EDITORIAL

INCENTIVIZING UNDERGRADUATE MEDICAL STUDENTS - GATEWAY TO RESEARCH CULTURE

Research and development go hand in hand in every field of science including health care & medical sciences. Research culture needs to be embedded at all levels of training including medical school training.

The benefits of inculcating research culture in undergraduate medical students are scientifically proven[1-4]. Professionally, students learn enhanced intellectual literacy, research methodology, critical thinking and medical writing. The gains in their personal development include self-confidence, patience, disciplinary skills, independent thought process and work ability, ethical insight, communication skills and developing a bond with mentors and peers. The young researchers develop a better clarity of a career pathway, a sense of achievement on becoming a part of intellectual community and become better equipped for more demanding researches in their subsequent professional lives. A meaningful research culture in undergraduate medical colleges at national level needs to be developed.

A yet-unpublished study[5] carried out in 2017 in four public and private sector medical colleges of Rawalpindi - Islamabad concluded that 78.8% of undergraduate students found lack of motivation and incentive as the cause of disinterest in research among them. Other factors included curriculum overload (83%) and faculty-forced research (78.1%).

Incentivizing the medical students is one of the effective measures to develop research culture in an institution. At present, many of the volunteer students who are actively involved in researches are the ones who are aiming placements at foreign universities after graduation. The known incentives in the form of research grant, sponsored participation in conferences and workshops, certificates for research projects, cash awards, merit points in best student awards and paper presentations in national and international conferences; though in vogue, are not enough and not working to create a true research culture. Incentives need to be stepped up. Based on their academic performance as well as research abilities, placements for house-jobs, paid house jobs, offered station for house job, permission to choose a specialty for fellowship, placement for post graduate training and training abroad can be recommended.

A concrete practical and structured approach to promote research culture in undergraduate medical students at individual institution level is needed. There can be mandatory graded course-embedded classroom teaching starting from 1st year introducing the basic concepts of research. In subsequent years, the classroom under-graduate research experience (CURE) can be continued. The benefit of CURE has been proven by structured surveys called 'CURE' surveys originally designed by Professor David Lopatto of Grinnell College, USA[1]. Meanwhile optional summer research experience can be offered to voluntary students already practiced internationally called 'Summer undergraduate Research Experience (SURE); the benefits of which are validated by SURE surveys[1-2]. The graded mandatory mentored research projects by students groups in senior medical years can be very beneficial. This way, not a select group but all student population is exposed to hands-on research experience who otherwise would not venture for independent research voluntarily. Based on these activities undergraduate students can be given a status of 'Level I to Level V researcher for subsequent professional benefits.

Inculcating research culture in undergraduate medical students is a demanding task. Exposing the students to the joys and challenges of research is itself a challenge for the mentors. It is 'doing science' with the aim to teach students a more realistic approach to research individually and as team members and concrete efforts are needed to be made.

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Col Amina Nadeem
MBBS, FCPS, PhD
Professor of Physiology, Army Medical College
National University of Medical Sciences (NUMS)
Rawalpindi, Pakistan
aminanadeem@amc.nums.edu.pk