Research Education: Is It an Option or Necessity?

Our goals as physicians are to prevent diseases, treat health problems, reduce suffering, and improve patients' quality of life. Some patients undergoing surgery or any other form of intervention will have unfavorable postoperative outcomes, regardless of the success of the technical procedure.[1] The surgeons' satisfaction with the procedural results does not necessarily correlate with patients' satisfaction. It is necessary to evaluate the risk factors scientifically and to define the prognostic predictors through screening instruments for selecting the best treatment option for the specific patient.[1] Patient satisfaction is a combination of fear and beliefs, psychosocial factors, functionality, level of pain, job satisfaction, and familiar environment, which justify the need for global patient evaluation. Tailoring the therapy for specific patients is the art and science of medicine.

The emancipatory nature of education requires research as its fundamental base. Physicians can only improve their skills and knowledge through inquiry; otherwise, knowledge stagnates and becomes obsolete. The importance of research to achieve success in our profession is beyond the willingness or not to publish. From the moment physicians complete their formal medical training and start their residency, they are directly responsible for their own continuous learning, which will last throughout their practice lifetime. Continuous learning has become a necessity for all professionals, and knowledge and skills of research are essential for independent and efficient learning for critical interpretation and appraisal of scientific information. The only way that professionals can achieve this permanent education is to stay up to date with valid information and ultimately improve their practice.

Research is the engine that drives knowledge forward and empowers physicians to: (1) learn by themselves, (2) design appropriate studies based on validated research instruments to support clinical and surgical practice, (3) build a databank, (4) adopt the best diagnostic and treatment modalities according to their own experience and the information from their database, (5) promote feedback regarding the effectiveness of their practice, (6) promote a change in attitude, and (7) level the patients' expectations according to the real benefits of the treatment offered.

Physicians are always encouraged to write down and publish their results, despite knowing that publication is a consequence of an overall scientific–investigative attitude. The number of scientific publications contributed by each country toward the global output has become one of the critical indicators for assessing the strength of research in a nation. To contribute significantly to the global share of publications, serious efforts are needed such as providing better conditions for research training and promoting joint scientific activities to exchange experiences, identify and use the strengths of research centers, stimulate multicenter projects, maximize human resources, and improve fund allocation for research. This information is even more important when it comes from different continents because it shows that the information can be used and applied by physicians around the world.

It is our duty to motivate and engage the young generation in research. In Latin America, there were the smallest number and the lowest quality of scientific publications by spine surgeons in the Medline database in 12 years.[2] The interest and motivation to perform scientific research were very high (96% of responders), despite the barriers of lack of knowledge, low economic resources, and reduced experience in doing research.[2] This scenario was endeavored to change by providing a competency-based curriculum, which was divided into four main components: (1) research educational plan, (2) performing research, (3) technical and professional support, and (4) assessment.[3] To improve the understanding, it was necessary to introduce the basic concepts of research to all interested persons in a simple and didactic manner through books, presentations and eLearning courses, lectures, and mentor/mentee research projects for learning while performing research.[3-5] The success in Latin America was encouraging to transfer the experience to the Middle East and to the rest of the world.

Between education and research, there is a coinciding path: Both take a position against ignorance, both value inquiry, both are dedicated to a reconstructive process, both include the confluence between theory and practice, and both oppose manipulation of truths and plagiarism. In that sense, research is essential to challenge current paradigms, provoke thoughts, and open the mind to new ideas and skills.

Research education is relatively inexpensive and highly effective. Although research may initially appear to be an optional activity, future directions in healthcare policies, as well as our own edification, require an analysis of the efficacy of our treatment. This is only possible if the physician learns and utilizes the appropriate research tools. It is never too soon or too late to learn how to do and read research.

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