

## The Role of Pharmacists in Strengthening the Health System in Nigeria

Habeebullah Oladipo, BPharm; Abdulbasit Muili, PharmD; Yusuf Rashidat, PharmD; Abdulmalik Rokibat, PharmD  
Faculty of Pharmaceutical Sciences, University of Ilorin, Ilorin, Nigeria

### Abstract

The role of Pharmacists in healthcare has changed significantly over the previous half-century, from dispensing to providing direct patient-oriented services unrelated to dispensing. As a result, the pharmacy profession offers unique expertise to members of the profession with a distinct set of abilities that enable them to play a variety of roles in developing the Nigerian health system. Pharmacy and community pharmacists play an important role in the public health system by providing prescription and over-the-counter (OTC) medication with professional counseling, participating in health care programs, and maintaining contact with other healthcare professionals in the health care system. In addition to being open to the public, pharmacists are responsible for the safe and effective administration of pharmaceuticals, participate in health screening and monitoring programs, and are responsive to the requirements and preferences of patients. Unfortunately, there are fewer studies on the roles that pharmacists play in improving the Nigerian health system. As a result, this study highlights some of the roles pharmacists play in strengthening the health system of Nigeria.

**Keywords:** Pharmacy, Nigeria, Pharmacist, Health system, Community Pharmacy, Hospital pharmacy

### Introduction

Pharmacy, since its origin, has expanded in scope and complexity, encompassing all aspects of healthcare.<sup>1</sup> Throughout history, the role of the pharmacist has evolved, and today's modern pharmacists play a critical role in assuring the efficacy and safety of medical products in use.<sup>2</sup> It is astonishing that the pharmacy profession is still seen through a skewed lens that ignores the present scope of pharmacy practice variety and breadth.<sup>2</sup> Pharmacists are generally stereotyped as medicine producers, pill pushers, and bottle labelers, managers and entrepreneurs rather than medication experts caring for patients.<sup>2</sup> However, a typical day of a community pharmacist entails addressing concerns about drug side effects, therapeutic alternatives to drugs, evaluating patient drug histories, and giving recommendations for over-the-counter medications.<sup>2</sup> On the other hand, the hospital pharmacist responsibilities include delivering drug information, medication management, medicine preparation and supply, patient counseling, and the design of pharmaceutical care plans.<sup>2</sup> Pharmacy practice has evolved from its conventional duty of distributing medicines to a more patient- and outcome-oriented paradigm, implying that pharmacists now provide their patients with more than just drugs.<sup>2-3</sup>

These additional pharmacy services allow pharmacists the chance to assess a patient's overall health and improve pharmaceutical care and outcomes, such as reduced healthcare costs and improved clinical and psychological outcomes.<sup>3</sup> This is especially important in countries like Nigeria, where most patients pay for their drugs out of their own pockets and thus need to feel like they obtained good value.<sup>3</sup> The global healthcare system is undergoing a major transition due to the coronavirus disease outbreak in 2019 (COVID-19), and pharmacists are playing a key part in this transition since they can take on greater responsibilities in providing healthcare services to their patients.<sup>2</sup> Due to the large number of people who use pharmacies and the fact that it is the first point for minor ailments and drug and health advice, pharmacies are considered the most accessible healthcare facilities.<sup>2-3</sup>

### History of Pharmacy in the Nigerian Health System

Pharmacy has a long history in Nigeria, as it does worldwide. Traditional healers have a wealth of medical expertise and contribute to improving the health system.<sup>4</sup> Mr. Zaccheus Bailey founded a medicine shop along Balogun Street, Lagos state in 1887 to offer pharmaceuticals to the general population, marking the beginning of the pharmacy profession in the community.<sup>5</sup> Later on, experienced dispensers were given the authority to teach others about distributing pharmaceuticals, resulting in an increase in the number of dispensers who could provide prescription and health care services to the general public.<sup>5</sup> The first hospital pharmacy positions were established in the early 1900s when there were four hospitals located in Abeokuta (Ogun state), Lagos, Asaba (Delta state), and Calabar (Cross-River state).<sup>6</sup> All of them employ the same method of operation, and the first dispensers were those in charge of distributing medications to patients in the hospital, and their activities were closely monitored by the medical doctor in

**Corresponding author:** Habeebullah Oladipo, BPharm  
Faculty of Pharmaceutical Sciences  
University of Ilorin  
Ilorin, Nigeria  
Email: [oladipohabeebullah@gmail.com](mailto:oladipohabeebullah@gmail.com)

charge of the department in question.<sup>5</sup> Finally, industrial pharmacy practice in Nigeria began in 1944 with the founding of May and Baker, and in 1960, they were engaged in large-scale medication manufacturing.<sup>4</sup> Over the years, numerous pharmaceutical companies have been founded in Nigeria. They have ensured the efficient manufacture of pharmaceuticals that aid in the prevention and treatment of various health problems, and the provision of drugs that improve the quality of life.<sup>7</sup>

### Health Care Delivery System in Nigeria

The Nigerian healthcare delivery system is pluralistic (orthodox and traditional healthcare delivery systems).<sup>16</sup> Orthodox healthcare is a branch of western science that consists of hospitals, clinics, and primary health centers. It is provided by both the private and public sectors.<sup>8</sup> Just as Nigeria has a three-tiered administration, the country likewise has a three-tiered health system. These are the primary, secondary and tertiary health systems; they also reflect the three levels of government in Nigeria, namely federal, state, and local, and the three tiers of government superiorly manage them.<sup>9, 10</sup> These health care systems are known to perform various functions in Nigeria. Primary healthcare refers to the primary point of contact between individuals and their families, and it includes services such as immunization, disease prevention, and treatment of common illnesses and accidents. The professional could be a primary health care physician, pharmacist, or nurse. Secondary health care involves the use of a specialist to provide health care, such as a psychiatrist, neurologist, ophthalmologist, dermatologist, or cardiologist.<sup>11</sup> Finally, the tertiary health care system refers to highly specialized care<sup>12</sup> involving dialysis, neurosurgery, cardiac surgery, transplant services, and advanced surgical and medical intervention using highly developed medical care equipment.

However, these services are hampered by an underdeveloped health care system. An underdeveloped health care system lacks the necessary facilities, such as health centers, health workers, and medical equipment to function properly, and this can be caused by insufficient financial resources and system maintenance. Welcome revealed that the Nigerian health system is underdeveloped as a result of political instability, corruption, bad leaders, fund embezzlement, and an unpredictable economy.<sup>8</sup> The Nigerian health care system has been plagued by underfunding, with the limited funds allocated to health care delivery being primarily embezzled<sup>13</sup> and not channeled effectively when compared to countries such as the United States, United Kingdom, and South Africa that invest hugely in their health care systems. Under Act 35 of the 1999 constitution, a national health insurance program was formed to promote the health of Nigerians at an affordable cost and to ensure financial access to high-quality health care for all Nigerians.<sup>14</sup> Even with the initiative, the report indicates that the health care system of Nigeria remains underdeveloped, as the recent World Health Organization survey places Nigeria's health care system as the fourth-worst in the world.<sup>15</sup> Some

indices that have led to this ranking include a shortage of medical specialists, mass migration abroad of Nigerian health workers due to poor conditions of service, and lack of adequate and proper pharmaceutical care which has shown to be the major cause of the Nigerian low health index.<sup>30</sup>

### Integral Roles that Pharmacists play in Strengthening the Health System

The role of the pharmacist has evolved significantly over the previous few decades, from dispensing to more direct patient care, administrative tasks, and public health functions.<sup>27</sup> Pharmaceutical care aims to provide responsible and conscientious drug therapy within an integrated health system to achieve optimal medication outcomes and increase patient satisfaction, thereby improving patients' quality of life.<sup>16</sup> This signifies that pharmacist play an inestimable role in the health care system.

Pharmaceutical care services in hospitals promote optimal medicine utilization, cost-effective prescribing, and medication safety.<sup>17</sup> By optimizing therapy, promoting rational prescribing, lowering inappropriate medicine usage, and preventing medication-related harms, improved hospital pharmacy activities have contributed to improved patient outcomes.<sup>18</sup> Several pharmacist-led strategies have been devised to improve medicine utilization in hospitals and assist with appropriate medicine usage in hospitalized patients; these programs frequently entail interdisciplinary teamwork and often include pharmacists with postgraduate training.<sup>19</sup> Clinical pharmaceutical services, on the other hand, are limited in many developing countries,<sup>20</sup> owing to a lack of clinical pharmacist-led activities in these countries' hospitals. The reasons for this are complex, but they may reflect the emerging nature of the pharmacy profession in these countries, as well as professional isolation and a lack of recognition of clinical pharmacy's role in the health care system.<sup>21</sup> Nigeria has established clinical pharmacy programs in response to the hospital need for pharmaceutical care.<sup>22</sup> The introduction of the Pharm D program has helped immensely in enlisting more clinically oriented pharmacists into the health system by working with the physician in delivering safe and quality medications to people to achieve better health for all. Pharmacists in developing countries, including Nigeria, play a critical role in pharmaceutical procurement, putting them in a unique position to ensure that the most cost-effective drugs are purchased in the most appropriate quantities from reputable suppliers and delivered where and when they are needed; while promoting rational drug use by providing appropriate advice, pharmacists are able to reduce purchases of unnecessary and expensive drugs.<sup>23</sup>

The Pharmacists in the community play essential roles in health care as they are the initial point of contact, and they tend to patients seeking assistance on common health concerns.<sup>24</sup> They also provide self-management guidance for minor diseases and referral to other health care providers.<sup>25</sup> Likewise,

pharmacists may be the patient's last point of contact before commencing any treatment, so they play an important role in checking for drug allergies, reinforcing messages about proper medication use, ensuring adequate monitoring, providing guidance on adverse drug effects and drug interactions, and improving medication adherence.<sup>26</sup> Community pharmacists play an important role in optimizing medicine usage in the community to help achieve quality medicine use.<sup>27</sup> More so, the increased rate of immunization has a positive effect on public health as a result of the assessed patient by pharmacists in the community.<sup>27</sup>

Industrial pharmacists also contribute significantly to the health system by performing critical roles in the monitoring, producing, and manufacturing of medical products at various stages.<sup>29</sup> Fatalities due to medication errors are now ranked third after cancer and heart disease in developed countries with standard health care services such as the United States.<sup>36</sup> In Nigeria, laws guiding drug handling are often neglected and this might lead to drug therapy problems being ranked higher than cancer and heart diseases.<sup>30</sup> Pharmacists are the only health care professionals trained to excel in knowledge of drug action and offer of pharmaceutical care.<sup>30</sup> Therefore, the government needs to ensure that pharmacists are fully incorporated and involved in the provision of pharmaceutical care services in the health system.

Evidence gotten from countries such as South Africa indicated that pharmacist-led care interventions were highly effective in long-term disease prevention, medication therapy management, and improvement in drug-related patient outcomes.<sup>31-33</sup> There were also lower potentials for medication errors and non-adherence to long term disease therapies when pharmaceutical care services were provided by pharmacists which further emphasize the roles pharmacist play in strengthening a nation's health care system.<sup>31, 34, 35</sup> Pharmacists would continue to play an important role in strengthening the health care system. As a result, advanced training for pharmacists should be reviewed to achieve the greatest level of health care in Nigeria.

### Conclusion

Pharmacists are among the most accessible health care providers, and their roles have expanded to include a wide range of services for individual and community health. Due to their uniqueness and versatility, they handle every health-related issue in society. The functions of pharmacists are presently underutilized, and their potential roles in patient care can be seen as a missed opportunity to improve the health system of Nigeria. Over the years, evidence has shown that the roles of pharmacists are beyond the counter and build the strongest health care system. All the various fields in pharmacy have a great impact on the health system, thereby improving health care across the nation.

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