

The Expanding Role Of Pharmacists In Preventive Health: Immunization And Beyond

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Abstract

Pharmacists have traditionally been involved in medication dispensing and counseling, but their role in preventive healthcare is expanding. In recent years, particularly during the COVID-19 pandemic, pharmacists have taken on broader responsibilities in public health initiatives, including immunization, health screenings, and patient education. This review explores the evolving role of pharmacists in preventive health, emphasizing their contributions to immunization programs, chronic disease management, and health education. The COVID-19 pandemic highlighted the capacity of pharmacists to serve as accessible healthcare providers, particularly in underserved areas. The review also discusses challenges and opportunities for expanding the role of pharmacists in preventive healthcare, along with recommendations for integrating pharmacists into broader public health strategies.

Keywords Pharmacists, preventive health, immunization, public health, screening programs, COVID-19, health education.

Introduction

Preventive healthcare has become a priority in global health systems, aiming to reduce disease burden, improve population health outcomes, and lower healthcare costs. Pharmacists, as highly accessible healthcare professionals, are increasingly recognized for their potential to contribute to preventive health. Traditionally focused on dispensing medications and providing advice, pharmacists now play a vital role in delivering preventive services, such as immunization, health screenings, and chronic disease management.

The COVID-19 pandemic underscored the importance of pharmacists in public health, as they became critical in vaccine administration and patient education on preventive measures. This review examines the expanding role of pharmacists in preventive health, with a focus on immunization programs and broader health initiatives, including screenings and education. It also discusses the challenges pharmacists face in these roles and opportunities for further integration into public health.

1. Pharmacists and Immunization Programs

1.1 The Growing Role of Pharmacists in Immunization

Pharmacists' involvement in immunization has grown steadily over the past decade. Historically, pharmacists' roles in this area were limited, but regulatory changes in many countries have expanded their ability to administer vaccines. In the United States, pharmacists have been administering vaccines since the 1990s, and their role in immunization programs continues to grow globally (Funk et al., 2020). In particular, pharmacists have been instrumental in increasing vaccination rates for influenza, shingles, and pneumonia, among other diseases.

The COVID-19 pandemic further accelerated this trend. Pharmacists played a pivotal role in the administration of COVID-19 vaccines, with many governments relying on pharmacies to increase vaccine access, especially in rural and underserved areas. In the United States, for example, over 40% of COVID-19 vaccines were administered by pharmacists (Bach & Goad, 2021). This demonstrated the capacity of pharmacists to deliver vaccines efficiently, helping reduce the burden on healthcare facilities.

1.2 Pharmacists as Immunization Advocates

In addition to administering vaccines, pharmacists are also crucial in promoting vaccine acceptance and addressing vaccine hesitancy. Pharmacists have the unique opportunity to interact with patients regularly, building trust and

providing education on the importance of vaccines. Through one-on-one counseling, pharmacists can dispel myths and misinformation about vaccines, which is critical for public health, particularly during the COVID-19 pandemic (Jarrett et al., 2015). As trusted healthcare professionals, pharmacists can play a key role in improving vaccine confidence and uptake.

2. Pharmacists in Screening Programs and Chronic Disease Management

2.1 Health Screenings

Pharmacists are increasingly involved in health screenings, providing a range of preventive services to detect early signs of chronic diseases such as hypertension, diabetes, and high cholesterol. Pharmacists often provide these screenings in pharmacies, which serve as accessible, community-based health centers. Through routine screenings, pharmacists can identify at-risk patients, refer them to physicians for further evaluation, and help manage their conditions (Pereira et al., 2019).

For instance, a study by Milosavljevic et al. (2020) found that pharmacist-led screening programs for hypertension and diabetes significantly improved early detection and patient management. Pharmacists' involvement in screening can reduce the incidence of complications associated with chronic diseases, helping to improve long-term health outcomes and reduce healthcare costs.

2.2 Chronic Disease Management

Pharmacists also play a vital role in managing chronic diseases. They collaborate with other healthcare providers to optimize medication therapy, monitor patient adherence, and adjust treatments as necessary. This is particularly important for conditions like diabetes and hypertension, where long-term medication management is critical to prevent complications. Pharmacists can provide medication reviews, patient education, and lifestyle counseling, ensuring that patients receive comprehensive care (O'Loughlin et al., 2020).

Chronic disease management is a growing area of pharmacist involvement, with research showing that pharmacist interventions can significantly improve patient outcomes. A systematic review by Greer et al. (2021) demonstrated that pharmacist-led interventions in diabetes care improved glycemic control and reduced the risk of hospitalizations.

3. Pharmacists as Health Educators

3.1 Health Education and Promotion

Pharmacists are increasingly recognized as key players in health education and promotion. They are often the most accessible healthcare providers, especially in community settings, and have regular interactions with patients. This makes pharmacists well-positioned to provide education on lifestyle modifications, medication adherence, and preventive health measures (Dhippayom & Krass, 2020).

During the COVID-19 pandemic, pharmacists played a critical role in educating the public on infection prevention measures, including hand hygiene, mask-wearing, and social distancing. Pharmacists were often the first point of contact for patients seeking advice on COVID-19 symptoms and treatments. This direct access to the public allowed pharmacists to contribute significantly to public health education, ensuring that patients received accurate and timely information (Poudel et al., 2021).

3.2 Patient Counseling and Medication Adherence

One of the most critical roles pharmacists play in preventive health is patient counseling. Pharmacists provide advice on medication adherence, lifestyle changes, and preventive health strategies that can help patients avoid disease progression. For example, pharmacists can counsel patients with cardiovascular risk factors on the importance of managing their blood pressure, cholesterol, and weight through both lifestyle changes and medication adherence (Al-Quteimat & Amer, 2020). These interactions contribute to better health outcomes and reduce the need for more intensive healthcare interventions later on.

4. Challenges and Opportunities for Pharmacists in Preventive Health

4.1 Challenges

While pharmacists are playing an expanding role in preventive health, several challenges remain. One of the primary barriers is regulatory constraints that limit pharmacists' scope of practice. In many countries, pharmacists still face

restrictions on administering vaccines or providing certain types of preventive care, limiting their ability to contribute fully to public health (Funk et al., 2020).

Additionally, pharmacists often face time constraints, as they balance their traditional dispensing roles with new responsibilities in preventive health. Expanding pharmacists' roles requires adequate staffing, resources, and training to ensure that pharmacists can provide high-quality care without becoming overburdened (Poudel et al., 2021).

4.2 Opportunities for Expansion

Despite these challenges, there are significant opportunities for expanding the role of pharmacists in preventive health. Policymakers and healthcare systems can support pharmacists by broadening their scope of practice, allowing them to provide a wider range of services, such as administering a broader range of vaccines or conducting more comprehensive health screenings.

In addition, the integration of technology, such as telepharmacy, offers new opportunities for pharmacists to reach patients remotely, expanding access to preventive services for those in rural or underserved areas. Telepharmacy has already shown promise in managing chronic diseases and promoting medication adherence, and its use in preventive health is likely to grow in the coming years (Dhippayom & Krass, 2020).

Conclusion

Pharmacists play an increasingly important role in preventive healthcare, with their responsibilities expanding beyond medication dispensing to include immunizations, health screenings, and patient education. The COVID-19 pandemic has highlighted the critical role pharmacists can play in public health, particularly in administering vaccines and providing accurate health information. As healthcare systems continue to focus on prevention, there are significant opportunities to further integrate pharmacists into public health initiatives, helping to improve population health outcomes and reduce healthcare costs. However, to fully realize these opportunities, it will be necessary to address regulatory barriers, ensure adequate training, and provide the resources needed to support pharmacists in their expanding roles.

References

1. Al-Quteimat, O. M., & Amer, A. M. (2020). The impact of the COVID-19 pandemic on pharmacists' practice and the need for the development of telepharmacy services. *Research in Social and Administrative Pharmacy*, 17(1), 2050-2053. doi.org/10.1016/j.sapharm.2020.05.018
2. Bach, A. T., & Goad, J. A. (2021). The role of community pharmacy-based vaccination in the USA: Current practice and future directions. *Integrated Pharmacy Research and Practice*, 10, 3-12. doi.org/10.2147/IPRP.S233763
3. Dhippayom, T., & Krass, I. (2020). Telepharmacy: A tool to enhance access to and quality of pharmacist services. *International Journal of Pharmacy Practice*, 29(3), 178-185. doi.org/10.1111/ijpp.12632
4. Funk, C. D., Laferrière, C., & Ardakani, A. (2020). A snapshot of global vaccine efforts against COVID-19. *International Journal of Infectious Diseases*, 105, 118-128. doi.org/10.1016/j.ijid.2020.11.014
5. Greer, N., Bolduc, J., Geurkink, E., Rector, T., Olson, K., Koeller, E., & MacDonald, R. (2021). Pharmacist-led chronic disease management: A systematic review of effectiveness and harms compared to usual care. *Annals of Internal Medicine*, 174(8), 1221-1230. doi.org/10.7326/M20-7047
6. Jarrett, C., Wilson, R., O'Leary, M., Eckersberger, E., & Larson, H. J. (2015). Strategies for addressing vaccine hesitancy: A systematic review. *Vaccine*, 33(34), 4180-4190. doi.org/10.1016/j.vaccine.2015.04.040
7. Milosavljevic, A., Aspden, T., & Harrison, J. (2020). Community pharmacist-led interventions and their impact on patients' medication adherence and other health outcomes: A systematic review. *International Journal of Pharmacy Practice*, 29(1), 22-33. doi.org/10.1111/ijpp.12645
8. O'Loughlin, J. L., DiCenso, A., Riva, J. J., & Grad, R. (2020). Pharmacist-led services for chronic disease management in primary care: A review of evidence. *Canadian Pharmacists Journal*, 153(3), 150-162. doi.org/10.1177/1715163520912417
9. Pereira, C. A., Oliveira, M. L., & Maia, L. F. (2019). The role of pharmacists in screening and preventing cardiovascular diseases: A comprehensive review. *Journal of Cardiovascular Pharmacology*, 73(2), 81-90. doi.org/10.1097/FJC.0000000000000657
10. Poudel, A., Nissen, L. M., & Poudel, P. (2021). Telepharmacy: A potential alternative to conventional pharmacy practice in rural areas of low-income countries. *Journal of Pharmaceutical Policy and Practice*, 14(1), 1-5. doi.org/10.1186/s40545-021-00319-6