

EDITORIAL

**BREAKING THE MOLD:
FOSTERING A CULTURE OF RESEARCH IN PAKISTAN**

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Pakistan is a developing country in South Asia which has specific cultural, religious, economic, and geographical challenges which need to be addressed concomitantly when one speaks about research culture in Pakistan. Pakistan is suffering from a scarcity of domestic, indigenous research which could help identify psychosocial epidemiological patterns and viz a viz, the development of culturally appropriate policies and interventions. The purpose of this editorial is to identify barriers in developing result culture in Pakistan and its solutions.

It is difficult to recognize a uniformly satisfying definition of a “culture of research”. To provide a broad and useful conception Teresa Marchant, characterizes culture as “a system of widely shared and strongly held values.” This would make a culture of research a system that places great value on conducting and communicating scholarly research.¹ According to the Royal Society of Science, an independent scientific academy of the United Kingdom, “research culture encompasses the behaviors, values, expectations, attitudes, and norms of our research communities. There is a demonstrated link between strong research culture and higher research output, which is a key indicator of success for a research-intensive strategy.² Research skills, critical appraisal, and inquisitiveness are considered important among the attributes of medical graduates as these are crucial to the practice of Evidence Based Medicine (EBM) and central to clinical competence of the medical graduates.³

Although the research culture in Pakistan has developed over the years, but it is still not at par with international standards. With the inception of higher education commission in Pakistan in 2002, number of publications increased resulting in greater research visibility. However, this growth is not substantial comparing the neighboring countries India, China, and Iran. Only 90 persons are engaged in research and development (R&D) per million of the population in Pakistan, compared with 4,100 in Japan. The share of Pakistani researchers is a mere 0.04% compared with India’s 20% in the world’s research publication.⁴ Pakistan has just four medical journals indexed in PubMed as compared to more than two dozen medical journals from its neighbouring country India.

Different factors/barriers are responsible for the lack of development of healthy research culture in Pakistan including individual factors, institutional

factors, and national factors. Individual factors include lack of skill, time, and funding. Institutional factors include lack of infrastructure, funding and linkages are most important. at the national level inadequate role of regulatory authorities, lack of support for regional and international long-term partnerships are significant.⁵

Lack of dedicated time for research was identified as one of the commonest factors recognized internationally and in Pakistan⁶. Clinical faculty finds it difficult to find time for good quality research due to clinical responsibilities which leads to either rushed low quality papers or request for peer authorship which is a serious concern and needs to be addressed. Allocation of dedicated research time for faculty and introduction of formalized workload documents can help overcome this problem.⁷

Poor research conducting skills is another major barrier to develop positive research culture according to literature.⁸ Training programs for medical education are designed more towards clinical service and education, rather than research, thus we end up with very skilled clinicians having poor research capacity. In Pakistan undergraduate and post graduate students experience inadequate research training during their study. There is sufficient evidence that early training and involvement of undergraduate students in research helps in shaping research skills in post-graduate life.⁶ To improve research skills in under and postgraduate students’ various interventions can be employed like development of national research programs, voluntary immersion at individual institution, workshops, research courses or fairs featuring keynote speakers, and presentations. Curriculum that incorporates, enacts, and implements research during undergraduate medical education is important for developing lifelong research habits.

Lack of research visibility at level of international research is another important factor for poor research culture. The number of non-indexed publications are increasing on an exponential basis but there is lack of high-quality impactful research. New local sub-standard journals are mushrooming. 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 have some impact factor.⁹ The standard of publications by researchers as well as standards of journals by

editors need much concrete efforts. local journals visibility can be enhanced through search engines, bibliometric tools and open-source software-based systems like Scientific Electronic Library Online (SciELO) with the purpose of indexing high-quality national journals on transparent criteria and to provide free worldwide electronic access to the content of these journals.¹⁰ Our regulatory bodies & universities are responsible for setting minimum standards for research and publications. By setting these standards we can add good quality research to the pool of international publications.

Due to Pakistan's different demographic factors, we can benefit from Western or highly privileged countries' research work in fragments, not entirely so it's imperative to foster a culture of high-quality research, as the world is now moving from research published in "impact factor" journals to research focused on "societal impact" This is possible by nurturing a healthy environment of research propagation at school & university level. The process of indigenizing research includes integration of Eastern requirements into the Western framework through a quality research environment in institutions. By crossing the barriers to research, we would be able to establish the differences, similarities, contradictions and ambiguities between the different cultural frameworks and their implications in the field of medical education in Pakistan.

REFERENCES

1. Marchant T. "Developing Research Culture—Overcoming Regional and Historical Obstacles." Chapter Five in Professional Doctorate Research in Australia: Commentary and Case Studies from Business, Education, and Indigenous Studies. Lismore: Southern Cross University Press. 2009; p.6.
2. The Royal Society. Research Culture. 2018. [Internet]. [cited 2020 Feb 10]. <https://royalsociety.org/topics-policy/projects/research-culture/>
3. Wright C, Richards SH, Hill JJ, Roberts MJ, Norman GR, Greco M, *et al.* Multisource feedback in evaluating the performance of doctors: the example of the UK General Medical Council patient and colleague questionnaires. *Acad Med* 2012;87(12):1668–78.
4. Kengia JT, Kalolo A, Barash D, Chwa C, Hayirli TC, Kapologwe NA, *et al.* Research capacity, motivators and barriers to conducting research among healthcare providers in Tanzania's public health system: a mixed methods study. *Hum Resour Health* 2023;21(1):73.
5. Javed Y, Ahmad S, Khahro SH. Evaluating the Research Performance of Islamabad-Based Higher Education Institutes. *SAGE Open* 2020;10(1):2158244020902085.
6. Lodhi AS. A pilot study of researching the research culture in Pakistani public universities: the academics perspective. *Procedia-Soc Behavioral Sci* 2021;31:473–9.
7. Khan F, Naveed A. Barriers in cultivating research culture at an institutional level: Narrative from a developing country. *J Pak Med Assoc* 2021;71(5):1316–8.
8. Dadipoor S, Ramezankhani A, Aghamolaei T, Safari-Moradabadi A. Barriers to research activities as perceived by medical university students: A cross-sectional study. *Avicenna J Med* 2019;9(1):8–14.
9. Ahmad S. Measuring Research Performance of the Oldest Medical School of Pakistan. *Libr Philos Pract* 2020;4114:1–6.
10. Gevers W. Globalizing science publishing. *Science* 2009;325(5943):920.

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