudi Arabia, between October and November 2023. Purposive sampling was used to recruit participants, and thematic analysis was utilized for data analysis.

Results: The following themes emerged regarding the causes of medication administration errors: order deficiencies, high workloads and staff shortages, and malpractice. Regarding the barriers to reporting errors, the emerging themes were fear of punishment and lack of support, lack of knowledge and awareness about reporting, and lack of feedback.

Conclusion: This study reveals nurses' perceptions of the causes of medication administration errors and the barriers to reporting them. Recognizing and addressing these causes and barriers are essential for patient safety and the improvement of the healthcare environment. Efforts should be directed toward implementing interventions that address high workloads, enhance staff education and awareness, and promote a workplace culture conducive to reporting errors without fear of repercussions. Additionally, supportive mechanisms, such as feedback systems and resources for professional development, should be implemented to empower nurses to actively participate in error reporting and contribute to continuous improvement in medication administration practices.

Keywords

medication administration errors; causes; barriers; reporting; nurses; Saudi Arabia

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Background

Medication administration errors present a substantial risk to the safety of patients and are a major contributor to adverse events within healthcare environments (Brabcova et al., 2023; Jang et al., 2021). The National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) (2016) provides a definition of a medication error as any avoidable incident that has the potential to cause or result in improper medication usage or harm to the patient while the medication is under the supervision of a healthcare professional, patient, or consumer. Medication errors cause considerable mortality and morbidity and drastically increase healthcare costs. The global yearly cost of medication errors has been estimated to reach USD 42 billion (World Health Organization, 2017). Such errors are ranked as the third most common cause of death; data suggest that they contribute to approximately 250,000 deaths each year in the United States (Anderson & Abrahamson, 2017). Furthermore, it is estimated

that a substantial number of patients encounter unfavorable responses or additional complexities linked to medications; however, these are often not officially documented or reported (Tariq et al., 2018). In a systematic review that was conducted to evaluate studies undertaken to identify medication error rates within Saudi Arabia hospitals, a major finding was reported that the medication error rate reached 94% (Almalki et al., 2021). This may show evidence of common medication errors and alert the need for better medication management systems within the Saudi Arabian healthcare system.

Nurses assume a significant role in medication management, particularly medication administration. Their perceptions about medication administration are also crucial, as they possess valuable insights into the causes of medication errors and the barriers they encounter when reporting them (Abou Hashish & El-Bialy, 2013; Jang et al., 2021). A literature review expounded the diverse causes of medication administration errors observed by staff nurses. Various factors, including poor communication, heavy

workloads, time pressure, deficiencies in medication orders, and lack of knowledge and training, significantly contribute to the incidence of medication administration errors (Alzoubi et al., 2023; Brabcova et al., 2023; Fathallah Mostafa et al., 2023; Hammoudi et al., 2018; Tsegaye et al., 2020). Staff nurses frequently confront high patient-to-nurse ratios, resulting in expedited medication administration and high susceptibility to errors. This issue is further exacerbated by fatigue, understaffing, and limited resources.

Several other factors contributing to medication administration errors were identified as significant predictors of medication administration errors. These factors included inadequate training, the lack of a drug administration guideline, insufficient work experience, interruptions throughout the administration process, and night shifts (Wondmieneh et al., 2020). Inadequate training and knowledge have been linked to unsafe medication administration practices. These unsafe practices, along with insufficient familiarity with medication indications, dosage calculations, drug interactions, and appropriate administration techniques, result in medication administration errors (Tsegaye et al., 2020; Wondmieneh et al., 2020). In addition, related organizational factors contribute to medication administration errors, such as the lack of clarity regarding the second nurse's responsibility in conducting medication administration checks, the lack of feedback on medication errors, and a prevailing and putative practice of drug administration in the absence of a comprehensive medication order (Alandajani et al., 2022; Tsegaye et al., 2020). Furthermore, the nurses identified that the doctors' illegibility and drug order confusion were causing medication errors (Ayorinde & Alabi, 2019; Parry et al., 2015). Insufficient medication reconciliation procedures, absence of standardized protocols, and suboptimal utilization of technology can likewise be influential factors in the occurrence of errors.

Barriers to reporting have various causes, including a blame culture, fear of potential consequences, absence of robust reporting mechanisms and supportive structures, acceptance of errors as routine occurrences, and limitations imposed by time constraints. The fear of being held responsible for the deterioration of patients' well-being, as well as the apprehension of encountering negative sentiments from patients or their families and potential legal ramifications, contribute to nurses' fear (Abou Hashish & El-Bialy, 2013; Alzoubi et al., 2023; Brabcova et al., 2023; Dyab et al., 2018; Fathallah Mostafa et al., 2023; Hammoudi et al., 2018; Mohammad et al., 2016; Yung et al., 2016). Other barriers that impede reporting include administrative paperwork requirements and a lack of managerial support and encouragement (Dyab et al., 2018). A lack of reporting systems that are easily accessible and user-friendly, as well as inadequate organizational support for error reporting, also represent significant barriers. Moreover, onerous reporting procedures, the absence of anonymity, and a perceived lack of responsiveness from managerial personnel may deter staff nurses from reporting errors (Abou Hashish & El-Bialy, 2013; Brabcova et al., 2023).

In the Saudi Arabian context, little is known about the factors that contribute to medication administration errors and the obstacles that prevent the reporting of these errors (Alblowi et al., 2021; Alshaikh et al., 2013; Alsulami et al., 2013;

Mohammad et al., 2016). Thus, this study aimed to explore nurses' perceptions of the causes of medication administration errors and the barriers to reporting them. The objectives of this study were as follows: a) to ascertain the factors that nurses perceived to contribute to medication errors, b) to explore the barriers that staff nurses encounter in the process of reporting medication errors, and c) to explore potential approaches and interventions that can improve medication safety and reporting practices, drawing upon the insights gained from the study's findings.

Gaining a comprehensive understanding of nurses' perspectives on the underlying causes of medication administration errors and the barriers to reporting them can yield valuable insights for healthcare organizations and policymakers. These insights can inform the development of focused interventions to improve patient safety and enhance reporting practices. The findings of this study can also provide valuable insights for informing policy changes, developing training programs, and implementing strategies to address the identified barriers and foster a workplace culture focused on safety. Hence, reporting medication administration errors through an evidence-based and organized system can effectively improve medication management and eventually enhance patient safety within the Saudi healthcare system.

Methods

Study Design

This study utilized a qualitative descriptive design, which is common in healthcare and nursing research because of its flexibility, simplicity, and usefulness in diverse research contexts (Doyle et al., 2020). Such design enables the investigation of participants' subjective experiences, perceptions, and attitudes, which is especially relevant in the context of this study. Braun and Clarke (2006) state that qualitative research helps researchers explore, interpret, and comprehend the meanings and patterns inherent to their chosen study topic. Additionally, qualitative research is considered an effective way to explore information and enable the researcher to gain an in-depth understanding of the study's phenomena (Creswell, 2015; Polit & Beck, 2017). Hence, the qualitative descriptive design was chosen as an effective way to thoroughly understand nurses' perceptions of the underlying contributing factors to medication errors and the barriers to reporting them.

Samples/Participants

This study was undertaken at three hospitals in the Taif Governorate in Saudi Arabia. These hospitals were King Faisal Hospital, King Abdulaziz Specialist Hospital, and Children's Hospital; all are major hospitals providing healthcare to the majority of people in the Governorate. The participants comprised 43 nurses who worked in different wards and units in the three hospitals. To ensure a diverse representation in terms of age, gender, years of experience, and clinical specialties, a purposive sampling technique was utilized (Creswell, 2015). The recruitment process aimed to include a cohort of approximately 30–50 participants. However, the final sample size was contingent upon data saturation, which occurs when no novel information arises from the interviews (Creswell, 2015). The sample included 1)

all nurses with at least one year of experience as a staff nurse and 2) the nurses currently caring for patients and administering medications to them.

Data Collection

The data collection began through direct contact with the nursing managers of the three hospitals to assist with the recruitment of participants. Flyers were hung in the nurses' lounges, providing information about the study. Nurses were also approached and informed about the study to ensure their participation. Interviews were scheduled with those who were willing to participate at a suitable time and location. Data were gathered using qualitative, in-person, semi-structured interviews that gathered comprehensive, in-depth insights from the participants (Creswell, 2015; Polit & Beck, 2017). The researcher conducted the interviews in English and audio-recorded them. Subsequently, the recordings were transcribed verbatim to facilitate data analysis. The interviews focused on eliciting participants' perspectives about the causes of medication administration errors and the barriers impeding reporting such errors. Each interview lasted 30 minutes to 1 hour and was carried out between October and November 2023. For the interviews, the researcher (interviewer) used the interview guide (protocol) that contained the questions developed for the study.

The interview questions were formulated through a comprehensive examination of related scholarly literature and consultation with subject matter experts, taking into consideration the study aims. As the causes of medication administration errors were one of the main elements of the related literature, a question about the causes was formulated (Alzoubi et al., 2023; Brabcova et al., 2023; Fathallah Mostafa et al., 2023; Hammoudi et al., 2018; Tsegaye et al., 2020). Since the barriers to medication administration errors were another main element of the related literature, a question about the barriers was also formulated (Brabcova et al., 2023; Fathallah Mostafa et al., 2023; Hammoudi et al., 2018). During the interview guide development, the key questions of the study were prioritized. The questions include: 1) Could you tell me about medication administration errors and the reporting of them? 2) Can you tell me what the causes are for medication administration errors? 3) Can you tell me what the barriers are to reporting medication administration errors? 4) Would you like to add anything else?

Data Analysis

Data were analyzed using a thematic analysis to identify patterns in the meaning of the data and generate themes (Braun & Clarke, 2006). The procedure entailed the identification of patterns, themes, and categories within the dataset, thereby facilitating the extraction of significant insights. Data were analyzed manually through the use of printouts of the interview transcripts, which applied six phases of thematic analysis as outlined by Braun and Clarke (2006). First, all interviews were transcribed verbatim, and the transcriptions were examined for accuracy. Following the first phase of thematic analysis, the researcher became familiarized with the data through data collection, transcription, reading and re-reading the data, and noting initial ideas. The second phase involved generating initial codes for information relevant to the study; these codes indicated potential patterns

throughout the transcripts. In the third phase, the researcher examined and classified the initial codes to search for and identify potential themes. The fourth phase involved reviewing the potential themes against the dataset to determine their alignment with the aim of the study. In the fifth phase, the reviewed themes were defined and named according to the essence of each theme, which provided detailed information about the themes. Finally, in phase six, the researcher synthesized the analysis and wrote up the findings of this study (Braun & Clarke, 2006).

Rigor

Study rigor was used as a lens to guarantee the quality of this research. The researcher engaged in introspection on his role and position throughout the stages of this study. Lincoln and Guba (1985) argued that qualitative researchers must ensure trustworthiness to uphold the study's rigor. Therefore, the researcher adopted four criteria for trustworthiness: confirmability, credibility, dependability, and transferability (Lincoln & Guba, 1985). Through prolonged engagement with the study data during analysis, the researcher maintained the credibility of the findings. The transferability of the findings can be considered a result of the ongoing process of critical analysis and reflections of the findings to the study context. In addition, by continuously reviewing the data throughout the process of data collection and analysis, the researcher ensured dependability. Lastly, confirmability was ensured by maintaining an audit record of the whole process (Lincoln & Guba, 1985).

Ethical Considerations

The present study adhered to established ethical guidelines and principles, thereby preserving participant confidentiality and voluntary participation. Before commencing data collection, the researcher obtained ethical approval from the Institutional Review Board of the Taif Directorate of Health Affairs (HAP-02-T-067#866). The participants received comprehensive information regarding the study and its aim. In addition, informed written consent was obtained from all participants. Privacy and voluntary participation were assured throughout the study process. A system of unique identifiers was employed to ensure confidentiality, and all data were securely stored. The participants were notified that they could discontinue their involvement in the research at any point without facing any negative repercussions and being required to explain.

Results

Characteristics of the Participants

A total of 43 nurses participated in this study. The participants comprised 21 Saudi (48.8%) and 22 non-Saudi (51.2%) nurses. Among them, 16 were men (37.2%) and 27 were women (62.8%), and most of the nurses were aged 31–40 years (57%). In addition, most participants had a diploma or bachelor's degree and over five years of experience as staff nurses. Their perceived causes of medication administration errors were order deficiencies, high workloads, staff shortages, and malpractice. Barriers to reporting the errors were attributed to fear of punishment and not being supported,

lack of knowledge and awareness about reporting, and lack of feedback.

Themes Regarding the Causes of Medication Administration Errors

Order Deficiencies

The nurses in this study indicated that order deficiencies were an essential cause of medication administration errors. They specified that the following factors led to the occurrence of errors: poor handwriting, inappropriate use of abbreviations, and mistakes with order prescription and transcription.

One of the nurses stated, *"Medication errors may occur at any stage, starting with the first prescription by the physician and continuing through the administration process"* (RN-4). Another staff nurse detailed, *"The error may arise at the prescription stage when a physician employs inappropriate acronyms for medicine, which might be misconstrued by the nurse, leading to medication errors"* (RN-16). Another nurse added, *"I think that some of the medication errors occur due to the illegible handwriting of the physicians"* (RN-21). To explain further, one of the nurses stated, *"From my observation and my reporting, medication errors occur either when the physician is prescribing or when the nurse is transcribing the medication order"* (RN-28).

According to this information, a lack of order precision, unclear medication orders, and proper order handling can create order deficiencies and result in medication administration errors.

High Workloads and Staff Shortages

The nurses also highlighted high workloads and staff shortages as additional causes of medication administration errors. One of the nurses stressed this, *"The shortage of hands and the excess of tasks during the care for patients sometimes lead us to accidentally have medication administration errors"* (RN-5). Another staff nurse explained, *"In the medical departments, we often encounter a large number of patients and sometimes experience a deficit in personnel, leading to medication errors due to the excessive workload"* (RN-23). In addition, a nurse stated, *"The absence of adequate staff who can ensure the integrity of medication orders and their administration often results in medication administration errors"* (RN-34).

The insufficient number of nurses and the heavy workloads that nurses face result in frequent errors in medication administration.

Malpractice

The last cause that the nurses perceived as a contributing factor to medication administration errors was malpractice. One of the nurses stated, *"Medication administration errors usually occur when some nurses are not complying with the policy and procedures of medication administration"* (RN-12). Another nurse added, *"Errors occur when some of the processes of medication administration are neglected"* (RN-24). In more detail, one nurse specified, *"The lack of or improper double-checking by the nurses often causes medication administration errors"* (RN-37). Thus, errors can occur when nurses do not implement medication administration correctly.

Themes Regarding the Barriers to Reporting Errors

Fear of Punishment and Not Being Supported

The fear of punishment and not being supported was the most frequently reported barrier. The 'fear' aspect comprised apprehension of punishment and worry of legal action (license losing). One of the nurses stated, *"We are really fearful of facing disciplinary action or the revocation of our licenses if we disclose a drug error that has occurred"* (RN-9). Another nurse highlighted, *"It seems that the culture of punishment deters the reporting of medication administration errors"* (RN-15). An element related to this barrier is that nurses sometimes do not receive support when they report a medication error. One of the nurses addressed this: *"We may not disclose a medication administration error as occasionally managers are not supporting us"* (RN-38). Similarly, another nurse said, *"Leaders sometimes are not supportive when we report an error; sadly, we neglect reporting them again"* (RN-43).

Thus, the fear of punishment and not being supported is considered a common and major barrier to reporting medication administration errors among nurses.

Lack of Knowledge and Awareness about Reporting

The nurses did not feel comfortable reporting medication administration errors due to their deficiency of knowledge and awareness about the reporting process. Insufficient knowledge and awareness about the reporting system and the steps of reporting errors create a barrier to reporting errors.

One of the nurses highlighted, *"The ignorance about the process of reporting and knowledge of its importance impede the reporting of errors"* (RN-2). Another nurse stated, *"The lack of awareness about reporting mechanisms creates a blind spot towards the reporting of medication administration errors"* (RN-11). In addition, one nurse explained, *"There is a gap in knowledge about reporting and a lack of awareness as regards the cycle of the reporting system, which we need to be alerted about"* (RN-19).

Therefore, according to the nurses, the lack of knowledge and awareness about reporting creates a barrier to reporting medication administration errors.

Lack of Feedback

The staff nurses also indicated that the lack of feedback from the relevant personnel or departments is a crucial barrier to reporting medication administration errors. Not receiving feedback regarding the reported errors creates a perception among nurses that they should not report errors again.

For example, one of the nurses stated, *"I used to report medication administration errors at an earlier time. However, I stopped since I have not received any feedback regarding them"* (RN-10). Another nurse also described this lack of feedback: *"It is like a one-way street; with no return information to the department, we are missing a crucial opportunity for reflection and learning from feedback"* (RN-22). Furthermore, one of the nurses stressed, *"The lack of feedback is like the absence of guidance; thus, we sometimes are not motivated to report the errors"* (RN-31). As indicated by the nurses, a lack of feedback discourages them from reporting medication administration errors, thus making them a barrier to reporting errors.

Discussion

The research investigated the nurses' perspectives on the factors contributing to medication errors and the obstacles preventing their reporting. According to the findings of this study, order deficiencies, high workloads, staff shortages, and malpractice were the causes of medication administration errors. The barriers to reporting errors were the fear of punishment and not being supported, lack of knowledge and awareness, and lack of feedback.

The nurses highlighted that a major cause of medication administration errors was order deficiencies. They indicated that the deficiencies in drug orders and the lack of clarity lead to errors. A study conducted by [Brabcova et al. \(2023\)](#) exploring the reasons for medication administration errors from nurses' perspectives reported similar findings; these authors found that illegible medical orders and errors in drug names caused medication administration errors. In addition, other studies have reported that confusion in drug orders, medication packaging issues, poor communication, unclear medication orders, and transcribing issues contributed to medication administration errors ([Alblowi et al., 2021](#); [Alzoubi et al., 2023](#); [Ayorinde & Alabi, 2019](#); [Hammoudi et al., 2018](#)). Furthermore, other studies have reported that a lack of comprehensive medication orders and insufficient medication reconciliation procedures can lead to errors ([Ayorinde & Alabi, 2019](#); [Parry et al., 2015](#)). Hence, an extensive electronic medication order and administration system is needed to prevent errors.

The nurses also reported high workloads and staff shortages as contributing factors to medication administration errors. They specified that they had excessive workloads that affected their administration of medication and led to errors. In a similar study undertaken in Jordan that evaluated nurses' perspectives about the reasons for drug administration errors and the obstacles to reporting them, the most reported cause was insufficient staffing ([Yousef et al., 2021](#)). According to another study conducted by [Fathallah Mostafa et al. \(2023\)](#), the heavy workload was the most shared reason for medication administration errors. Similar findings have been highlighted by other studies, which have reported that a heavy workload is one of the contributing factors to medication administration errors ([Alblowi et al., 2021](#); [Brabcova et al., 2023](#); [Hammoudi et al., 2018](#); [Tsegaye et al., 2020](#)). Staff nurses frequently confront high patient-to-nurse ratios, resulting in expedited medication administration and heightened susceptibility to errors ([Brabcova et al., 2023](#); [Fathallah Mostafa et al., 2023](#); [Yousef et al., 2021](#)). This seems evident as the reported nurse-to-patient ratio for Saudi Arabia in 2021 is (57/10,000) which is low compared to the international context ([World Health Organisation Global Health Observatory Data \(WHO-GHOD\), 2021](#)). This appears to result in high workloads and the need for more staff nurses, which the nurse leaders in healthcare institutions must address.

In addition, nurses reported malpractice as a cause of medication errors. They emphasized that failure to follow the standards for drug administration and disregarding the regulations of medicine administration led to errors. Similar studies have highlighted that unsafe and negligent medication administration contributes to medication administration errors

([Tsegaye et al., 2020](#); [Wondmieneh et al., 2020](#)). Another study reported that malpractice in medication administration, particularly when nurses miscalculate the dose of drugs, contributes to medication administration errors ([Abdalla et al., 2020](#)). This malpractice seems to result from knowledge and adequate training, as evidenced by related studies ([Tsegaye et al., 2020](#); [Wondmieneh et al., 2020](#)). This highlights the need for adequate training on medication-safe practice administration and the importance of motivation to increase nurses' knowledge about pharmacology.

Regarding the barriers to reporting, many nurses highlighted the fear of punishment and not being supported as an obstacle to medication administration error reporting. The most frequently reported barrier was the fear of punishment and not being supported; this was considered a critical barrier and included the fear of repercussions from nursing administration and the fear of legal action, such as the loss of the license. Similar findings have been reported by other studies, which have reported that this factor is considered a major obstacle to reporting medication administration errors ([Alzoubi et al., 2023](#); [Dyab et al., 2018](#); [Fathallah Mostafa et al., 2023](#); [Hammoudi et al., 2018](#); [Yousef et al., 2021](#); [Yung et al., 2016](#)). In addition, other studies have reported that nurses refrained from reporting errors to avoid punishment or legal actions ([Abou Hashish & El-Bialy, 2013](#); [Brabcova et al., 2023](#); [Mohammad et al., 2016](#); [Rutledge et al., 2018](#)). A culture of blame and continuous threats of legal actions and firing may be a reason that some nurses don't report errors; the presence of a blame culture within healthcare organizations can exacerbate the disincentive to report incidents ([Abou Hashish & El-Bialy, 2013](#); [Brabcova et al., 2023](#); [Dyab et al., 2018](#)). Such a culture can negatively impact the quality of care and safety of patients ([Abou Hashish & El-Bialy, 2013](#); [Dyab et al., 2018](#); [Hughes, 2008](#)). In a systematic review that was conducted by [Albalawi et al. \(2020\)](#), the blame culture was highlighted as a negative factor within the healthcare services in Saudi Arabia. Hence, it is essential to establish a culture that prioritizes safety and implements a supporting mechanism for nurses to report errors.

The nurses also indicated that a lack of knowledge and awareness about reporting hinders medication administration error reporting. Most of the nurses stated that they lacked knowledge about reporting errors. Similarly, in a qualitative study conducted in Malaysia, nurses showed a lack of knowledge and uncertainty about the system for reporting medication administration errors ([Dyab et al., 2018](#)). Other studies have reported similar findings that nurses lack knowledge regarding the disclosure of medication administration errors ([Abdalla et al., 2020](#); [Ali et al., 2021](#); [Rutledge et al., 2018](#)). Such ambiguity about the reporting system and protocols appears to be a barrier to reporting errors ([Ali et al., 2021](#); [Dyab et al., 2018](#)). Therefore, nurses need to be aware of the error reporting system and educate themselves on reporting errors.

Another barrier to reporting was related to the lack of feedback. Because nurses do not receive input from the relevant personnel, they are not encouraged and tend to neglect to report medication administration errors. A study conducted by [Murphy and While \(2012\)](#) found that only 11% of errors were recorded because feedback to nurses was limited. Other studies have identified the absence or lack of

efficient feedback as an obstacle to reporting errors (Alblowi et al., 2021; Dyab et al., 2018; Rutledge et al., 2018). Providing input to nurses could highlight the importance and positive aspects of reporting, and nurses may derive valuable lessons from these errors to prevent their future recurrence. Murphy and While (2012) emphasized the importance of feedback, acknowledging the manager's supervisory responsibilities in addition to monitoring medication errors. This highlights a need for a system that provides nurses with appropriate feedback about reported errors, which could help prevent errors and give nurses more confidence in reporting them. Such a system is essential for ensuring the quality of care and patients' safety.

Limitation of the Study

Although the study was confined to a certain location in Saudi Arabia, data were collected from three hospitals located within this geographical area. The generalizability of the findings from this study was limited, and further research must be undertaken to thoroughly investigate this topic. However, the study applied a rigorous methodology through in-depth interviews to obtain comprehensive knowledge about the barriers. This approach enhanced the robustness of the study's results.

Implications of the Study

The study's results may alert nurse managers and nurses to be aware of the causes of the errors, enabling them to avoid them and work together to promote their reporting. The results can also be used to develop appropriate protocols for drug administration and enhance safety education. In addition, the healthcare institutions in this study and similar ones can review and adjust their policies and procedures accordingly. Nurses should be educated about medication administration and able to assess their knowledge and skills. Such education should ensure that nurses check the accuracy and completeness of medication orders and practice medication administration within the policies and procedures related to medication administration. In addition, nurse managers and those responsible for patient safety should implement a support system for reporting errors that nurses are knowledgeable, aware of, and compliant with, and they should ensure that nurses have no hesitation in or fear of reporting errors. Such a system should also provide appropriate feedback to the nurses. Vogus and Sutcliffe (2011) found that the integration of organizational safety, leadership (specifically, confidence in managers), and the care pathway design had a positive impact on the reporting of medication errors.

Ensuring error prevention necessitates the establishment of transparent communication channels and the active participation of all hospital staff. Promoting the reporting of errors relies on using information from reported occurrences to prevent errors and resolve them prior to their occurrences. This necessitates transitioning towards a culture prioritizing safety rather than assigning blame and fostering guilt. Organizational leaders should prioritize strategies to proactively mitigate errors and foster a supportive environment rather than assigning blame to individuals responsible for errors. This approach can encourage staff to report errors without any reluctance or apprehension.

Conclusion

This study showed that order deficiencies, high workloads, staff shortages, and malpractice were causes of medication administration errors. Furthermore, the study highlighted that the fear of punishment and not being supported, lack of knowledge and awareness about reporting, and lack of feedback were identified as barriers to reporting the errors. Hence, this research highlights the need to educate nurses on medication administration and boost their understanding of the necessity of reporting medication errors. This is crucial for promoting safety in the healthcare setting and enhancing the quality of patient care. The study also highlights a need for a workplace culture that supports error reporting and does not blame nurses for reporting errors; this would encourage them to report errors, contributing to patient safety.

Declaration of Conflicting Interest

The author declared no conflict of interest.

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Authors' Contributions

The corresponding author solely developed this study.

Authors' Biographies

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Data Availability

The dataset generated during and analyzed during the current study is available from the corresponding author upon reasonable request.

Declaration of Use of AI in Scientific Writing

The authors have declared that no generative AI was used in writing.

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