

## EDITORIAL

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# Conducting research in developing countries: a challenging issue

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Biomedical sciences is among the most important fields of research and practice dealing with living organisms and human being.

The main objective of medical faculties is training students and scientists in order to investigate knowledge gaps and to find the best solutions by high quality researches. In other words, one of the major tasks of academic members of those faculties is to achieve this goal.

There are several challenges to reach this important goal. Some of the major challenges in conducting research in developing countries are as follows:

1. 'Mushroom-like' growth of medical faculties in under-qualified universities
2. employing poorly trained academics to teach medicine and medical research
3. inadequate-emphasis on the importance of ethics in clinical research and growing problem with plagiarism
4. Lack of integrated strategy for managing research activities
5. Lack of originality in choosing research topics by academics and students
6. Poor understanding the need for researching on individual problems rather than enthusiastic highly citable topics
7. Publication as a tool for academic promotion and more focus on number of publications rather than quality of publications<sup>1</sup>
8. Political and institutional pressure to improve international rankings leading to research misconduct i.e. 'publish or perish'<sup>2</sup>
9. negative Impact of research grants from pharmaceutical companies and its burden on society health and costs<sup>3</sup>
10. Trying to collaborate with research centers from developed countries to have prestigious publications as a *goal* not as a *tool*
11. Conducting pseudo-research activities by borrowing research topics using others' subjects rather than individual needs
12. Choosing 'prestigious' research topics with no attention to their populations' need,
13. Poor strategies to conduct sustainable and productive researches demonstrated by conducting haphazard attempts
14. Acting as 'research workers' for 'science masters'
15. More focus on 'drug-centered' versus 'life-style' research
16. Strict adherence to textbooks, guidelines and newly 'evidence-based medicine' as the 'passive' role by instructors instead of training research-minded students to provide 'new evidence in medical research and practice
17. Understanding and teaching classic forms of diseases ignoring the whole spectrum of them<sup>4,5</sup>

Some academics believe that limitation of research funds is the major barrier in conducting good research. However, there are other contributing factors such as academic and political integrity and more importantly stability.<sup>6</sup> Academic management of researches is very important to achieve high quality, productive and sustainable outcomes. We believe lack of research funding is among the less important factors in developing countries. In the absence of a strategic research plan, any funding will go astray.

Integrated and holistic approach in academic research is very important to overcome the aforementioned challenges. An example would be trying to control diabetes only through glycemic control without attention to other aspects of hyperglycemia.<sup>7</sup>

We encourage a global campaign to support quality improvement of medical research and education in developing countries.

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