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Short Communication

Advancing Pharmacy Practice: Embracing New Frontiers for Better Patient Care

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Abstract

Pharmacy practice is witnessing a transformative era, with advancements in technology and an expanding scope of clinical roles for pharmacists. This article explores the current state of pharmacy practice and its impact on patient care. Pharmacists now engage in medication therapy management (MTM) services, leveraging technology for drug discovery and personalized care. Telepharmacy is emerging as a solution to improve access to pharmaceutical services in underserved areas, while pharmacists address the opioid epidemic through stewardship initiatives. These developments highlight the profession's commitment to patient-centered care and its crucial role in interdisciplinary healthcare teams. As pharmacy practice continues to evolve, embracing change and leveraging technological innovations, it ensures a brighter future for better patient outcomes and healthcare system efficiency.

Keywords: Pharmacy practice, Pharmacists, Medication therapy management, Technology, Telepharmacy

INTRODUCTION

Pharmacy practice stands at the forefront of healthcare, where pharmacists play an indispensable role in ensuring optimal patient care and safety through their expertise in medication management and counseling (Mi FL et al., 2002). Over the years, pharmacy practice has undergone significant transformations, adapting to the evolving needs of patients, advancements in medical science, and the integration of cutting-edge technologies. This dynamic evolution has led to expanded clinical roles for pharmacists, allowing them to contribute more profoundly to patient outcomes and collaborate effectively with other healthcare professionals. In this article, we delve into the current state of pharmacy practice, exploring the key trends and innovations that have shaped the profession's landscape (Chang RL et al., 1975). We will discuss how pharmacists have taken on a more proactive role in medication therapy management (MTM), employing technology to enhance efficiency and accuracy in dispensing medications and providing personalized care to patients (Patrick DM et al., 2004). Moreover, the rise of telepharmacy has opened up

new avenues to expand access to pharmaceutical services, especially in underserved or remote areas, bringing expert care to previously unreachable populations. As the opioid epidemic continues to pose a pressing public health challenge, pharmacists have stepped up their efforts in opioid stewardship, advocating for safer opioid use and actively participating in initiatives to combat misuse and abuse (Peterson LR 2005). Additionally, we will explore how technology-driven innovations such as artificial intelligence and machine learning have influenced pharmacy practice, from drug discovery to predicting medication interactions and optimizing dosages tailored to individual patient needs. By embracing these advancements, pharmacists are forging a path towards a patient-centered, efficient, and interconnected healthcare system (Li WC 2014). As we navigate the ever-changing landscape of healthcare, it is crucial to recognize the significance of pharmacy practice in promoting better patient outcomes and overall wellness. This article aims to shed light on the critical role of pharmacists and how they are poised to shape the future of pharmacy practice for the betterment of society (Ma QM et al., 1987).

DISCUSSION

Pharmacy practice is an integral part of the healthcare system, where pharmacists play a crucial role in ensuring optimal patient outcomes through their expertise in medication management, patient counseling, and collaboration with other healthcare professionals (Langford BJ et al., 2016). Over the years, pharmacy practice has evolved significantly, adapting to the changing needs of patients and advancements in medical science and technology (Holden MG et al., 2016). In this article, we will explore the key trends and innovations shaping pharmacy practice, and how these developments are contributing to better patient care.

Expanded clinical roles of pharmacists

Traditionally, pharmacists were primarily responsible for dispensing medications and providing basic medication counseling. However, as healthcare systems recognize the value of pharmacists in patient care, their roles have expanded (Cicek H et al., 1995). Pharmacists are now actively involved in medication therapy management, conducting medication reviews, and collaborating with physicians to optimize treatment plans. These expanded clinical roles have not only improved patient outcomes but also reduced healthcare costs by preventing medication-related complications and promoting adherence to treatment regimens.

Integration of technology in pharmacy practice

The digital revolution has significantly impacted pharmacy practice, enabling pharmacists to enhance efficiency, accuracy, and patient safety. Electronic health records (EHRs) and computerized physician order entry (CPOE) systems have streamlined medication orders and reduced prescription errors. Furthermore, technology-driven medication management platforms and mobile applications have empowered patients to manage their medications more effectively, fostering better medication adherence (Takakura Y et al., 1990). Artificial intelligence and machine learning have also found their way into pharmacy practice. These technologies aid in drug discovery, predicting medication interactions, and optimizing medication dosages based on individual patient characteristics. Pharmacists are increasingly leveraging these advancements to provide personalized care and evidence-based recommendations.

Medication therapy management (MTM) services

Medication therapy management (MTM) services have emerged as an essential aspect of modern pharmacy practice. MTM involves a comprehensive review of a patient's medications by a pharmacist to identify potential issues, such as drug interactions, duplications, or non-adherence. Pharmacists collaborate with patients and healthcare providers to develop personalized care plans, leading to improved therapeutic outcomes and patient satisfaction.

MTM services have proven particularly beneficial for patients with chronic conditions, as they often have complex medication regimens. By optimizing medication therapy, pharmacists can enhance patient quality of life and reduce hospitalizations related to medication mismanagement.

Embracing telepharmacy

Telepharmacy is gaining traction as a viable solution to improve access to pharmaceutical services in remote or underserved areas. Through telepharmacy, pharmacists can remotely verify prescriptions, counsel patients, and conduct medication reviews. This innovation ensures that patients in rural areas have timely access to expert pharmaceutical care and medication supplies. Moreover, telepharmacy has proved invaluable during public health crises like the COVID-19 pandemic. It reduces physical contact and enables pharmacists to support patients and address their concerns through virtual consultations.

Addressing the opioid epidemic

The opioid epidemic remains a pressing public health concern worldwide. Pharmacists are uniquely positioned to combat this crisis by implementing strategies to promote safe opioid use, monitor prescription patterns, and identify potential cases of opioid misuse or abuse. By engaging in opioid stewardship initiatives and educating patients and healthcare providers, pharmacists are actively contributing to curbing opioid-related harms.

CONCLUSION

The evolution of pharmacy practice is paving the way for a new era of patient-centered and technologically-driven healthcare. Pharmacists are no longer confined to the traditional role of medication dispensers; they have emerged as key players in improving patient care, medication management, and treatment outcomes. Through the implementation of medication therapy management (MTM) services and the integration of technology, pharmacists are providing personalized care that addresses individual patient needs and promotes medication adherence. Telepharmacy has extended the reach of pharmaceutical services, ensuring that patients in remote or underserved areas receive the expert care they deserve. This advancement, along with the collaborative efforts of pharmacists within interdisciplinary healthcare teams, has the potential to revolutionize access to healthcare and bridge existing gaps in healthcare delivery. Furthermore, pharmacists are actively combating the opioid epidemic through opioid stewardship initiatives and education, demonstrating their commitment to patient safety and public health. By taking a proactive stance in opioid management, pharmacists are playing a critical role in curbing opioid-related harm and promoting safer opioid use. The amalgamation of technology, including artificial intelligence and machine learning, into pharmacy practice has revolutionized drug discovery, medication management, and patient care. These technological

tools empower pharmacists to make evidence-based decisions, optimize drug regimens, and predict medication interactions accurately. As pharmacy practice continues to evolve, it is evident that pharmacists will remain at the forefront of patient care, working hand in hand with other healthcare professionals to deliver comprehensive and seamless healthcare services. Embracing change, adapting to technological advancements, and staying committed to their mission of improving patient health will be essential for pharmacists as they navigate the challenges and opportunities of the future. In conclusion, pharmacy practice stands at the cusp of a transformative journey, where pharmacists are catalysts for positive change and advocates for better patient outcomes. The ever-expanding scope of their clinical roles, the integration of technology, and a steadfast commitment to patient care underscore the vital role of pharmacists in shaping the future of healthcare for the betterment of society as a whole.

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