



ISSN: 2091-2749 (Print)
2091-2757 (Online)

Correspondence

Nabees Man Singh Pradhan
Chief Editor, Journal of Patan
Academy of Health Sciences,
Prof., Patan Academy of Health
Sciences, Lalitpur, Nepal
Email: nabees.pradhan@dr.com
editor.jpahs@pahs.edu.np
nabeespradhan@pahs.edu.np

How to cite this article

Nabees MS Pradhan. Should
research and publication be
included in the undergraduate
medical curriculum? Journal of
Patan Academy of Health
Sciences. 2022Dec;9(3):1-2.

<https://doi.org/10.3126/jpahs.v9i3.52412>

Should research and publication be included in the undergraduate medical curriculum?

Nabees MS Pradhan  

Chief Editor, Journal of Patan Academy of Health Sciences (JPAHS), Patan
Academy of Health Sciences (PAHS), Lalitpur, Kathmandu, Nepal

Members of the scientific community use research to explore, discover and accumulate knowledge/skills to contribute to society which makes humans stand out among all the existing species on the planet. The publication has been used as a tool to document the findings/discoveries, and also to lay down the foundation of the knowledge, based on which humans have the ability to develop complex and advanced stuff, which in other words is termed 'development'.

In an era of information overload, with technological advances, powerful search engines available at the tip of the fingers combined with unlimited digital libraries have made a plethora of information easily accessible to researchers.^{1,2} This has provided a huge opportunity for researchers to do more research and publish their findings. On the flip side, humans have succumbed to darker ways of conducting research and publishing data rendering the authenticity of a large part of the information that can be accessed questionable. Unfortunately, papers relevant to the search are mostly substandard with the problem being either due to substandard research methods, the poor review process, or in most cases, both.³ When the scientific manuscripts from the grey or dark side of the pool pile up to a significant amount, the 'false' information may become 'the obvious and visible' ones often leading to a false course of action.⁴ This can sometimes lead to serious issues in medical science.

Although the scientific paper publication has long been one of the mandatory criteria for upgrading someone as a faculty, little effort has been put forth to train the medical and allied fraternity to make them more competent for conducting scientific research and publishing their findings.^{5,6} The ones who are indulged in research are either the very small minority with a genuine interest in doing so, or they fall into the vast majority who do it because they need to fulfill the criteria for their faculty position.^{6,7,8} Many institutions have some form of training workshops on how to conduct scientific research, and how to publish scientific research papers, but the ones who attend seem to do so to get some credit points to renew their license or for promotion, rather than to gain adequate knowledge to conduct a good research.⁷

Most people involved in the medical sector are busy practitioners.

The research aspect hardly falls into the priority list of their career-oriented goals.⁵ This is also because research has emerged as a separate field of science, making it more difficult for busy practitioners or officeholders to indulge their time and efforts in it. Biostatistics is another important component of research that medical practitioners find themselves ignorant about since it is incorporated nowhere in the undergraduate curriculum, in most of the medical courses, making it significantly difficult for them to be used practically in the research.

Next is the knowledge of research methodology, and research/publication ethics. In a globally digitized world, these issues pose a challenge to the researchers and authors for the conduction of research as well as publication. On the one hand, the conduction of research must be an essential part of scientific advancement, but on the other hand research without ethics poses a threat to humanity.⁸ Similarly, publication ethics can be intentional or unintentional; plagiarism, ghost authorship, gift authorship, etc. are some forms of research/publication misconduct prevalent in research and publication, possibly thanks to the lack of awareness of ICMJE guidelines.⁹ Most institutions have no or very few incentives/research funds allocated for research/publication purposes. Furthermore, even if one conducts commendable research, publishing in a standard journal with a high impact factor costs a fortune, often beyond the reach of common medical personnel in this part of the world. Surprisingly enough, the scientific community has not been seen to take up the initiative to incorporate research part even remotely into the undergraduate curriculum.

To tackle the problem, first and foremost, the scientific medical community needs to develop a research-oriented mindset and bring about change from the core. While the need for propagating and dissipating knowledge about the research and publication is imperative to develop a research culture, training sessions and workshops do have a role in stimulating beginners, but there is a need to ponder the possibility of incorporating the research, publication, and ethics into the undergraduate curriculum for better efficacy. Research is, and should be an integral part of medical professionals, especially those involved in training medical students and residents/specialists.¹¹ Data on how medical students with research backgrounds are doing in terms of research and publication are few and far between, but it is only plausible to think that

giving them the basic knowledge on the topic will make them better researchers, whether or not they do it as a mandatory act for their career development. This should lead to the development of the research culture in the medical fraternity, which is ultimately beneficial to the scientific community as a whole.

Reference

1. Bawden D, Robinson L. Information overload: an introduction [Internet]. Oxford University Press. 2020 Jun 30; Politics. | DOI | Weblink |
2. Tabora V. How search engines retrieve information - search and rank algorithms [Internet]. The Startup. 2019 Oct 21. | Weblink |
3. Sorooshian S, Parsia Y. Substandard journal management: wastage of authors' motivation. Publications. 2018;6(1):11. | DOI | Weblink |
4. van Witteloostuijn A. What happened to Popperian falsification? Publishing neutral and negative findings: moving away from biased publication practices. Cross Cult Strateg Manag. 2016;23(3):481-508. | DOI | Google Scholar |
5. Magar A. Scientific publications in Nepal. J Nepal Health Res Counc. 2012;10(22):243-9. | DOI | PubMed | Google Scholar | Full Text |
6. Khatiwada D. Scenario of scientific publication Nepal- past, present and future. J Coll Med Sci Nepal. 2018;14(3). | DOI | Google Scholar | Full Text |
7. Rice DB, Raffoul H, Ioannidis JP, Moher D. Academic criteria for promotion and tenure in biomedical sciences faculties: cross sectional analysis of international sample of universities. BMJ. 2020;369:m2081. | DOI | PubMed | Google Scholar | Full Text |
8. Gauchan E. Research paper writing: an obligatory criteria for promotion in medical colleges. Nepal J Med Sci. 2022;7(1):1. | DOI | Google Scholar | Full Text |
9. Weijer C, Dickens B, Meslin EM. Bioethics for clinicians: 10. Research ethics. CMAJ. 1997;156(8):1153-7. | PubMed | Google Scholar | Full Text |
10. International Committee of Medical Journal Editors. Defining the role of authors and contributors [Internet]. International Committee of Medical Journal Editors. 2022; Recommendations. | Weblink |
11. Sukhlecha A. Research publications: should they be mandatory for promotions of medical teachers? J Pharmacol Pharmacother. 2011;2(4):221-4. | DOI | PubMed | Google Scholar | Full Text |