

Preface

Importance of the Dialogue Between Clinical Practice and Scientific Research

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Even though clinical practice is nourished by the results of scientific research and the latter is fed by the needs in clinical practice, the truth is that in recent times these two worlds have grown inconveniently apart. One seems to be the world of science and other the world of clinical practice. Even in the curricular structures of medical training, two clearly defined stages are differentiated: basic sciences and clinical disciplines, to such a degree that they appear as if they were two separate careers. All curricular programs have to make use of integrative activities since they are often seen as separate compartments. Furthermore, in many schools, basic science teachers are not clinicians anymore, but biologists or chemists; hence, they lack the perspective of the physician's professional practice, and many clinical teachers have forgotten, if not disregard or fear, basic sciences. Today, new basic sciences such as epidemiology, statistics, and communication and information technology have been added, and a trend towards getting out of the basic-clinical dichotomy and endeavor into the essential-applied dichotomy is rather perceived (Bandiera G, Boucher A, Neville A, Kuper A, Hodges B. Integration and timing of basic and clinical sciences education. *Med Teach.* 2013;35(5):381-7. doi: 10.3109/0142159X.2013769674. Epub 2013 Feb 27). Moreover, clinical practice is at risk of becoming an empirical, reflex, stereotyped activity when it drifts away from science, even from the so-called clinical science.

The movement of clinical epidemiology represented a change in the way the archetypal activity of physicians is seen by incorporating methods that are characteristic of science not anymore to the inquiry of basic aspects of medicine, but to clinical practice itself, and not only as a strategy for the generation of knowledge, but to take care of patients more adequately. From this proposal, many methodological advances emerged, several of which were grouped within evidence-based medicine. One of the most important achievements for the care of patients has been precisely the implementation of these methods in the search of better solutions for the diseased. This supplement is a contribution in this sense and not necessarily for the training of investigators but for the training of better physicians that integrate research activities to their routine clinical practice. Ultimately, patient care is an appropriate space for this integration of complementary visions: there is where the research needs to arise and there is where the results arrive as better solutions than the previous ones.

Evidently, traditional training of physicians does not cover sufficiently this ability to identify problems in daily routine that should be addressed using science, or to look for the appearance of solutions for their timely implementation, and even less the ability to judge the validity and reliability of everything that is published and disseminated. Unfortunately, the excess of information is riddled with pseudoscience, whether publicity appearing to be scientific information or well-intentioned results but with methodological flaws. Those who take care of patients should at least be able to tell apart the valuable from the superfluous, the promotional from the scientific, the applicable from the theoretical, the reliable from the questionable, and the valid from the non-valid information. The basic input for medical care is, certainly, information, and therefore, it has to have quality.

But clinical practice is also an appropriate setting for the creation of knowledge. The problem is that the motivation, discipline, curiosity or methodology required to make this potentiality effective are not widespread enough. This supplement is, therefore, a valuable tool to awaken the scientist clinicians carry within and to pour this capacity to the benefit of their

patients and the progress of the profession. Much has been debated on whether clinical practice is a science or not. What we are able to state is that it is a space where knowledge generated by science can be put to test, a territory wherein scientific research needs emerge, an activity that follows a similar inquiry methodology to that of science, and a setting where patient-centered research can certainly be developed.

It is true that there are many and very good texts on research methodology and scientific literature critical analysis, but this supplement has the advantage of being aimed at those who are responsible for the care of patients in an institution like the *Instituto Mexicano del Seguro Social*, and it is written by healthcare professionals who have this kind of experience, in addition to their methodological training, which was focused on clinical research as well. The potentiality for finding questions that can be addressed by means of research and pursuing the results of investigations in order to apply them at the appropriate time on everyday patients has been poorly exploited. This *Revista Médica del IMSS* supplement is a tool to move forward along this path.