

EDITORIAL VIEW

MEDICAL RESEARCH

The barriers to meaningful research in Pakistan and the way forward

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ABSTRACT

Despite a mushrooming of a large number of universities in Pakistan during the past two decades, the country still stands at 45th position among the countries of the world regarding the meaningful research. In comparison, India stands on the comfortable 7th position. Over ninety medical journals are being published in Pakistan, but none of them has been able to attain 'W' category in the HJRS software being run by Higher Education Commission (HEC). It looks that millions of rupees spent in the name of research in the country are going down the drain. A large-scale effort is needed at the national level to start public-private partnership to promote meaningful and useful research, which helps the country to speed up its growth in every field and to shine at the international level.

For its part, Anaesthesia, Pain & Intensive Care has been trying, since its inception, to promote genuine research in the country. A prominent research scholar, Logan Danielson published a series of five papers on research in the journal. We have been instrumental in publishing nice research papers from across the world, especially from the Far East and Central Asian countries. But the ratio of Pakistani papers remains few and far between.

This invited editorial is another endeavor to draw the attention of our academic elite to focus on the promotion of the research culture in the country on the war footing. It sheds some light on the barriers as well as the possible remedial measures. Our graduate and postgraduate institutions, universities, and HEC need to pay attention towards this very important aspect.

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INTRODUCTION

Research is the core of medical advancement, providing insights that advance healthcare systems and improve patient care.

There is a growing global trend in research on the production and application of scholarly communication across all disciplines, including medicine, redirecting attention to its crucial role in enhancing healthcare.^{1,2} It also builds up the writing, cooperation and literature exploration, and critical thinking abilities of medical students as well as doctors.³ Additionally, conducting research as an undergraduate or post graduate improves

a student's chances of pursuing a career in medicine by preserving their attitude towards conducting research throughout their academic career.³ In addition to the latter publishing, evaluating career and personal growth is now a method of hiring doctors in this era of increased competition.³

Since Pakistan is a lower-middle income country, its institutions share few research contributions with global repositories and exhibit significant deficiencies in scientific and technological areas.¹ Many obstacles in Pakistan, a country with abundant talent and potential, prevent doctors from conducting worthwhile research.

It is therefore becoming more important to consider the background and current state of publishing attitudes among Pakistani medical students and doctors as well as to identify and remove any obstacles they may be facing.¹

Major barriers and the way forward

It is imperative to address these barriers mentioned to develop a culture of innovation and excellence in healthcare and realize the full potential of Pakistani medical professionals.

Deficient research culture

The healthcare system in Pakistan needs help in cultivating a research-focused culture. Many doctors prefer clinical practice over research because there are limited incentives, opportunities for mentorship, and recognition for research activities.⁴

Way out for this would be by creating a research culture and providing incentives such as grants, prizes, and opportunities for career advancement, physicians can be urged to engage in research. Establishing mentorship programs where junior physicians receive guidance and support from experienced senior researchers can also ensure research involvement.¹

Restricted Resources and Funding

One of the main obstacles to significant research in Pakistan is the widespread need for more funding and resources. Due to limited healthcare budgets and low investment in research infrastructure, doctors cannot conduct extensive research and look into innovative solutions to pressing health issues. Without adequate funding, even the most brilliant research ideas remain unattainable, which inhibits the possibility of making groundbreaking discoveries.⁵

Way forward for this problem would be creating a research culture through rewards like grants, honors, and chances for career progression can encourage medical professionals to conduct research. Research participation can also be encouraged by establishing mentorship programmes where junior physicians receive guidance and support from senior researchers.⁵

Guidelines and Ethical Difficulties

Another degree of complexity in the issue is created by ethical and regulatory issues, which frequently cast a shadow over the research process. The time and effort required to navigate complicated regulatory frameworks and obtain ethical approvals discourage many doctors from pursuing research initiatives.⁶

Solution lies in research process simplification that can be achieved by streamlining regulatory processes and establishing explicit guidelines for moral conduct. Educating physicians on research ethics and regulatory compliance can improve their ability to follow procedures and successfully negotiate obstacles.⁶

Deficient Technology and Infrastructure

Physicians are forced to work with antiquated equipment and small laboratory spaces due to the lack of contemporary infrastructure and technology, which widens the research gap. In a time when cutting-edge technology plays a significant role in scientific breakthroughs, the need for access to modern research instruments hinders creativity and restricts the scope of research projects.⁷

Way forward would be by getting over the technology gap will be crucial to equipping physicians with the tools they need to advance medical knowledge. Healthcare institutions must make investments in modernizing their infrastructure and technology. Researchers can collaborate and share data more efficiently via digital platforms and telemedicine.⁷

Constrained Networking and Collaboration

Undertaking significant research requires interdisciplinary networking and researcher collaboration. However, the extent and impact of research projects may be limited due to Pakistan's limited opportunities for networking and cooperation.⁸

The way-out can be knowledge sharing and interdisciplinary research initiatives can be facilitated by encouraging collaboration between healthcare institutions, universities, and research organizations.⁸

Cultural barriers

In Pakistan, a nation rich in diversity and legacy, cultural barriers frequently obstruct doctors' progress in carrying out significant research. Centuries-old cultural traditions frequently place a higher value on traditional cures and superstitions than on evidence-based medicine, making individuals cautious of scientific research. Doctors face extra challenges from societal norms and family obligations, leaving them with little time or energy to conduct research.⁹ Language limitations also limit research. Given that English is widely used in scientific discourse, people who are not fluent in the language are frequently left out, which restricts their access to research publications and opportunities for collaboration.⁹

Way forward would be that doctors must participate in community education and awareness campaigns to break down these barriers and create a bridge between

scientific inquiry and cultural norms.⁹ To motivate doctors to pursue scholarly activities, creating a culture that values research accomplishments and encourages a healthy work-life balance is essential. In Pakistan, embracing diversity and inclusivity and removing language barriers further cultivate an atmosphere where all doctors can contribute to advancing medical knowledge and research.

CONCLUSION

It is not just an aim but also a moral duty to remove the obstacles that prevent Pakistani researchers from conducting meaningful research. There is hope in sight despite these formidable obstacles. The way forward is a multifaceted strategy that confronts these issues head-on and gives physicians the tools they need to organize the advancement of critical research.

Encouraging doctors to pursue research initiatives with the necessary resources, support, and encouragement can unleash a wave of innovation that will transform healthcare in Pakistan and beyond⁹. Let's take advantage of this chance to unlock the potential of Pakistani physicians and open the door to a better, healthier future for everybody.

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