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CAPACITY DEVELOPMENT OF UNDERGRADUATE MEDICAL STUDENTS FOR CONDUCTING RESEARCH IN PAKISTAN.

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There is a scarcity and decline of the research-oriented clinicians and clinician scientists globally especially in developing countries including Pakistan.¹⁻³ Inclusion of research education course into undergraduate medical and dental curricula varies worldwide from involving the students in elective activities pertaining to research to participation in mandatory research training course. Not only the inconsistencies are observed in the curricular content but also gaps are seen in the teaching/learning methods for research writing and publication and assessment of research activities.⁴⁻⁵

Majority of the students entering the medical colleges are not acquainted about the scientific research and its importance. Some of them develop interest in the scientific research activities during the course of study.⁵ Involvement of the undergraduate medical students in research offers an opportunity first time for many to get exposed to research activities, participate in these activities, and start gaining experience leading to the development among students the life long lasting habit of scientific thought and insightful temperaments toward critical thinking.¹

Getting involved undergraduate medical students in research merely as data collectors during their undergraduate training because of their easy availability as workforce may seldom benefited to the students but it may ultimately lead to dissatisfaction, disappointment and frustration.⁵ Prior to involving the students in initiating any research activity or project, it is crucial for the students to acquire the basic knowledge of research methodology, epidemiology and biostatistics; the key skills

required in analyzing and reporting the findings of medical research.⁶

Research needs to be indispensable component of undergraduate medical education and a critical academic activity to generate new scientific understanding and to update the existing ideas and notions of learners.⁶ Keeping this in mind Pakistan Medical Commission has recently incorporated subject of research in both traditional and integrated curriculum of undergraduate medical and dental curriculum and allocated 100 dedicated hours of study for the subject of research binding medical and health sciences universities to develop module on the subject of research and implement it. Hence, the capacity development of undergraduate medical students for conducting research in Pakistan is essential. Every institute must develop a module on research to be included in undergraduate study of both MBBS and BDS streams. The module must include contents pertaining to basics of epidemiology, research methodology, biostatistics and proposal writing; incorporate interactive teaching learning methods for training and contain assessment methods linked to the learning objectives/outcomes and teaching/learning methods. Institutes make it mandatory for every student to develop at least one research project, conduct research and get it publish in student's section of scientific journals. Besides developing capacity of students in research, enhancing capacity of faculty members is critical for educating the students in subject of research.

REFERENCES:

1. Stone C, Dogbey GY, Klenzak S, Fossen KV, Tan B, Brannan GD. Contemporary global perspectives of medical students on research during undergraduate medical education: a systematic literature review. *Med Educ Online*. 2018 Jan 1;23(1):1537430. <https://doi.org/10.1080/10872981.2018.1537430>
2. Hussain merchant AA. A National Virtual RESEARCH Training Workshop for 3800 Medical Students: A Mixed-Method Evaluation of a Novel Research Program. Preprint Research Square posted April 14, 2021. <https://doi.org/10.21203/rs.3.rs-384338/v1>
3. Bilal M, Haseeb A, Mari A, et al. (Knowledge, Attitudes, and Barriers Toward Research Among Medical Students of Karachi. *Cureus* September 09, 2019) 11(9): e5599. DOI 10.7759/cureus.5599
4. Mahomed S, Ross A, Van Wyk J. Training and assessing undergraduate medical students' research: Learning, engagement and experiences of students and staff. *Afr J Prm Health Care Fam Med*. 2021;13(1), a2559. <https://doi.org/10.4102/phcfm.v13i1.2559>
5. Shah J, Baral G, Dangal G, Neupane HC. Research oriented medical school curricula to nurture undergraduate in preparation for the future physician scientists: Relevance for developing countries. *JCMC* July-Sept 2021; 11 (3): Available online at: www.jcmc.com.np
6. Liaquat A, Tayyab TF, Saeed T, Azeem M, Naheed A, Riaz N, Tayyab AS. Interest in research among the undergraduate students of medical and dental colleges of Pakistan. *Professional Med J* 2020; 27(9):1942-1946. DOI: 10.29309/TPMJ/2020.27.09.4530



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