Pharmacists 'Experiences with Medication Error Reporting Systems: Examining Attitudes, Experiences, and Challenges in Hospitals.

Naif H. Helman[1], Badr I. Alrufaiq[2], Ahmed G. Alsahli[3]

Pharmacist
Health affairs at the ministry of National Guard

Abstract:
This qualitative study explores pharmacists' perspectives on medication error reporting systems in hospital settings. Semi-structured interviews were conducted with 15 pharmacists to investigate their experiences, challenges, and perceptions regarding error reporting processes. Findings reveal several themes, including the importance of reporting systems, barriers to reporting, strategies for improvement, and the impact on patient safety. Pharmacists emphasize the need for user-friendly systems, supportive organizational cultures, and enhanced training to facilitate effective error reporting. The study highlights opportunities for healthcare organizations to strengthen medication safety practices through improved reporting systems and collaborative efforts among healthcare professionals.

Keywords: Medication error reporting, pharmacists, qualitative study, patient safety, organizational culture

Introduction

Medication errors pose significant risks to patient safety and are a persistent challenge within healthcare systems worldwide (WHO, 2017). Defined as "any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer", these errors can result from various factors including communication breakdowns, human factors, and system failures (Ferner et al., 2006).

In hospital settings, pharmacists play a pivotal role in medication safety, responsible for dispensing medications, monitoring therapy, and preventing errors through vigilant oversight and collaboration with healthcare teams. Central to their efforts are medication error reporting systems, which are designed to capture, analyze, and learn from errors to prevent their recurrence (Ferner et al., 2006).

Despite the critical importance of these reporting systems, studies indicate significant underreporting of medication errors among healthcare professionals, including pharmacists (Schwappach & Wernli, 2010). Barriers to reporting include fear of blame, lack of time, concerns about repercussions, and perceived complexities of reporting processes (Sari et al., 2007). Such underreporting hinders efforts to improve patient safety and diminishes the effectiveness of error prevention strategies implemented within hospitals.

Understanding pharmacists' attitudes, experiences, and challenges with medication error reporting systems is essential for enhancing reporting rates and implementing effective prevention measures. This qualitative study aims to explore pharmacists' perspectives on medication error reporting systems in hospital settings, examining their experiences with identifying and reporting errors, the barriers they face, and their suggestions for improving medication safety protocols.

Literature Review

Medication errors represent a significant challenge to patient safety in healthcare settings, contributing to adverse events and increased healthcare costs (WHO, 2017). These errors encompass a range of incidents from prescribing to administration, with potential consequences ranging from minor inconveniences to severe harm or even death . Pharmacists, as medication experts, play a crucial role in mitigating these risks through their involvement in medication management and error prevention strategies (Walsh, 2019)

Importance of Medication Error Reporting Systems

Medication error reporting systems are fundamental tools for identifying and addressing errors in healthcare settings. These systems facilitate the collection of data on errors, providing insights into their causes and patterns (Mohanty, 2016). By reporting errors, healthcare professionals, including pharmacists, contribute to a culture of safety aimed at improving patient care and preventing future incidents (Walsh, 2019).

Pharmacists' Role in Medication Safety

Pharmacists are central to medication safety efforts, responsible for verifying prescriptions, counseling patients on proper medication use, and monitoring therapy outcomes (Mohanty, 2016). Their expertise in pharmacotherapy positions them uniquely to identify potential errors and implement preventive measures (Walsh, 2019).
Pharmacists' proactive involvement in medication safety not only enhances patient outcomes but also supports healthcare organizations in achieving regulatory compliance and quality improvement goals (WHO, 2017).

Barriers to Medication Error Reporting

Despite the benefits of medication error reporting systems, underreporting remains a prevalent issue among healthcare professionals, including pharmacists (Schwappach & Wernli, 2010). Barriers to reporting include fear of repercussions, concerns about blame, perceived time constraints, and complexities of reporting processes (Sari et al., 2007). These barriers contribute to a lack of comprehensive data on medication errors and limit opportunities for organizational learning and improvement (Mohanty, 2016).

Enhancing Medication Error Reporting Systems

Efforts to enhance medication error reporting systems focus on addressing barriers to reporting and improving the usability and effectiveness of reporting mechanisms (WHO, 2017). Strategies include fostering a non-punitive reporting culture, providing feedback to reporters, streamlining reporting processes, and integrating reporting systems with electronic health records (Mohanty, 2016).

This literature review underscores the critical role of pharmacists in medication error prevention and the importance of effective medication error reporting systems in improving patient safety. Understanding pharmacists' experiences with these systems is essential for enhancing reporting rates and implementing strategies to mitigate medication errors in hospitals.

Methodology

Study Design

This qualitative study employed a phenomenological approach to explore pharmacists' experiences with medication error reporting systems in hospital settings. Phenomenology was chosen to provide a deep understanding of pharmacists' lived experiences and perceptions regarding the reporting of medication errors.

Participant Selection

Participants were recruited using purposive sampling, aiming to include pharmacists with diverse backgrounds and experiences in medication error reporting. Inclusion criteria required participants to be licensed pharmacists actively working in hospital settings where medication error reporting systems were utilized.

Data Collection

Data were collected through semi-structured interviews conducted face-to-face or via video conferencing, based on participant preference and logistical feasibility. An interview guide was developed to explore pharmacists' attitudes towards reporting systems, experiences with identifying and reporting errors, perceived barriers, and suggestions for improvement.

Data Analysis

Interviews were audio-recorded and transcribed verbatim. Thematic analysis was employed to identify patterns, themes, and sub-themes related to pharmacists' experiences with medication error reporting systems. This process involved coding the transcripts, grouping similar codes into themes, and refining themes through iterative review and discussion among the research team.

Ethical Considerations

Ethical approval was obtained from the ethics committee. Participants provided informed consent prior to participation and were assured of confidentiality and anonymity throughout the study. Pseudonyms were used in transcripts and publications to protect participants' identities.

Rigor and Trustworthiness

To ensure rigor and trustworthiness, the study employed strategies such as member checking, where participants were invited to review summaries of their interviews to validate findings, and peer debriefing among the research team to discuss interpretations and reduce bias.

Findings

Theme 1: Perceptions of Medication Error Reporting Systems

Sub-theme 1.1: Importance of Reporting Systems
Participants acknowledged the critical role of medication error reporting systems in enhancing patient safety. One pharmacist noted, "Reporting errors is crucial for learning and improving our practices."

Sub-theme 1.2: Challenges with Current Systems
Several participants expressed frustration with the current reporting systems, citing issues such as complexity and time-consuming processes. A participant commented, "The reporting system interface is outdated and not user-friendly."

Theme 2: Experiences with Identifying and Reporting Errors

Sub-theme 2.1: Barriers to Reporting
Participants highlighted various barriers to reporting, including fear of blame and concerns about repercussions. One pharmacist shared, "There's a fear of being seen as incompetent if you report too many errors."

Sub-theme 2.2: Strategies for Improvement
Pharmacists proposed several strategies to improve reporting, such as streamlining the reporting process and providing anonymous reporting options. A participant suggested, "Anonymous reporting could encourage more staff to report errors without fear."

Theme 3: Impact on Patient Safety and Care

Sub-theme 3.1: Learning from Errors
Participants emphasized the importance of learning from reported errors to prevent future incidents. A pharmacist mentioned, "Each reported error should be seen as an opportunity to improve our practices and prevent harm to patients."

Sub-theme 3.2: Role in Improving Medication Safety
Pharmacists felt a sense of responsibility in ensuring medication safety and believed that effective reporting systems could significantly contribute to this goal. One participant stated, "As pharmacists, we are the last line of defense. Reporting errors is part of our commitment to patient safety."

Theme 4: Organizational Culture and Support

Sub-theme 4.1: Organizational Priorities
Participants discussed the influence of organizational culture on medication error reporting. Some pharmacists perceived a lack of prioritization of medication safety within their organizations. A participant noted, "There's pressure to meet targets and deadlines, sometimes at the expense of safety."

Sub-theme 4.2: Support for Reporting
Pharmacists also highlighted the importance of organizational support in promoting error reporting. Supportive environments that encourage open communication and learning from mistakes were seen as critical. A pharmacist mentioned, "Having managers who value safety and support reporting efforts makes a big difference."

Theme 5: Education and Training Needs

Sub-theme 5.1: Training on Reporting Procedures
Participants expressed a need for more comprehensive training on how to effectively use reporting systems. Some pharmacists felt that initial training on reporting procedures was insufficient. A participant shared, "I didn't receive much training on how to navigate the reporting system when I first started."

Sub-theme 5.2: Continuous Education
Pharmacists emphasized the importance of ongoing education to stay updated on reporting guidelines and best practices. Continuous professional development opportunities were seen as crucial for improving reporting accuracy and efficiency. A pharmacist stated, "Regular workshops or updates on reporting requirements would help us feel more confident in our reporting."

Theme 6: Collaboration and Communication

Sub-theme 6.1: Interprofessional Collaboration
Participants discussed the role of collaboration with other healthcare professionals in error reporting and prevention. Effective communication channels between pharmacists, physicians, and nurses were highlighted as essential for timely and accurate reporting. A pharmacist noted, "Collaboration with nurses and doctors is key to understanding the full context of errors and implementing preventive measures."

Sub-theme 6.2: Feedback Loop

Pharmacists emphasized the importance of receiving feedback on reported errors. Timely feedback helps reinforce reporting behaviors and allows for corrective actions to be implemented promptly. A participant mentioned, "Feedback on reported errors is crucial for learning and improving our processes."

Discussion

Overview of Findings

This qualitative study explored pharmacists' perspectives on medication error reporting systems within hospital settings. The findings revealed several key themes, including the importance of reporting systems, challenges with current practices, strategies for improvement, organizational culture and support, education and training needs, and collaboration and communication among healthcare professionals.

Comparison with Existing Literature

The findings of this study align with previous research indicating that medication error reporting systems are crucial for identifying and mitigating risks to patient safety (WHO, 2017). Pharmacists in this study emphasized the role of reporting systems in promoting a culture of safety and continuous quality improvement (Mohanty, 2016). However, consistent with existing literature, participants also identified barriers such as fear of blame, time constraints, and deficiencies in reporting processes (Schwappach & Wernli, 2010; Sari et al., 2007).

Implications for Practice

The identified themes have significant implications for pharmacy practice and healthcare organizations. Enhancing medication error reporting systems to be more user-friendly and supportive of a non-punitive reporting culture could encourage more pharmacists to report errors without fear of reprisal. Strategies such as anonymous reporting options and streamlined reporting procedures were suggested by participants and supported by literature as effective approaches to improving reporting rates (Walsh, 2019).

Educational Needs and Continuous Improvement

Participants highlighted the need for enhanced education and training on reporting procedures and systems. This aligns with previous research advocating for continuous professional development to ensure pharmacists are equipped with the knowledge and skills necessary for effective error reporting and prevention (Mohanty, 2016). Healthcare organizations should invest in regular training sessions and workshops focused on error reporting to foster a culture of safety and accountability among pharmacy staff.

Organizational Support and Collaboration

Organizational factors, including leadership support and interprofessional collaboration, were critical in influencing pharmacists' experiences with reporting systems. Participants emphasized the importance of supportive leadership and collaborative efforts with physicians, nurses, and other healthcare professionals in improving reporting practices and patient safety outcomes (WHO, 2017).

Limitations and Future Research

Despite valuable insights gained from this study, several limitations should be acknowledged. The study's sample size and recruitment from specific hospital settings may limit generalizability to other pharmacy contexts. Future research could explore the long-term impacts of improved reporting systems on medication safety outcomes and patient care quality in diverse healthcare settings.

Conclusion

In conclusion, this study provides valuable insights into pharmacists' experiences with medication error reporting systems, highlighting both challenges and opportunities for improvement. Addressing barriers, enhancing education and training, fostering organizational support, and promoting interprofessional collaboration are essential steps towards creating safer healthcare environments.

References

- Ferner, R. E., & Aronson, J. K. (2006). Clarification of terminology in medication errors: definitions and classification. Drug safety, 29, 1011-1022.

- Mohanty, S. (2016). Awareness of medication error, medication management and prevention among staff nurses in IMS &Sum Hospital, Odisha. Journal of Health and Allied Sciences NU, 6(04), 18-22.

- Schwappach, D. L., & Wernli, M. (2010). Am I (un) safe here? Chemotherapy patients' perspectives towards engaging in their safety. Quality and Safety in Health Care, 19(5), e9-e9.

- Sari, A. B. A., Sheldon, T. A., Cracknell, A., & Turnbull, A. (2007). Sensitivity of routine system for reporting patient safety incidents in an NHS hospital: retrospective patient case note review. Bmj, 334(7584), 79.

- Walsh, E. K. (2019). Medication error at the primary secondary care interface: Costs, causes, consequences.

- World Health Organization (WHO). (2017). *Medication Errors: Technical Series on Safer Primary Care*. Retrieved from https://www.who.int/medicines/publications/technical-series-safer-primary-care-medication-errors/en/

Appendix: Semi-Structured Interview Questions

1. Can you describe your role and responsibilities related to medication error reporting in your current practice?

2. What are your perceptions of the current medication error reporting system in terms of ease of use and effectiveness?

3. Could you share a recent experience where you identified a medication error? What were the circumstances, and how did you proceed with reporting it?

4. What factors, if any, influence your decision to report a medication error? Can you describe any barriers you encounter in the reporting process?

5. How do you think the current medication error reporting system could be improved to better support pharmacists' reporting efforts?

6. How does your organization prioritize medication safety, and what role do you see medication error reporting playing in this context?

7. What type of feedback, if any, do you receive after reporting a medication error? How does this feedback impact your future reporting behaviors?

8. In your opinion, what are the key challenges healthcare organizations face in fostering a culture of open communication and learning from medication errors?

9. How do you perceive the support provided by your colleagues and supervisors regarding medication error reporting? Can you provide examples?

10. What training or educational opportunities have you received related to medication error reporting? How effective do you find these in preparing you for reporting errors?

11. Can you describe any changes in your approach to medication safety and error reporting over your career? What factors have influenced these changes?

12. How do you collaborate with other healthcare professionals (e.g., nurses, physicians) in the context of medication error reporting and prevention?