

# The Impact of Hospital Pharmacists on Health Outcomes in Ghana: Changing the Narrative Through Implementation Studies

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## ABSTRACT

Three major events have occurred in the journey of pharmacy practice over the last decade. The establishment of the Ghana College of Pharmacists, together with the introduction of a Doctor of Pharmacy degree in lieu of the Bachelor of Pharmacy Degree and a review of the job description for public sector health pharmacists are all key events that need to be noted for their significance. To build on these developments, clinical pharmacists must start demonstrating the value and impact of their services on health outcomes through implementation studies. The Pharmaceutical Society of Ghana may consider this as part of its advocacy drive.

**Keywords:** *Pharmacy, implementation studies, Ghana, PSGH*

## INTRODUCTION

The training and practice of pharmacists in the country has undergone a remarkable evolution within the past few years. This paper throws light on these developments and discusses how pharmacists can demonstrate their value through operational research which focuses on the evaluation of the impact and value of their clinical services.

### Establishment of the Ghana College of Pharmacists

Three notable events have characterized the journey of the profession within the last decade. First is the establishment of the Ghana College of Pharmacists (GCPharm) per the provisions of Act 833 to ensure the postgraduate training of pharmacists with specialized skills and knowledge (Act 833 Ghana, 2011). The college was set up to promote specialist training in pharmacy and related disciplines and to contribute to the formulation of policies on sound health, medicines and public health general.

### Doctor of Pharmacy degree

Secondly, the advent of the doctor of pharmacy (PharmD) degree at the undergraduate level of pharmacy training has not only seismically improved the clinical knowledge and skills of pharmacy graduates (Baidoo, 2016), but has also bolstered the confidence of holders of such certificates. Eras predating the production of PharmD graduates arguably were associated with pharmacists whose knowledge were heavy on the basic science of medicines and drugs, in addition to their development and production. Those were the days where pharmacy students at Ghana's premier pharmacy school, Kwame Nkrumah University of Science and

Technology's Faculty of Pharmacy and Pharmaceutical Sciences, went through a rite of passage at the first year of the pharmacy program: rote learning of the indications and dosages of medicines under a withering discipline dubbed "Posology". Even though the now defunct bachelor of pharmacy (B.Pharm) gave room for some clinical internships, the current system is much more fortified with hands-on clinical training and experiential learning, including a one year compulsory house job in clinical settings. This allows pharmacy students to apply the basic knowledge acquired during their training at the bedside of patients—of course under the tutelage of clinical pharmacists, even before they become fully fledged licensed practitioners.

### **New job description for pharmacists**

The third major event which occurred in the profession is the extensive review of the job description of public sector hospital pharmacists in 2019 (GHS, 2019). As part of the motley of strategies mooted to aid in ending the continuous agitations by members of the Government and Hospital Pharmacists Association (GHOSPA) against their placement on the then newly developed public sector salary structure (Single Spine Salary Structure) (GHOSPA, 2016), the Pharmaceutical Society of Ghana (PSGH) initiated calculated steps that led to the birth of a new scheme of service for pharmacists working with the government. The job description (JD) which was developed under the auspices of the PSGH was particularly aimed at not only addressing the single spine fracas but was also intended to fill a major gap hampering the professional development, growth and practice influence of pharmacists working in government hospitals. Before the JD, the division of labor among pharmacists in such facilities as well as the distinctive roles of clinical pharmacists had been shrouded in a cloud of vagueness. The development and approval of the JD helped to expand career diversity and opportunities for professional growth.

### **Focusing on implementation studies**

To think that these aforementioned events which occasioned the evolutionary trajectory of pharmacy practice in this recent decade all occurred by virtue of mere happenstance is to slight the concerted efforts of pharmacy leaders of those times whose vision has led to this new age. The burden of duty to build on these successes to greater heights by the current constellation of pharmacy practitioners and leaders is apparent. One major uncharted path bothers on how clinical pharmacists in Ghana (hospital- and community-based) can demonstrably stake their claim to improved health outcomes in their field of practice.

Do hospital pharmacists in Ghana have an impact on hypertension management? Can hospital pharmacists in Ghana reduce readmission rates of disease conditions such as heart failure, asthma, etc.? Are hospital pharmacists in Ghana contributing to reducing health care expenditures? Can one find empirical evidence in the literature to help one answer these and similar questions? Indeed, the literature is replete with positive answers to these questions elsewhere (Schumacher et al, 2018). Unfortunately, it cannot be assumed that similar answers can be found here in Ghana since it is trite knowledge that research findings are useful in addressing a particular question only to the extent and conditions under which they were carried out. In other words, the fact that hospital pharmacists in the United States of America (US) can reduce 30-day heart failure readmission rates does not automatically suggest that clinical pharmacists in Ghana have done same. The effect of the Ghanaian pharmacist's impact on

metrics of health outcomes can only be demonstrated and etched in the body of literature through empirical evidence gathered through the mill of implementation studies.

The body of knowledge demonstrating the impact of pharmaceutical care being provided by hospital pharmacists in Ghana on health outcomes is severely limited. Much of the research carried out by pharmacists in Ghana are observational as opposed to being experimental. One underlying reason could be due to the resource-intensive nature of carrying out such studies. Against this backdrop, a clarion call is being made on stakeholders to step up to the plate and offer the needed resources. The leadership of the PSGH for instance, can help clinically inclined pharmacists change the narrative by bankrolling studies evaluating the impact of pharmacists on health outcomes in Ghana.

It is only through a collection of such ironclad evidence that policy makers and indeed writers of guidelines can accord the required recognition to the cognitive roles and services offered by pharmacists. For example, the American College of Cardiologists/American Heart Association/Heart Failure Society of America Guideline for the Management of Heart Failure 2022 on account of the findings from high quality implementation studies asserts that “Patients with HF (Heart Failure) should receive care from multidisciplinary teams...” comprising of “...cardiologists, nurses, and pharmacists who specialize in HF” due to the complex nature of the disease (Heidenreich et al, 2022). The writing committee of this guideline, as well as any other guideline which accords deference to the positive impact of pharmacists’ cognitive services on the management of any disease condition, can make such bold pronouncements only on the grounds of irrefutable evidence documenting the obvious.

## **CONCLUSION**

Pharmacy practice in Ghana is still on an evolutionary course. The story detailing the full potential of the impact of pharmacists in Ghana on healthcare outcomes is yet to be fully written. To take active control of how the plot unfolds, clinical pharmacists in the country must start carrying out implementation studies evaluating the effect of their clinical services on patient outcomes.

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