

## Medical Council of India's Amended Qualifications for Indian Medical Teachers: Well Intended, yet Half-hearted

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The Medical Council of India (MCI) must be commended for its efforts to introduce definitive criteria for appointments and promotions for teachers in medical institutions. On June 8, 2017, the MCI issued a circular [1] to amend the Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998 (henceforth Regulations, 1998) [2]. The amendment clarifies the minimum qualifications required for various postgraduate teaching positions in medical colleges. It indicates MCI's sustained engagement with qualifications of teachers in medical colleges, with the aim of enhancing the quality of teaching and thereby the quality of medical professionals passing out. However, we believe that these efforts continue to be inadequate in addressing the varied issues that face medical education and the educators in India.

Some of these issues are: (i) the lack of transparency in the manner in which new medical colleges are approved, (ii) the variation in the proportion of private and public medical colleges across states, (iii) the lack of change and innovation in the undergraduate and postgraduate medical curricula to keep up with changing needs, (iv) the poor uptake of newer teaching-learning methods, (v) the poor quality of teachers in several medical colleges, (vi) methods used to assess teachers during selection and promotions, and (vii) failure to assess the impact of policy changes (such as a recent increase in the number of postgraduate seats) on the quality of medical education and training.

In this editorial, we focus on one of these issues, *ie*,

the appointment and promotion of teachers in medical colleges. The MCI had on September 3, 2015 [3] stated its requirements with regard to research publications for eligibility for promotion of faculty members in medical colleges. This had been critiqued [4,5] mainly on four counts: exclusion of publications in 'electronic-only' journals from consideration for assessment of performance; awarding points only to original research articles or papers; awarding points only to first or second authors; and, the choice of indexing services for assessing the quality of a journal. While lauding the MCI's efforts towards improving the standards for teaching faculty at medical colleges in India, these critiques argued that an ill-informed framework for determining eligibility for promotion is likely to be self-defeating and even harmful to the profession.

### *A few steps forwards and a few steps backwards*

The 2017 Amendment [1] is noteworthy for it states that in order to be eligible for assessment, a paper must be published in "indexed" journals. This appears to be a step in the right direction because indexing indicates that a journal meets certain standards and quality within a specialty, specific to a particular index. However, in this amendment, the MCI has not specified any particular index(es). Thus, possibly the list of indexes previously specified in its 2015 order will continue to apply. Let us look at this issue more closely. Accepting only the MEDLINE-indexed journals would exclude some research in valuable allied fields, such as medical humanities, basic sciences and social sciences as applied

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to medicine. Thus, inclusion of other indexes may be useful for recognizing these diverse related disciplines beyond the pure health sciences, although with due diligence. For example, some indexes have little credibility as they are known to include pseudojournals (also known as ‘predatory journals’) in their listings. Hence, it is important that MCI specifies only those indexes which are reputed to have quality journals. The 2015 MCI list of eligible indexes has been faulted on this score [5]. Aggarwal and colleagues [5] had suggested the following list of acceptable databases: Medline, PubMed Central, Science Citation Index, Embase/Excerpta Medica, Scopus and IndMED. The latest amendment missed out on an opportunity to revise the list of eligible indexes.

The amendment does not specify whether or not papers published in “e-only” indexed journals are acceptable for assessment. Here too, possibly the stipulation in the 2015 order, that e-journals, are not included, will continue to apply. Currently, many e-only journals (*e.g.* PLoS group, BioMed Central, *etc*) are comparable in quality to, and at times even better than, those published as hard copy. Their inclusion would allow a much wider range of journals for the faculty to choose from for publishing their work.

Unfortunately, as with Regulations, 1998 [2], the 2017 Amendment [1] also limits the credit for authorship to only some of those listed on the author byline. Unlike the first version in which those listed as the first and the second authors were eligible, the amendment gives the credit for a paper to only the first author and the corresponding author. As critiqued earlier, this approach inhibits collaborative research and could be counterproductive by undermining the advancement of knowledge. Some of the best research today is multidisciplinary and multi-author.

### ***Problems untouched***

The MCI regulations, even after the recent amendment [1], are problematic in other aspects too. These lay down two criteria to assess a candidate’s eligibility for a particular position: duration of service and number of research publications. One would expect the parameters assessed during appointment and promotion to be aligned with the responsibilities of teachers in medical colleges, with a strong convergence suggesting appropriateness and sufficiency of the criteria. In clinical or paraclinical departments, medical teachers have three primary activities; providing clinical or laboratory/imaging service, teaching, and doing research; which vary for different specialties. However, in most medical colleges, irrespective of specialty, the research activity forms a

small part of the total work of a medical teacher. Hence, any assessment of only research output without an assessment of the other two domains does not appear to be reasonable. What about the other two activities? Provision of clinical or laboratory services and teaching are integral to the core work of a medical faculty member. The assessment, if any, of these domains is only by the years of service put in. This appears unfair. The MCI regulations should address the issue of assessing medical faculty in all the three activity domains. Undue focus on research and not on the other two domains might prove to be detrimental both to the training of medical students as well as to clinical work.

Failure of the faculty to do research is a well-documented problem in Indian medical colleges. It has been argued [6] that this is due to commercialization of medical education in the country. However, we believe that this phenomenon is multifactorial. One major reason may be a lack of interest and training to do research on part of the teachers, or of lack of infrastructure to facilitate research on part of the institutions. Also, good research requires financial resources – and most of the institutions, whether funded publicly- or privately have no or little funds dedicated to this activity. These factors may need to be corrected first, before we can expect research to be an important criterion for assessing eligibility for appointment and promotion of medical teachers.

Lack of adequate funding too discourages the MCI’s approach. India has nearly 450 medical colleges. Let us assume that each college has around 100 teachers, and that each of the nearly 45,000 teachers needs to publish a research paper every three years. This translates to around 15,000 research papers a year. In addition, around 20,000 students join a medical postgraduate course every year in the country, and each of them has to write a thesis. Let us assume the “most optimum” case scenario – that each thesis results in a paper with a student and his teacher-guide as the two eligible authors. Even with this unlikely scenario, we would require to generate at least 20,000 new research ideas every year – a formidable task. For these research works to be novel and publishable, a large proportion of these ideas would need funding – which is currently not available.

Another important consideration is whether there are sufficient peer-reviewed, “indexed” journals to publish this large body of work. The requirement to publish by teachers in Indian medical colleges and universities has seen a proliferation of “predatory journals” in India [7-9]. We are not arguing that research may be altogether abolished as a criterion for eligibility and assessment of

medical faculty. It is known that good research institutions globally and in India are sought after by students and patients alike, as these are considered better centres for learning and providing a better quality of care. However, whether the quality of teaching and patient care can necessarily be improved by mandating research of whatever quality remains uncertain.

Thus, it is not reasonable to make an assessment for promotion of a medical teacher solely on the basis of research activity – that too by counting the number of publications.

### *The way forward*

It is evident from the above that the assessment of medical teachers must encompass all the three domains of their activities. Furthermore, the assessment should focus not on quantity, as is done currently by counting only years of service or number of papers, but on the quality of work in each sphere. Unfortunately, we will be told that “assessment of quality” would not be objective, and would be liable to bias and manipulation. However, this is an excuse for not doing what seems to us the right thing to do. Around the world, as in many fields in our country, employees are assessed using the so-called “subjective” criteria, with sufficient reliability. Setting up such systems – though admittedly hard – is not impossible. These will surely take time, effort and commitment to set up. But if we unquestioningly accept the simplistic tools such as publication count, we will never move to a higher plane. Hence, as a profession, we need to initiate debate for moving towards better systems of assessing quality. Such an assessment system would necessarily mean a multi-pronged evaluation – by peers, students as well as administrators.

Variation is an important rule of nature and all medical teachers cannot be expected to have exactly the same skill set. Thus, one of them may be an excellent researcher, but not a particularly good teacher. Similarly, someone else might be better at providing a laboratory service than doing research. This is in fact desirable since it allows some persons to excel in one specific area beyond the average skill level expected, and should be encouraged. This requires that individuals with different skill sets and inclinations be provided the opportunity to do more of what they are good at and less of what they may not be so skilled at. The proportion of time spent on the three core activities referred to above could thus vary between different teachers. Thus, it would be reasonable that the assessment of medical teachers for the quality of work would be a weighted average of the quality of work in the three domains, with the weights decided by the pre-defined proportion of time spent by each teacher on

activities in these domains. Clearly defining each faculty member’s job description at the time of appointment or during the course of service will facilitate and/or enable such an approach to assessment.

Each core activity could be assessed using different parameters. Teaching should be assessed by the end user; *ie*, the student and the performance of students in an assessment should be part of the assessment of a teacher. Similarly, peers should sit in on teaching activities and provide a peer evaluation. These suggestions are neither exhaustive nor necessarily tested to be appropriate for our milieu. Hence, a constant evaluation and evolution of these methods would be essential.

Research should be evaluated but not by the number of publications. The quality of a medical faculty’s research output should be assessed. This would include a peer evaluation of the individual’s select few publications – a smaller number at the time of selection and an increasing number with each step in the academic ladder. For example, two best papers at the time of initial selection as a faculty member, five best at the next level, and seven and ten in the further steps. As almost all medical faculty positions in India are tenured, there are few who would make the effort to write a grant application and obtain funding. Those who do so should be assessed on the quality of their grant applications or the amount of funding obtained.

How does one assess the service component of the medical faculty? This could be difficult to do but an effort should be made to use laboratory and clinical audits, and peer and patient assessment and feedback.

All this must be done transparently. The assessors, the method and process of assessment and the final evaluation must all be transparent. Anybody can make errors and hence there must be a transparent system of appeals and evaluations of appeals. Questioning a decision with sound reasoning must be permitted but the process must be free of corruption.

We are aware that some of these suggestions may appear radical in the current Indian scenario. We believe that the Indian medical education system is in urgent need of radical corrective steps, if we are to prevent it from continuing on the slippery slope that it presently is on. Minor tinkering, such as the MCI seems to be engaged in, will not do.

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