

Editorial

Research and Publications: Where Do We Stand?

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Medical literature, a term largely reserved for textbooks until a century ago, now refers to a print and electronic based "universe" of previously unforeseen magnitude, expanding every single second, incorporating within its vast boundaries, thousands and thousands of articles every day. This availability of information on fingertips has made every doctor, medical student and nurse, a potential researcher, scientist or author, with an opportunity of making himself/herself heard or read by the whole world, in the process making his or her contribution to science, however insignificant it may seem. Contributions are being encouraged at all levels, and every piece of previous knowledge is now being questioned in the light of "evidence". Experience alone, is no longer a justification. Scientific reasoning has reached new heights and ranging from the neckties that physicians wear to the sleeping habits of mice, everything is being studied much more thoroughly. Health care personnel have become critical of all practices previously considered "standard" and nothing is accepted at face value, unless backed by proof.¹ The terms "best possible" and "gold standard" are now considered relative and arbitrary. Information is being collected at an enormous pace. Every hospital floor is now a research laboratory, just as envisioned by Welch, Osler and Halstead while establishing the foundations of what later evolved into the modern residency programme, at the John Hopkins Hospital at the end of the nineteenth century.² Access to information is for everyone with a curious mind, and even the educated patients are now much better informed about medical conditions.^{3,4} Growth in public awareness has led to an increase in overall interest and we notice a lot of pressure from the "non-medical" faction, demanding better "evidence" in all aspects of healthcare. The result is that overwhelming funds are flowing in from all directions, resulting in even more research and further expansion of the "universe". But this is the story of the developed nations. The "developing countries", are still far behind in this changing era of research and publication.

According to the statistics published in the January 2007 issue of Index Medicus, there are five thousand one hundred and sixty four indexed journals in the world, a figure which has obviously multiplied by now. More than 300 of these journals are directly related with surgical research alone and almost an equal number related to various aspects of neurosciences research. Each of these

5164 journals has been selected by the National Library of Medicine (NLM) with the "advice and guidance" of the Literature Selection Technical Review Committee (LSTRC). LSTRC is a National Institute of Health (NIH) chartered committee composed of fifteen authorities including physicians, researchers, educators and editors. Looking at the major developing countries of the world, in July 2004 the number of indexed journals was 4098 and the list contained one journal from Sri Lanka and Saudi Arabia each, three each from Pakistan and Bangladesh, four from Egypt, and twenty eight from India. Compared to this England, was responsible for the publication of more than seven hundred of these journals. Two and half years later as of January 2007, the updated list now carries 5164 journals, more than 25 % increase in number. On this list, there is still one journal from Sri Lanka, three from Saudi Arabia and Bangladesh each, four from Pakistan, seven from Egypt, and thirty four from India. England can now boast of more than 800 of these journals. Among other developed nations, Germany has more than 300 journals and United States of America more than 2000. It is obvious that we are not only contributing too little, but also that even our growth is at a very slow pace. The most recently updated list as of January 2008 carries 5246 journals.⁵

It was estimated almost two decades ago that only about five percent of the world's resources for health research were being applied to the health problems of developing countries, where almost 93% of the world's burden of 'preventable mortality' resided. The five percent became ten, the figure of 93 was reduced to 90, and this came to be known as the '10/90 gap', a term coined to try and capture the major imbalance between the magnitude of the problem and the resources devoted towards addressing it.⁶ We as developing Asian countries in particular, despite accommodating more than twenty five percent of World's total population and perhaps a much higher proportion of World's patient population, with their own unique epidemiological characteristics, are contributing extremely little to this vast and still rapidly expanding ocean of knowledge. The need for more research on our part cannot be emphasized enough. Our patients suffer and succumb to pathologies unknown to the west. Very few audits from our centers ever get published, but even these clearly suggest gross demographic differences from reported literature, in even common pathological conditions possibly implying

difference in basic pathological processes.⁷⁻¹⁴ Supportive evidence comes from similar findings reported from India. Such interesting observations need to be investigated further and reported internationally. Unless published or presented, these problems will never catch the eyes of rest of the world. Publication of these problems will catalyze both interest and funds, leading to possible solutions. Also, with the growing competition for training posts abroad, much more emphasis is now laid at research and publications prior to the commencement of postgraduate training. Institutions are inviting and even encouraging applicants for basic sciences and Ph.D programmes. Many public and private organizations, Pakistan Science Foundation as well as the Higher Education Commission of Pakistan are not only promoting research at all levels, but also providing free of cost technical assistance as well as offering monetary benefits.^{15,16} We are also witnessing a gradual but constant surge of local medical journals, each striving to improve its standard. Most of these journals are indexed by the Pakistan Medical and Dental Council and can be easily accessed by local search engines.¹⁷ The contents of these journals still lag far behind when compared to international standards, but gradual improvements are clearly visible. These journals present the reader with local experience and are invaluable for local research. Some of these journals have shown consistency in standard and can and will be indexed with Medline soon.

The College of Physicians and Surgeons is also promoting quality research through the mandatory workshops, synopsis and dissertations. It also extends its constant support in the professional inputs of qualified statisticians into these research projects. Medical and surgical conferences are becoming more and more frequent and the attendance is getting better by the day. The quality of paper presentations is also improving. Nowadays, postgraduate trainees in clinical specialties are selected not just on the basis of what they know, or what they can do, but what they are contributing in terms of publications. Every institution prefers a trainee who can research, write and publish with them; or at times, for them. All our graduates will need research topics of interest to boost their resume and improve their chances of key academic positions once they graduate, both within the country and abroad. Even at a more senior level, promotions are now "publication based", rather than only "experience based". In fact, now the policy makers are putting more emphasis on not just the number of publications, but also the quality of published matter. Undergraduate students are now aware of the importance of publications for their future growth and seem more interested and keen on learning about literature at an early stage. Institutes are including research, statistics and medical writing within the curriculum framework.

Universities, colleges and bodies like the Pakistan Medical Association are now arranging regular seminars and workshops to augment writing capabilities of undergraduate as well postgraduate students. Medical journals are receiving an increasing numbers of articles and case reports from junior doctors and faculty members every month. Trends are thus changing all over.

What we now need, is more space to accommodate these developing researchers and medical writers who are going to paint a new picture of future of medical literature in Pakistan. At the moment, there are only a handful of peer reviewed local journals with limited publishing space. Even these are facing problems and regularly have trouble meeting financial requirements. Some have chosen the unwanted option of charging the authors to make their ends meet, others are dependent on corporate advertisements and support from pharmaceutical industries, potentially jeopardizing their ethical standards. In most of Western world, where we see hundreds of journals published, the cost of publications is mostly borne by medical societies, institutions, associations, government or non-government organizations working for high standards in medical research and publications. Similarly, there is the issue of lack of standard laboratories for basic science research. The faculty at the University of Karachi can extend their help in this regard by sharing their expertise and equipment to establish equally functional laboratories at other centers. Exchange programmes with other universities can also be improved, as many institutions are already benefiting from it. It is about time that we realize the need for more research and consider this a priority. This initiative is badly needed in our country also, if we are willing to progress as a nation. Changes made today will produce results at least five to ten years later, so every day gone is a valuable day lost.

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