



### RESEARCH ARTICLE

## NATIONAL MEDICAL COMMISSION REGULATION 2020: IS THIS BOON OR EXECRATION FOR MEDICAL INSTITUTIONS IN INDIA?

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### Abstract

Indian Medical Council Act, 1956 with section 61(2) of the National Medical Council Act, 2019 published notification as, "Requirements for Annual M.B.B.S. Admissions Regulations, 2020" dated 20th October 2020, which replaced to replaces the "Minimum Standard Requirements for Medical Colleges, 1999 of the erstwhile Medical Council of India (MCI). The objectives of the notification were to harness modern educational technology tools to facilitate quality education and healthcare. It was pictured that competency-based medical education to be taught by medical degree holders and non-medical degree holders are less competent. Whereas research and publications part in medical education is completely ignored that is the sole of medical innovations. The reduction in basic sciences non-medical qualified teachers will hamper basic research and its translation to medical research. Authors searched relevant literature from online PubMed, Scopes, Elsevier, Google Scholar database. In conclusion, a proportionate number of basic sciences and integration with clinical subject faculties will eliminate the scarcity of high impact medical publications.

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### Introduction:-

Indian Medical Council Act, 1956 read with section 61(2) of the NMC Act, 2019 governing Regulations to establish or run medical colleges in India published new guidelines to establish new medical teaching institutions and to run existing medical colleges (1). It is a necessity to up-lift medical education and training for effective management of health services in this changing world. Therefore, there is an absolute requirement to enhance standards based on functional requirements.

In general remarks under schedule II (staff requirements) mentioned that non-medical basic science teachers in the department of Anatomy, Physiology and Biochemistry to be appointed to the extent of fifteen percent of the total number of posts required. Non-medical basic sciences teacher's strength is abolished in Microbiology and Pharmacology subject. Therefore, the number of pre and para non-medical qualification teacher's requirement slashed to less than fifteen percent in Anatomy, Physiology, Biochemistry subjects and zero percent in Microbiology and Pharmacology compared to earlier guidelines.

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Despite noble discoveries like knowledge of DNA structure complexity in 1953 and sequencing of the first human genome in 2003, the time devoted to basic science faculties in education and research in most medical institutions has been shrinking rather than expanding. Non-medical qualified teachers having basic science qualifications are in favour of improvement and up-gradation of competency based medical curriculum and newer medical teaching methodologies. However, replacement of basic sciences faculties from pre and para medical subjects will not serve the purpose of NMC. In fact, basic sciences faculties are the one who knows better facilitation of basic science subjects to new entrants in medical colleges.

Research and publication are an essential part from medical education and innovations. Basic science faculties are well trained in research, technology and scientific writing. Ray S and co-workers published a review of research publications from 579 under-graduate /post-graduate medical teaching institutions recognized by Medical Council of India reported that 57.3% of colleges did not have a single publication over 10 years (2005–2014) and only 25 (4.3%) institutions produced more than 100 papers a year (2). After a literature search, it was found that clinical faculties may not be oriented towards medical article writing, lack basic science knowledge, statistical techniques, commitment toward scientific writing, infrastructure, resources, funds, incentives, etc., are some well-known causes (3).

A renewed publishing house presented research paper findings in 2015 at science meet. In 2010, Indians researchers contributed the highest in the field of chemistry (38 per cent), whereas computer science (4.8 percent), health sciences (3.5 percent) and clinical medicine (4.3 percent) toward India's total research output was relatively low (4). In 2012, DhunikaDhingra and Devendra Mishra published paper on misconduct and violation of publication ethics by Indian authors. It was a questionnaire-based study conducted at medical colleges at various geographical locations in India. It was eye-opening feedback from research community. In this article percentage numbers mentioned as gift-authorship (65 percent), omission of authorship (33.5 percent), the duplication of submission (20.6 percent), fabrication of data (56.7 percent), plagiarism (53.5 percent) and many more. A simple reason for such reports was illiteracy of publication ethics and all researchers, basic sciences and health professionals take it seriously to improve our image globally (5).

Articles published over 30 years showed that basic science faculties played a unique role in clinical diagnosis (6). Basic scientists play a key role in generating the research discoveries that are translated into applications that improve human health. Clinicians are not actively involved in basic research uncritically appraise research articles. Many research papers are published significant limitations (7). Basic medical faculties enriched in technical advances can be assets to clinical faculties to enhance clinical diagnostic skills (8). This integration can enhance patient care and clinical decision-making.

Sung and colleagues described a newer branch of health research known as Translational Research or Translation Medicine or Clinical Translational Science. It represents the transition between basic laboratory research and evidence-based practice. It is classified into 2 phases called Translation research 1 and Translation research 2. Translation research 1 is the testing of human's specimens; and Translation research 2 is the application of information obtained into clinical practice and health decision (9).

According to the National Medical Council's regulation 2020, strength of basic sciences faculties who acquired scientific and technical competency are less than one percent in medical institutions across the country. It will come adversely on quality publications and inventions that are lacking in NMC regulations. Also, there will be road blocks for translating basic research knowledge to evidence-based clinics and quality publications due to lack of scientific oriented pool. As mentioned by many authors in their publications, Indian medical faculties produce very less and poor quality medical publications (10). Translational Science is in close proximity of pre-clinical, para-clinical, and clinical specialties medical research, where basic scientists and medical professionals entail a close collaboration within academia, healthcare establishments and related service industries [11].

In conclusion, the lack of integration between basic and clinical science faculties, medical education and educators shall be in a dilemma how to translate information/knowledge from bench to bed and vice versa. Due to the lack of integration between both phases of translation research stake holders, it is difficult to disseminate knowledge to medical aspirants and generate useful information in the interest of health-care delivery. To minimize obstacles of reduction in strength of scientific human resources is hope of ray for the next generation of scientists, physicians to advance the human health condition.

**Authors' contribution**

All authors read and approved the final manuscript.

**Competing interests**

The authors declare that they have no competing interests.

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