



ROLES, RESPONSIBILITIES AND FUNCTIONS OF PHARMACY TECHNICIANS. A SCOPING REVIEW

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Abstract

Pharmacy technicians play a crucial role in the healthcare system, supporting pharmacists in the preparation, dispensing, and management of medications. With a diverse range of tasks and responsibilities, they contribute to the efficiency of pharmacy operations and the safe delivery of pharmaceutical care. This article aims to explore the roles, responsibilities, and functions of pharmacy technicians, examining their scope of practice, the skills required, and their impact on patient care. Through a detailed review of their duties, the article highlights the evolving nature of the pharmacy technician's role in both community and hospital settings, with emphasis on regulatory considerations, professional standards, and emerging trends in the profession.



Keywords- Pharmacists, Healthcare, Pharmacy technician

Introduction

Pharmacy technicians are integral members of the healthcare team, assisting pharmacists in various capacities to ensure the safe and effective use of medications. The scope of their role has expanded over the years due to advancements in the pharmaceutical field, increasing demands for patient care, and greater recognition of the value that pharmacy technicians bring to patient safety and operational efficiency [1]. While the primary focus of pharmacy technicians remains the preparation and dispensing of medications, their responsibilities are multifaceted, extending to medication counseling, inventory management, administrative tasks, and clinical support [2].

Aim

This research article will examine the core functions of pharmacy technicians, the responsibilities they uphold in different practice settings, and the critical skills required for effective practice. The article will also explore the broader impact of pharmacy technicians on patient outcomes and healthcare systems.

Materials and Method

A comprehensive search of literature was carried out using databases such as Scopus, Pubmed, Web of Science and Embase. A total of 873 articles were retrieved out of which 14 articles were appropriately related to the subject.

Discussion

The broadening of pharmacy technician responsibilities in both health systems and community pharmacies has gained significant momentum in recent years, although continues to be a contentious matter. Researchers and practitioners have explored methods to mitigate the pressures on pharmacists, including the delegation of new obligations to pharmacy technicians within their standard scope of practice. Certain states have permitted technicians to perform various advanced duties to assist pharmacists, whilst others have restricted the expansion of technician roles. Disparate task expansion has transpired even within identical states, where regulations are enforced solely for certified technicians [3,3] or in varying practice environments [5]

Roles and Responsibilities of Pharmacy Technicians

Pharmacy technicians are trained healthcare professionals who assist pharmacists in various tasks related to medication management and pharmacy operations. Their roles can vary depending on the specific practice setting, whether in a community pharmacy, hospital, or other healthcare environments. Below are the primary roles and responsibilities of pharmacy technicians [6].

Medication Preparation and Dispensing

One of the most essential duties of a pharmacy technician is the preparation and dispensing of medications. This includes:

- **Filling prescriptions:** Pharmacy technicians are responsible for accurately preparing prescriptions as per the instructions given by the prescribing healthcare provider. This involves counting, measuring, and labeling medications [7].
- **Medication verification:** Technicians assist in ensuring that prescribed medications are correct, checking for potential drug interactions, and verifying patient information [7].
- **Compounding medications:** In some settings, pharmacy technicians may compound medications that are not commercially available, ensuring the correct formulation of prescriptions for individual patients [7].

Inventory Management

Pharmacy technicians are responsible for maintaining and managing the inventory of medications and pharmaceutical supplies. This includes:

- **Ordering and stocking medications:** Ensuring that the pharmacy has a consistent supply of both over-the-counter (OTC) and prescription medications .
- **Expiration monitoring:** Monitoring the shelf life of medications and ensuring that expired drugs are removed from the inventory in a timely manner.
- **Inventory audits:** Conducting regular inventory checks and audits to ensure proper stock levels and to minimize errors related to medication shortages or overstocking [8].

Patient and Healthcare Provider Communication

Pharmacy technicians serve as a bridge between pharmacists, patients, and other healthcare providers. Their communication responsibilities include:

- **Providing medication information:** Technicians may answer patient inquiries about medications, such as dosage instructions, side effects, and storage requirements.
- **Transmitting prescriptions:** In many pharmacies, pharmacy technicians may be responsible for receiving and transmitting prescriptions between patients, healthcare providers, and insurance companies.
- **Handling medication therapy management (MTM):** In some cases, pharmacy technicians may assist with MTM by helping to review patients' medication regimens to identify potential issues such as drug interactions or non-compliance [9].

Administrative and Clerical Tasks

Pharmacy technicians are also involved in several administrative and clerical duties that support the overall functioning of the pharmacy. These tasks include:

- **Recordkeeping:** Maintaining accurate and up-to-date patient records, including medication histories and insurance information.
- **Billing and insurance claims:** Handling the billing of medications to insurance companies, verifying patient eligibility, and ensuring accurate reimbursement for services.
- **Managing pharmacy workflow:** Pharmacy technicians often help to optimize the workflow of the pharmacy, ensuring prescriptions are processed promptly and accurately [10].

Clinical Support and Direct Patient Care

In advanced practice settings, pharmacy technicians may also take on more clinical responsibilities, working closely with pharmacists and other healthcare providers to support patient care. Their clinical functions may include:

- **Medication review and reconciliation:** In hospital settings, technicians may assist with medication reconciliation, ensuring that patients' medication lists are accurate and up-to-date during transitions of care (e.g., from hospital to home).
- **Assist in clinical trials:** Pharmacy technicians may assist in the preparation and dispensing of medications involved in clinical research or trials.
- **Collaborating with interdisciplinary teams:** In some environments, pharmacy technicians collaborate with doctors, nurses, and other healthcare professionals to ensure optimal patient care and medication management [11].

Skills Required for Pharmacy Technicians

Pharmacy technicians are required to possess a specific set of skills to perform their duties effectively. These include:

- **Attention to detail:** Given the critical nature of their work, pharmacy technicians must be meticulous in ensuring the correct preparation and dispensing of medications.
- **Knowledge of pharmaceuticals:** A thorough understanding of drug names, dosages, routes of administration, and potential side effects is essential for technicians to perform their tasks safely.
- **Communication skills:** Pharmacy technicians must be able to communicate effectively with patients, pharmacists, healthcare providers, and colleagues. This includes both verbal and written communication.
- **Organization and time management:** Technicians often manage multiple tasks simultaneously, requiring excellent organizational skills to prioritize and complete tasks efficiently.
- **Technical proficiency:** Familiarity with pharmacy software, automated dispensing systems, and other pharmacy technologies is essential for modern pharmacy technicians [12].

Impact of Pharmacy Technicians on Healthcare

Pharmacy technicians have a direct impact on patient care and the overall efficiency of healthcare systems. Their contributions improve the safety, effectiveness, and quality of pharmaceutical services in the following ways:

1. **Increased Efficiency:** By taking on routine and administrative tasks, pharmacy technicians allow pharmacists to focus on more complex patient care functions, such as medication counseling and clinical decision-making.
2. **Patient Safety:** Pharmacy technicians help prevent medication errors through their attention to detail and involvement in medication verification and dispensing processes.
3. **Cost-Effectiveness:** Technicians contribute to reducing operational costs by improving workflow, reducing medication errors, and ensuring proper inventory management.

4. **Enhanced Patient Education:** Pharmacy technicians often serve as the first point of contact for patients in pharmacies, providing essential information about medication usage, side effects, and adherence [13].

Emerging Trends in Pharmacy Technicians' Roles

As healthcare continues to evolve, the roles of pharmacy technicians are expanding. Some emerging trends include:

- **Increased scope of practice:** In many regions, pharmacy technicians are taking on additional responsibilities, such as administering immunizations, performing health screenings, and participating in medication therapy management (MTM).
- **Integration with clinical teams:** In collaborative care models, pharmacy technicians are increasingly being integrated into interdisciplinary teams, contributing to patient-centered care and helping to manage chronic conditions.
- **Technological advancements:** The rise of automation and pharmacy technology is transforming the role of the pharmacy technician, enhancing medication management systems and improving accuracy [14].

Conclusion

Pharmacy technicians play an indispensable role in the healthcare system by ensuring that medications are prepared, dispensed, and managed accurately and safely. Their responsibilities extend beyond medication dispensing to include inventory management, patient communication, administrative duties, and clinical support. As healthcare systems evolve, pharmacy technicians will continue to assume more advanced roles and collaborate with pharmacists and other healthcare providers to enhance patient care. Ongoing education, training, and professional development are essential to ensure that pharmacy technicians are equipped to meet the challenges of an increasingly complex healthcare environment.

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