



Attaining Excellence in Professional Pharmacy Practice-Pharmacists in Academia Must Take the Lead

D. E. Effiong^{1*} and Mfonobong Alozie²

¹*Pharmaceutics and Pharmaceutical Technology, University of Uyo, Nigeria.*

²*Pharmaceutical Microbiology, University of Uyo, Nigeria.*

Authors' contributions

This work was carried out in collaboration between both authors. Author DEE designed the work, wrote the protocol, managed literature search and wrote the first draft of the manuscript. Author MA proofread the draft and edited the draft manuscript. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JSRR/2021/v27i130348

Editor(s):

(1) Dr. Tzasna Hernandez Delgado, Universidad Nacional Autónoma de México, México.

(2) Professor Luigi Giacomo Rodino, Università di Torino, Italy.

Reviewers

(1) Brunilda Myftari, University of Medicine Tirana (UMT), Albania.

(2) Renata Prado Bereta Vilela, FACERES, Brazil.

(3) Emilia Vitória da Silva, Universidade de Brasília, Brazil.

(4) Priscila Orlandini, Universidade Estadual de Campinas (UNICAMP), Brazil.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/63801>

Commentary

Received 01 November 2020

Accepted 04 January 2021

Published 03 March 2021

ABSTRACT

As societal needs change, so are professions adjusting and adapting their services to meet this new normal. The essence is not just to remain relevant, but to live up to their professional expectation and be impactful to their environment. In the constantly changing societal healthcare needs, Pharmacists as medicine experts and frontline contributors towards health care delivery, have crucial roles to play. From sound medical information dissemination to drug manufacture; from dispensing and therapeutic drug control to research and development and from sustaining supply chain of products to provision of total pharmaceutical care, pharmacists stand tall to provide needed healthcare services. Rendering services with professionalism is the desired path. But what does it take to attain professionalism in pharmacy practice? How can pharmacists in the academia harness their potentials to promote the path of service delivery with professional excellence? This

*Corresponding author: E-mail: edaniel430@gmail.com;

piece showcases the role of excellence in the pharmacy profession highlighting the potentials of members in the academia in spearheading excellence in practice, thereby adding to the professional outlook of the pharmacist.

Keywords: Academia; pharmacists; profession; excellence, pharmacy practice; leadership.

1. INTRODUCTION

Excellence is the hallmark of professions and professionals! From teaching to surveying, medicine to architecture and from piloting a plane to being an accountant, excellence is the expectation. Will anyone ever desire a service short of excellence or imagine its pronounced absence? In the pharmacy profession, excellence or its absence can directly mean success or failure, patronage or lack of it and, more importantly, could result in life or death. But what really is professional excellence? How is this demonstrated in the pharmacy profession? How can Academic pharmacists contribute to this highly esteemed quality of service? This commentary, originally submitted as an essay at the August 2020 conference of the National Association of Pharmacists in Academia in Nsukka, Nigeria, attempts at answering these necessary questions.

When an employment requires specialized training, education and skill with intensive academic preparation, the term profession describes it. That description, coined from the Merriam-Webster dictionary's entry of the term profession, reveals that, like other disciplines such as engineering or law, pharmacy profession demands such specialized training and its practitioners are conferred some special privileges and recognition [1]. Privileges of access to patients' confidential health information, therapeutic interventions sometimes with unlicensed medicines, manufacture of extemporaneous preparations and applying discretion in managing some medical conditions. Excellence in the pharmacy profession is then the understandable expectation.

Although attempts made by several authors at describing excellence are readily seen through a quick online search, in its basic sense, professional excellence is quality service delivery or performance. In the words of Peter and Austin, 1985, slightly modified, 'it is when purpose and proficiency meet with sustained insightful practical action' [2]. To zero-in on the subject matter, the pharmacist is not described as professionally excellent simply by a singular

outstanding act of care that may be exotic or galactic, dramatic or even traumatic [2]. Rather, a holistic appraisal of his several distinctive activities, attitudes and skills displayed over time is considered. His professional excellence is also not a function of his status or position in an organisation even though excellence can rapidly propel him to enviable status in such organization or the rungs of the career ladder. Thus, professional excellence is attainable by every pharmacist, notwithstanding the sphere of practice, gender, rank, years of practice or the location. It must be mentioned that the use of the masculine pronoun in this write-up is in the generic form and in no way is it an attempt or a suggestion for gender bias.

Professional excellence requires hard work, perseverance even in the face of stiff resistance, sound imagination even under the pressure of day-to-day routine, display of innovations in practice and goes beyond routine performance of the common day-to-day duties in-line with the guidelines of national and regional pharmaceutical regulatory bodies neither be mere dutifully sticking to the letters in such guidelines. Regulatory bodies such as the Pharmacists council of Nigeria (PCN), the General Pharmaceutical Council (GPhC) of the United Kingdom and the Accreditation Council for Pharmacy Education (ACPE) of the United States define attitudes, practice ethics and skills expected of pharmacists even in the face of conflicting legal issues or competing priorities [3,4]. Although in some countries like Nigeria, some regulatory standards are seen to be inadequate for regulating the practice in the face of peculiar realities, generally the principles, among other things, emphasize that pharmacists practice within the codes of ethics. To do so, they are to employ professional judgement, avoid any act of omission or commission that can impair confidence, provide to each patient relevant drug information, and speak up or prevent it when things go wrong that may be detrimental to the health of patients [3-5].

In the light of this, professional excellence will mean discretionary application of the regulatory principles to provide pharmaceutical care as

necessary in each peculiar case. To do so will require that the practitioners are well abreast with these regulatory principles and boundaries and develop the skills needed to apply them with seamless proficiency of an expert. A conscious strive for excellence by a conscientious and determined pharmacist should not be misconstrued as an obsession with duties, a show of irrationality, an inordinate ambition or trying at becoming a workaholic. It should rather be seen as the sound decision to live up to codes of professional ethics, rendering quality service as expected from members of the profession.

The pharmacist's role being central to healthcare delivery irrespective of his sphere of engagement (community, academic, military, and hospital), requires excellence as a standard and its absence will be, not just dangerously obvious, but consequentially disastrous. Academic pharmacists, harnessing their full potential, can champion the course of professional excellence and see it ripple to other spheres of the practice.

Pharmacists in the academia are full time faculty members of tertiary educational institutions and colleges of pharmacy. Their duties and responsibilities cover teaching student pharmacists, conducting scientific research, administrative activities, supervising research and teaching graduate students, speaking and/or publishing in scientific conferences, journals and books, student mentoring through practice and presentation of research findings at conferences and workshops. Pharmacists in the academia are specialists. Their specialty is in no way a function of departments or units where they hold positions or work, but reflects their respective training and focus of research over the years with tangible impactful outcome.

A career in academic pharmacy is thus not a confinement to the laboratory or classroom. In reality, it can stretch across clinical practice, social, and administrative sciences. For example, academic pharmacists as senior members of the faculty in a university (professors, readers or senior lecturers) may serve in management positions of the institutions or government agencies, carrying out administrative functions. They could be engaged as consultants for hospitals, academic publishing organisations or manufacturing industries. Junior members in the academia such as assistant lecturers, lecturer II and lecturer I focus more on the academic responsibilities but may still practice in community pharmacies. The rise in the career

ranks by these in junior positions to senior academics are a reflection of professional excellence in performing their duties.

By virtue of his sphere of operation, the academic pharmacist is in a strategic point with many opportunities to influence other areas of practice positively. Thus, on harnessing their potentials to the full, academic pharmacists can play significant roles in achieving professional excellence.

2. POTENTIALS OF THE ACADEMIC PHARMACISTS AND THEIR APPLICATION

2.1 Academic Pharmacists Are Transforming Agents as Teachers and Trainers

Academic pharmacists are transforming agents as teachers and trainers of new and practising pharmacists. To function in any area of pharmacy practice, acquisition of requisite knowledge and skills, through training, is not just fundamental but is a necessity, before certification by the Pharmacy regulators [3,4,5]. True, intellectual capacity of the students is built in the schools, however, merely graduating from the pharmacy school does not confer professionalism. The needed skills, attitudes, carriage, charisma and ethics to complement acquired knowledge, so as to function professionally, are brought to the attention of new generation of pharmacists as they are being trained, transformed (in professional character and orientation) and churned out yearly from schools and colleges of pharmacy. Here reveals the available opportunities for academic pharmacists to instil up-to-date and pragmatic concept of professional service delivery in these aspiring members of the profession to meet accelerated societal needs and competencies of the century.

This training which, usually, lasts for a period of 4-6years depending on the part of the world, the mode of entry and the degree type awarded, could assist young pharmacists specialize on formation of effective healthcare teams as competent change agents for the profession. In living up to this role as trainers, pharmacists in academia apply, as strictly as reasonable, the high standards expected of pharmacy schools and colleges as set out by the regulatory bodies on pharmacy education. This will ensure screening out those seen as unsuitable to

practice the profession so that these training ground do not turn out to be the proverbial broad way, mentioned in the holy book, that allows every Tom, Dick and Harry a passage way and leads to producing incompetent and unqualified graduates [6]. The high quality of training when imbibed translates to proficiency of new, well rounded generation of pharmacists practising at the peak of quality service delivery. Academic pharmacists, as sound members of staff, fulfil these roles to ensure professional excellence.

2.2 As Mentors, Academic Pharmacists Ensure Professional Excellence

The first mentors for pharmacists in training are their teachers. Academic pharmacists at the senior ranks of the universities are, indeed, role models for the younger colleagues (whom they may be supervising in postgraduate studies) as well as pharmacy students. Pharmacists in training see their lecturers as accomplished in their chosen career and can follow the principles and attitudes showcased by these mentors to succeed even if they do not have affinity for the academia. Academics in the pharmacy faculty have their areas of specialty and subspecialty. For example, one in the area of pharmacology might have a sub-specialty of cardiovascular pharmacology or the pharmacologists could specialize in drug formulation, delivery or nanotechnology. These mentors show by example and encourage their students to sub specialize to become more relevant and impactful in their practice, functioning as a sought-after dexterous professional with excellence.

Skills and attitudes in time management and prioritizing, honesty and integrity, effective communication, determination and resilience, critical thinking and imagination leading to innovation, and the ability to work well with others even under pressure, are readily discerned by any observant mentee. Postgraduate students, who in many cases, may also be junior colleagues in the faculty, see these attributes of their role model first hand and could influence the type of senior academics these would become and by extension the future pharmacists in the academia. Thus the heightened role of academic pharmacists, as role models, calls for their display of zenith of professional code of conduct that younger colleagues can look up to in developing attitudes, success philosophy and code of ethics.

2.3 Academic Pharmacists Are in the Front Line in Charting the Professional Path

The focus of any profession is highly influenced by evidence-based research results. The human society being very dynamic is constantly plagued with ever changing healthcare challenges requiring fine-tuning existing practice models or initiating new service deliveries to meet current needs. Academic pharmacists as professionals in the forefront of the pharmacy education and practice carry out research, documenting new findings, that give indication as to the new and improved ways and paths for better patient engagement with evidence based better health outcomes. Findings, on how a particular quality service improves health care indices, are being continuously doled out at seminars, scientific conferences and workshops where practising pharmacists attend and are brought up-to-speed with these new ways of rendering improved quality service with better outcomes. Other pharmacists, such as those in the regulatory sector (national and regional regulatory bodies overseeing pharmacy education) could enshrine such necessary skills and knowledge in the curriculum of study of pharmacy schools, as well as continuous pharmacy education and codes of ethics requirements for practising pharmacists.

Worthy of mention too is that, as teachers of these innovations in approaches and updated curriculum, academic pharmacists influence the quality of service rendered by the pharmacist. Their discoveries gradually shape the outlook of the practice of the future pharmacists.

For instance, in recent times, the call for pharmacists to advance toward patient care was borne out of such several works reporting the improved health outcome obtainable when pharmacists add to their conventional product delivery, patient care [7]. Also the inclusion of the supply chain management in recent times to the curriculum of undergraduate students in pharmacy in Nigeria has received a warm welcome. A survey of practice settings in hospitals, communities and international non-governmental organizations (NGOs) shows that supply chain was a necessary skill for the functionality of the new pharmacists [8]. Hence undergraduate student's exposure in this area. These are newer concepts that has enhanced quality delivery and professional status of pharmacy. Academic pharmacists take the lead in such evidence-based research and training to

shape the course of progression of the profession ensuring excellence in practise in a rapidly changing dynamic world.

2.4 Academic Pharmacists As Consultants, Collaborators and Advisors to Governments and Its Agencies

The specialized training of professionals and the privileged information they have at their disposal makes them to be sought after when important decisions and policies are to be made by governmental authorities (at the local, state, or national) or their agencies. The in-depth and continuously updated knowledge of academic pharmacists through research and training places them in the vantage position to offer practical insights and information that government agencies and institutions will need when taking certain decisions, formulating policies or handling complicated situations requiring sound healthcare solutions.

In developed countries of the United States and the United Kingdom, pharmacists in the academia double as consultants in hospitals and community practice, bringing in-depth insight to solving potential or actual errors in medication use in complex medical condition in those healthcare organisations. These affords them the opportunity to convert their wealth of experience in research and knowledge to overcoming complicated medical cases with better health outcomes. In Nigeria, such extension in practice is gradually taking shape too. Regulatory agents of government in different countries saddled with overseeing safety of drug products and diseases (such as the Food and Drug Authority (FDA), the national association of the food drug administration and control (NAFDAC), the centre for disease control, (CDC), and the National Health scheme (NHS) could consult pharmacists in the academia and seek updated information on simple, but effective, drug assay or methods and giving certain guidelines.

Health ministries and regulatory bodies for pharmacy education (e.g., Pharmacists Council of Nigeria PCN) see academic pharmacists as resource persons to consult as they prepare to draft policies on drug-related and health matters, drug use, distribution, sales and even production. The avenue for consultations affords the academic figures to display professional excellence, giving out, not just theoretical responses on guidelines, but sound, reasonable

and workable scientific advice. It must be mentioned, however, that to be consulted when taking far reaching decision on health related matters and on drug-related policies, pharmacists in the academia will be proactive, making practical contributions to knowledge and societal development via research. Research findings are disseminated through seminars, workshops, journals, and conferences. This is more effective when the academia work as a functional body.

2.5 Public Enlightenment, Health Awareness Campaigns and Advocacy

Borchardt and Francis in their article on professional excellence in the journal, Australian Academic and Research Libraries [9] had submitted that excellence requires not just a superior performance but also must be widely observed. Or how else will one be described as being professional if no one or at best, only very few are aware of his consistent super quality performance? Truth be told, good performance not observed may not be acknowledge or recognised. While this is in no way a stimulation for becoming trumpet blowers or becoming obsessed with self-advertisement and wanting to be noticed, much good is achieved when people know of one's competence, achievements and are aware of his quality and professional character.

The truthfulness of this is readily seen in the public opinion held in many developing climes where the pharmacist is less recognised as important in health care delivery. Even in some developed nations, the narrative is not so different. For example in the United Kingdom, as reported in the Pharmaceutical journal of January 2020 [10], in a recent television show This morning, a guest on the programme had erroneously described pharmacists as pretend doctors. Such description and similar other less-than-accurate notion of the pharmacist despite their hard work, relevance and proficiency paints a grotesque image of the profession and can be corrected. Public enlightenment and advocacy are useful tools to effect such change. Pharmacists in the academia are very qualified for such roles. Through talk shows where they are invited as resource persons, government functions where they make comments as eminent guests and other media related avenues where they can be heard, they can mention what they and their colleagues in different practice settings are accomplishing and how these add to

national development and health outcomes. They can even be proactive, employing their potentials in organizing television or radio series in a widely-viewed or listened-to program to showcase their worth in knowledge and versatility, relevance and focus of research.

Also being fully involved in health awareness campaigns about health conditions can be a plus in correcting the anomaly of misconstrued public notions. Such campaigns are the norm in recent times and are usually promoted and supported by international organizations such as the World Health Organization (WHO). During such campaigns, preventive measures to curb or reduce incidence and prevalence of the health conditions are made known to members of the public. These are opportunities available for spreading the frontiers in professional excellence in pharmacy. Pharmacists in the academia can and should be proactive in this areas of public enlightenment, health awareness campaigns and advocacy, educating the general public on health conditions, how the pharmacists (irrespective of their sphere of practice) is helping and can be an incredible resource to them, entertaining interviews by media professionals, air health campaign programmes on radio. The professional presence of these high profile persons (academic pharmacists) instils confidence in the public who in turn give deserved recognition to pharmacy profession. Pharmacists in the academia will also give boost in re-writing the story line about the pharmacist professional image as they get involved in advocacy within their universities and are outstanding in how they handle appointment positions in the university system.

2.6 Academic Pharmacists Take the Lead in Purposeful, Problem-Solving Research and Collaboration with Industry for the Manufacture of Innovative Medicines

Excellence is also a function of how the immediate environment and the larger society is affected positively by a professional's sets of actions. This is not with the exception of academic pharmacist as they give invaluable input to drug manufacture, evaluation and use, resulting from their problem-solving oriented research. The Covid-19 pandemic has thrown open this area of impact that academic pharmacists can leverage on and stamp their relevance in supplying excellence. Drug-related researches cover the areas of developing

standardized pharmaceutical excipients from available local sources, discovering and developing new drug candidates to contain the increasing diseases plaguing mankind or repurposing already approved medicines for application to other indication. Other areas include formulating improved delivery systems using smart excipients together with advanced delivery strategies, producing new formulations of an existing medicine in the market to overcome observed deficiencies and drug therapy monitoring or supply chain management.

The Professor Wannang-led research team (team lead being an academic pharmacist) of Plateau state, Professor Izuchukwu research teams and the Professor Iwu led research teams in Nigeria, have shown capacity in the face of impending global health challenge of corona virus in providing purposeful research that is showing promising results in stemming the rising tide of the corona infection as they apply documented drug candidates from herbal remedy and molecular docking [11-13]. Other research teams are currently working with any development soon to be made known. Newly improved medicines or moiety that help to overcome the challenges of existing marketed products are also explored and warmly received by practitioners and patients alike. A large percent of innovative dosage forms are offshoots from laboratory researches usually designed and executed by pharmacists in the academia. Such innovation confers a high regard to the pharmacy profession, being seen as meeting the changing needs of the society. The introduction of the sustained release micro-beads, soft-gel delivery and multi-pellet system techniques, the improved dissolution of the liquid-solid delivery of poorly soluble drugs and the use of oral film technology to present immediate release dosage forms as trendy packs, are all product techniques hatched in the laboratory of academic research.

Problem solving researches by academic pharmacists translates to industrial manufacture of innovative medicine that are aesthetically appealing, have lesser side effects, better bioavailability, stable or specific site targeting. Such innovations improve collaboration with production pharmacists in the industries. These breakthroughs have constantly had beneficial effect on the wider society. The synergy between the manufacturing industries and academia is strengthened, patients' medication adherence is improved, quality health outcome in a shorter

time is seen, higher recommendations, by practitioners, for innovative medicines and the regard for the pharmacy profession continues to be intact. As improved presentation of conventional dosage forms using new technologies are churned out, professional excellence in the industrial pharmacy practice becomes evident and such excellence will not be divorced from the important contributions of academic pharmacists with resultant heightened public perception of the pharmacist practising with excellence.

3. CONCLUSION

In conclusion, it is evident that for pharmacists in the academia, many opportunities abound for show of professional excellence and these must be harnessed fully. As healthcare needs in a dynamic society rapidly change even at exponential rates, the need for pharmacists with professional excellence will continue to grow. From training of new generation pharmacists, to serving as mentors; from consulting for health institutions to influencing government policies on healthcare; from focusing on problem-solving researches to health campaigns and advocacy, pharmacists in the academia can take conscious efforts towards excellence which can be visible. The drive is not just for awards or recognition, even though these can be good motivation to show professional work in the society [14]. For a fact, professional excellence should not stop at just being an expectation for pharmacists, it is not just a state reached once in a long while as if spikes in an analytical spectrum. No, it is not and should not be like a temporary achievable concept left to move in a vicious circle in the neuronal circuitry of the nervous system! Rather professional excellence is an attainable and sustained quality of service governing all facets of pharmacy practice. All pharmacists must carry out their responsibilities with ethical standards, integrity, humility, dexterity and proficiency as they gradually gravitate towards professional excellence irrespective of age, gender or skin colour. Yes, towards achieving and sustaining professional excellence, academic pharmacists, as trail blazers, must continually take the lead!

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Profession, entry in Meriam-Webster Dictionary; 2020. Available:<https://www.merriam-webster.com/dictionary/profession>
2. Peter T and Austin N. A passion for excellence: The leadership difference. New York: Random House, Fontana/Collins, London; 1985.
3. Standards for pharmacy professionals, A General Pharmaceutical Council Publication; 2017. Available:www.pharmacyregulation.org [last accessed November 21, 2020]
4. Oseni YO. Evaluation of pharmacy practice regulations in Nigeria: The pharmaceutical inspectors' perspective. *Tropical Journal of Pharmaceutical Research*. 2019; 18(6):1353-1360.
5. Professional Ethics Commission, Accredited Council for Pharmacy Education (ACPE)Manuals(the "Commission" or PEC). Available:<https://www.manula.com/manuals/acpe/ac>.
6. Mathew 7:13,14 The new world translation of the Holy Scripture. Watchtower Bible and Tract Society of New York, Inc. New York USA; 2013.
7. Eric G. Boyce the pharmacists' patient care process and more. *Am J Pharm Educ*. 2017;81(4):62. DOI: 10.5688/ajpe81462
8. Otuto Amarauche Chukwu, Valentine Nnaemeka Ezeanochikwa, Benedict Ejikeme Eya. Supply chain management of health commodities for reducing global disease burden. *Res Social Adm Pharm*. 2017;13(4):871-874. DOI:10.1016/j.sapharm.2016.08.008. Epub 2016 Sep 12.
9. Borchardt DH and Francis RD. Professional Excellence. *Australian Academic and Research Libraries*. 2013;22(2):117-125. DOI:org/10.1080/00048623.1991.10754725
10. Fatema Mamdani. Pharmacists are anything but 'pretend doctors'. *The Pharmaceutical Journal*; 2020. Available:<https://www.pharmaceutical-journal.com/news-and-analysis/opinion/blogs/pharmacists-are-anything-but-pretend-doctors/20207606.blog>

11. Patrick Iwelunmor. Why research is vital for breakthrough in drug development—prof. Wannang. *Pharmanews*;2020. Available:<https://www.pharmanewsonline.com/>
12. Chukwuma Muanya. Interview-besides COVID 19, our drug stopped dengue fever says Iwu. *The Guardian*; 2020. Available: <https://guardian.ng/interview>
13. Chukwuma Muanya. UNIZIK don not dismissed over COVID-19 cure claim, says VC. *The Guardian*; 2020. Available:<https://guardian.ng/news>
14. Glen J Pearson. *Canada Journal of Hospital Pharm.* 2017;70(1):92. Published online 2017 Feb 28. DOI:10.4212/cjhp.v70i1.1636

© 2021 *Effiong and Alozie*; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/63801>