

## Publish or Perish: Reclaiming Purpose in Medical Research

### The Problem: Volume without Value

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The volume of medical publications has increased substantially over the past decade. Despite this growth, there is increasing concern among clinicians, educators, and policymakers that much of the published work has limited influence on clinical practice, health systems, or public health outcomes.<sup>1</sup> A significant proportion of studies replicate existing knowledge questions of marginal relevance. This pattern reflects systemic pressures within academia, particularly the emphasis on publication quantity for academic progression.<sup>2</sup>

The prevailing “publish or perish” culture has encouraged researchers at all levels students, trainees, and senior professionals, to undertake projects outside their core areas of expertise and beyond the immediate needs of their institutions and communities. As a result, research efforts are often fragmented, short-term, and disconnected from local health priorities. Such work rarely contributes to sustained knowledge development or problem resolution.

#### The Foundation: Relevance and Rigor

High-quality medical research should originate from clinical experience, institutional practice, and community-level health challenges. Hospitals, primary care settings, and public health programmes routinely encounter unresolved clinical cases, service delivery gaps, and population-specific disease patterns. These contexts provide a strong foundation for meaningful research questions. Studies grounded in local realities are more likely to generate findings that are relevant, applicable, and contextually appropriate.

Local relevance alone, however, is insufficient. Research must be conducted within a structured framework that ensures methodological rigor, ethical compliance, and strategic alignment. Effective research ecosystems require coordination across multiple levels of academic and health institutions.

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#### Building a Cohesive Research Pathway

At the level of the individual researcher, studies should emerge from the investigator’s professional role, training background, and ongoing clinical or academic responsibilities. Research conducted solely to fulfill promotion or degree requirements often lacks depth and continuity. Strict adherence to ethical standards set by regulatory bodies, including the Higher Education Commission (HEC), Pakistan Medical and Dental Council (PMDC), and institutional review boards, is essential for maintaining research integrity and public trust.<sup>3,4</sup>

The role of the mentor or supervisor is central to this process. Students at undergraduate, postgraduate, and doctoral levels require structured academic guidance. Research projects should align with the mentor’s established area of expertise and long-term research agenda. Supervisors bear responsibility for ensuring continuity, methodological soundness, and scholarly coherence within their research groups.<sup>5</sup>

Institutional alignment is equally important. Universities and teaching hospitals should clearly define their priority research domains based on available expertise, patient populations, and health system needs. Whether an institution emphasizes infectious diseases, non-communicable diseases, maternal and child health, health systems research, or surgical outcomes, student and faculty research should contribute to these identified priorities. This approach enables institutions to build cumulative expertise rather than producing isolated, unrelated studies.

At the national level, institutional research efforts should correspond with broader health research priorities identified by regulatory and planning bodies such as HEC and PMDC. National health challenges such as antimicrobial resistance, emerging infectious diseases, injury prevention, mental health integration, and chronic disease management, require coordinated and sustained investigation. When institutions contribute complementary research within defined national priorities, the collective output is more likely to inform policy and practice.<sup>4</sup>

#### Towards a Meaningful Research Culture Creating a Coherent Pathway

This sequential alignment from student to supervisor,

supervisor to institution, and institution to national agenda, creates a coherent research pathway. It shifts academic culture away from fragmented publication efforts toward coordinated problem-focussed inquiry.

Technological tools, including artificial intelligence, can support this process when used appropriately. AI-based methods may assist with data analysis, literature synthesis, and modeling of disease patterns. However, these tools should complement, not replace, subject-matter expertise and critical reasoning. Intellectual ownership of research questions, interpretations, and conclusions must remain with the author.

A coordinated research strategy yields measurable benefits. Concentrated investigation of priority health problems allows deeper exploration of underlying mechanisms, identification of true evidence gaps, and development of targeted interventions. Such work strengthens the evidence base required for clinical guidelines, institutional protocols, and health policy decisions. Research that is locally grounded yet methodologically robust is also more likely to engage international collaborators and funding agencies.

Regulatory authorities and academic institutions should evaluate research proposals not only for technical methodology but also for contextual relevance and alignment. Key considerations should include the investigator's background, institutional capacity, and the anticipated contribution to defined health priorities.

For researchers, the emphasis should shift from publication volume to substantive contribution. A valuable medical publication is one that addresses a clearly defined local problem and advances understanding or practice in a meaningful way. Progress in medical science is achieved not through the accumulation of disconnected studies, but through focussed, ethically conducted, and contextually relevant research programmes.

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