

Medical Research in Pakistan

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The provision of modern health facilities, new medical institutes and recruitment of skilled health workers were among the important responsibilities of state and a part of manifesto of all political stake holders in Pakistan. According to the statistics, there was only one medical colleges with 500 medical graduated in 1947, which has increased to 108 medical colleges and more than 11000 students in 2018¹. Pakistan Medical Counsel was established in 1948 as a regulatory body in health profession, which was converted into present day statutory body as Pakistan Medical and Dental Counsel (PMDC) in 1962¹. The Pakistan Medical Research Council (PMRC) was established in 1957 to regulate and promote the medical research in Pakistan². Another institution, Health Services Academy (HSA), to provide continued medical training to health professionals were constituted in 1988³. The Higher Education Commission (HEC), which was established in 2002, assumed a large role in training, teaching, and research, also in health sector⁴.

The data from these organization shows that the funding for health research by the government or private sectors institutes has gone up over the last two decades⁵. The total budget on medical research by Pakistan Medical Research Council (PMRC) has increased almost 2-5 times between 2007–08 and 2011–12. From 2001–2011 the number of research publications in health has increased about 7-5 times². Regarding medical journals which publish this research, in Pakistan the first issue of “Journal of the Pakistan Medical Association” (JPMA) was published in 1953. Subsequently, over the years, exponential increase in number of medical journals was seen in various specialties⁶. The largest database of medical journals Pak Medi Net contains almost 80 medical journals⁷ and in index Pakistan which is maintained by PMDC included 72 journals⁸. Whereas the HEC Pakistan has recognized 57 health journals in different categories (W, X, Y and Z category)⁴. PMDC and HEC, both are the regulatory bodies who are responsible to monitor and facilitate the quality of journals⁹. Statistically almost 25% of the medical schools or institutes have their own medical journals but less than one percent of these are indexed in PubMed. So only a small percentage of papers in medical research from Pakistan appear in indexed journals^{5,9,10}. Despite this exponential increase, the quality of medical journals is not improving. As per “Journal Citation Reports” published by Thomson Reuter, so far only four medical journals are indexed in Medline and having some “impact factor”⁹.

The bibliographic analysis shows that the research output contributed by medical institutes varies significantly, fluctuating between 02 to 550 publications per institute per year during the last decade⁶. These statistics gives an impression that the number of competent and capable doctors to provide health care or clinical services to the public are adequate. Moreover, as per these reports a sequential increase in the research publications is suggesting that our health professionals are also skilled researchers.

The truth is not so auspicious. Despite a visibly increase in research publications, majority of these research publications are not indexed in PubMed^{11,12}. Only a small number of medical institutes have produced more than one hundred research papers and the rest of the institutions hardly produced ten or more paper per year. Majority of these are non-indexed publications¹². Mushtaq and colleagues after reviewing medical journals published in Pakistan from 2007 to 2010 has observed an increase in the overall medical research output but keeping in view research standards has suggested an increase needs to be manifold to bring medical research activity at par with international standards¹⁰. Similarly, we also lag behind in student’s research as compared to developed nations or other parts of world because of a myriad of reasons. To promote quality research or to produce good researchers, sincere efforts by institutes and from government are needed as recommended by Mushtaq and colleagues¹³.

Another equally important aspect is that how or why this research is done or used. Research in any professional field defies a unique, precise definition and it can be defined that the research is the discovery of new and interesting phenomena, creation of new concepts that have explanatory or predictive power, making of new and useful inventions and processes, etc. The success of a research is usually referred to its importance or need¹⁴. The researcher should undoubtedly do something original, instead of repeating the work which has already done. Moreover, there should be a valid and interesting justification or reason for doing research. Realistically speaking, to me it is not considered research if data is collected without any justification or rationale, even if it is published in some international or national journal.

In majority of cases, the prime objective of any research is contribution in the current knowledge so that the conversant choices or decisions can be made towards improving the population health, has not been fulfilled. To my experience and knowledge, and after discussions with health personals and policy makers, I have reached to the conclusion that so-called health research conducted and published in journals has hardly been used to make informed decision about health or national policy planning processes. This aspect was also highlighted in HSA report about seven year’s back⁶. Secondly, as per policy, the research publications has been made a mandatory requirement for induction and faculty promotion by PMDC and HEC. To fulfill these requirements, the health professionals often publish articles on required basis and that’s usually in non-indexed, non-peer-reviewed or journals owned by their own institutes⁹. Majority of these research publications comprises of duplication or repetition of work which is already done or just a simple audit or surveys which is of very superficial nature and has no or minor contribution or impact to the field of medicine.

For research, the impact or indication of success can be measured by its contribution or effect to the field and on the existing knowledge or skills. To me among all flawed measures to judge the quality of research, is to count the number of citations in journals. Whereas, quality research judgement involves many different criteria. Moreover, all research papers quality, impact and importance should be judged meticulously, otherwise every kind of nonsense with pretensions to research would proliferate, and demand reward

in some shape or form as it is happening in field of medical sciences at present. In our setup, only counting number of publications irrespective of its originality, need or impact and rewarding the individuals proportionately has further deteriorated the state of corruption. By this approach or attitude from regulatory bodies, an atmosphere, where unethical attitude or behaviors was regrettably common to begin with, has been made unhealthier.

In improving the quality of medical research and journals where research papers are published, both regulatory bodies, PMDC and HEC are serving somehow by setting a minimum standards for journals and also ensuring it through evaluation process to maintain these criteria's to be recognized by these bodies⁹. In reality, the medical education and research governess is the primary responsibility of the PMDC and HEC. In my view, to promote and monitor research in medical sciences, is the prime responsibility of PMDC. The PMDC should have a pivotal role in research because it is a licensing organization for doctors, medical colleges and public health institutions, and is also responsible for setting standards for medical research and publications.

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