Viewpoint: Physician as a Clinician, Researcher, and Academician

*Mary Suzette R. Cody, MDM[a] * and Raymond L. Rosales, MD, PhD[b] **

ABSTRACT

The daily work life of physicians who function as clinicians, researchers, and academicians is focused on improving public health and patient outcomes in three usually compartmentalized settings: clinics, classrooms, and centers for research. In these settings, physicians are addressing patients' medical concerns based on evidence, and at the same time, considering if new information could lead to research and discovery for better patient outcomes. The physician then proceeds to mentor, teach, and train medical students in quality evidence-based clinical practice and the conduct of scientific research. The importance of operationally blending these three disciplines with research as a common thread is not only a big challenge for these physicians but also an opportunity to innovate for better public health.

Key words: Physician, clinician, researcher, academician, public health, physician-scientist

INTRODUCTION

In the midst of every public health crisis like the current Covid-19 pandemic, the physicians who wear three hats as clinicians, researchers, and academicians are seen and heard often in all media. These physicians are capable of discussing diagnosis or treatment of diseases in the same breath as they explain ongoing research stemming from their clinical experience. It is not unusual for these same physicians to also be seen as medical school faculty members mentoring future physicians. For the discerning viewer, these physicians are operating seamlessly as clinicians, researchers, and academicians to address public health concerns.

For the physicians, however, navigating these roles or disciplines is challenging since each resides in distinct organizational systems.[1-3] Rigorous study and training accompany each discipline. Most physicians prefer and are comfortable in specializing in one discipline or two in the course of their medical careers. The physicians who occupy all three disciplines contend with varying and sometimes competing requirements and expectations from each institution they work with. Without strong organizational collaboration and support,[1-3] blending these three disciplines can be daunting for these physicians.

Pandemic aside, whether in the public eye or not, the daily work life of physicians who function as clinicians, researchers, and academicians is focused on improving public health and patient outcomes in three usually compartmentalized settings: clinics, classrooms, and centers for research. In these settings, the physicians are addressing patients' medical concerns based on evidence, and at the same time, considering if new information could lead to research and discovery for better patient outcomes. The physician then proceeds to mentor, teach, and train medical students on quality evidence-based clinical practice and in the conduct of scientific research. The importance of operationally blending these three disciplines, with research as a common thread is not only a big challenge for these physicians but also an opportunity to innovate for better public health.

✉ Mary Suzette R. Cody, MDM
suzcody@icloud.com

a. New York City Health & Hospitals (NYCHHC)

b. Research Center for Health Sciences, Faculty of Medicine and Surgery, University of Santo Tomas (UST)

* Shared first authorship

PHYSICIAN AS A CLINICIAN

Most physicians are clinicians who directly relate to patients in terms of diagnosis and treatment. With the rise of evidence-based clinical practice (EBCP), originally referred to as evidence-based medicine, the physician as a clinician adheres to the "conscientious, explicit, and judicious use of the best evidence in making decisions about the care of individual patients".[4] Critical thinking is indispensable for a clinician. The patient's clinical condition is where every inquiry begins and ends. As clinicians, physicians work in clinics or hospitals governed by policies and enforced by the executive management. Hitting prescribed clinic hours and mandatory administrative meetings are not always conducive to digging deeper into observed disease patterns or uniqueness during consultation hours with patients.

As clinicians, physicians have to present their observations for formalized inquiries at the centers for research. Once approved for research, heavy administrative coordination with the clinic or hospital management can be bureaucratic.

PHYSICIAN AS A RESEARCHER

Physicians with MD-PhD degrees are referred as physician-scientists (PSs) and their numbers are dwindling.[1-3,6,7] Dr. Schwartz described PSs as "not only drawn to medicine and the clinical challenges of our patients," but also "drawn to the opportunities that our patients' medical problems bring to science."[3] With the decrease in retention and recruitment of PSs in Japan, the attendant causes are gleaned in Dr. Ishikawa's recommendations: "include increasing the knowledge of medical students and younger physicians on the role of PSs and the benefits of a career as a PSs, providing specific career paths for PSs, securing specific positions for PSs, and increasing the compensation for PSs."[7] According to one study, some indicators of successful PSs include: "have advanced biomedical research through contributions that form the basis for future scientific breakthroughs; have made major contributions toward mentoring the next generation of (physician)-scientists; have engaged in translational research, which may have contributed directly to diagnostic or therapeutic advances; have a national reputation, as evidenced by their publications, invitations to speak at national and international meetings…"[8]

To be able to participate in valuable research, it is not necessary to have MD-PhD degrees. The physician-clinician can become a researcher with proper training in the conduct of the scientific study. Having observed particularly perplexing medical concerns presented by patients, the clinician can conduct a study with possible collaboration from other researchers and eliciting approval from the Institutional Review Boards (IRB). It is important to publish the results of the study, successful or not, and its validation of the hypothesis. The clinician will have to manage the tug-of-war between clinical practice and research with institutional requirements from both sides.

PHYSICIAN AS AN ACADEMICIAN

Physicians who are clinicians and researchers may also become faculty members of the medical school. Teaching in classrooms about the evolving medical knowledge to future students is no small feat. Added to that are the essential training and mentoring of future physicians on effective clinical practice and conduct of the scientific study. In a study by Holmboe, et al.[9] they found that "many of the faculties are insufficiently prepared to deal with assessments of the traditional competencies of medical knowledge, clinical skills, and professionalism as well as the newer competencies of evidence-based practice, quality improvement, interdisciplinary teamwork, and healthcare systems".

One recommendation is for salary support that "provides 'protected time' from clinical duties for academic pursuits, including responsibilities related to clinical teaching and mentoring".[9] Another recommendation is for further analysis by the medical school on "current practices of teaching-learning and research, as well as reflect upon possible changes needed to develop a student-focused teaching-learning and research culture".[10] Fundamentals of research design and methodology need to be embedded in the mission and vision of the medical school as well as incorporated into undergraduate medical education and postgraduate training curricula and then reinforced through continuing medical education.[6,10]

CONCLUSION

The compartmentalization of disciplines attendant to physicians functioning as clinician, researcher, and academician is a continuing and evolving challenge. As one author puts it: "*success in silos* prevents sharing benefits of each other's achievements and hence cannot be transferred or translated as the best collaborative patient care for maximized *patient satisfaction* and overall healthcare delivery outcomes.[11] The same author stated, "strong need to link clinical practice, backwards with clinical education and research to enrich the future with the 'best and evidence–based' practice, ensuring measurable patient care outcomes."[11]

Uppermost in the minds of physicians wearing these three hats as clinician, researcher, and academician are how to effectively navigate through institutional requirements in clinics, centers for research, and classrooms for better public health and patient outcomes. Formidable as it may be, it is not far-fetched for organizations to consider and innovate for better collaboration and support these physicians. Motivation on the part of the physicians is almost innate since they have already put in those hours of study, training, and experience upon themselves to steer through three disciplines. For them to go around clinics, research centers, and classrooms is not just necessary but comes naturally.

It will not be a surprise to see future studies on how institutions innovate to support physicians who inhabit all three settings: clinics, research centers, and classrooms for quality clinical practice and research.

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