**TITLE: Why Publication becomes a Pressure – The Other side of the Glass**

**Author: Dr. Dinesh Kumar. V**

**Affiliation and corresponding address:**

**Assistant professor,**

**Department of Anatomy,**

**Jawaharlal Institute of Postgraduate Medical Education and research**

**Puducherry – 605006**

**India**

**Mobile number: 9994038701**

**Email:** [**dinesh.88560@gmail.com**](mailto:dinesh.88560@gmail.com)

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**Abstract:**

The competition existing among young doctors, in the “publish or perish” era has many unknown faces. Excessive emphasis on scientific output and judging the competency of a young doctor solely by the number of publications may also affect other clinical and educational activities of health profession, forcing him / her to join the rat race. The ostensible regulations formulated by the Medical Council of India for promotion is subjected to infinite rounds of debate in the Indian academia. Most debates takes into account the perspectives of the doyens of Indian publishing arena. But, the voices of the huge sector of young doctors largely go unaddressed. This correspondence is an earnest attempt to cross section the existing scenario and the hurdles, a young Indian doctor has to overcome to embark his name as a astute researcher.

**Why Publication becomes a Pressure – The Other side of the Glass**

I read the editorial by *Bandewar S et al*. (1) related to the Medical Council of India’s amended qualifications for medical teachers with great interest. In this correspondence, I would like to throw light on few issues which are seldom addressed in the Indian research academia. With publications being given undue weightage in the academic job market and the number of applicants outnumbering the number of secured jobs available in central institutes, “publish or perish” attitude has become the driving force for academicians.

1. **Academic job market of India – where only Curriculum Vitae counts**

The MCI regulations for teachers (2) ostensibly streamlines the process of promotion and introduces objective criteria of having two publications in “indexed” medical journals, thereby narrowing down the triadic responsibilities of teaching, patient care and scholarly creativity. It is not an uncommon scenario in medical colleges, where new faculty showing serious concern about their teaching and / or patient –care related commitments are often warned about their “misplaced priorities” (3). The entanglement of the tenure, promotion, appraisal, let alone stature and recognition in one’s field to the quantity of research articles faculty members produce, makes the academician or clinician to join the publication rat race. In China, articles listed in Science Citation Index (SCI) publications are considered as a priority or must for candidate in medical job fairs (4). This pressurizes the young doctors because they find it difficult to conduct basic scientific research which is beyond the scope of their profession and clinical research requiring long-term follow-up or large case numbers, which are seldom achievable for a young doctor (4). Equating the same for India, we can ascertain that young doctors, who are interested in pursuing jobs, often find it difficult to balance their clinical practice, teaching and research. With the reduction in the number of teaching / clinical faculty required for 150 students (as per MCI norms), the time available for committed research is still more truncated.

1. **The repercussions of “original articles” and “specialty” journals**

The approach of MCI in awarding credits only to original research-based articles can also be considered as a restrictive approach (5), as this forces the young doctors to publish two original articles in the stipulated time. As mentioned by *Bandewar SVS et al.* (1), this translates to around original articles 15,000 research papers a year. Considering an optimal journal with 2-3 issues / year, the slots available for original articles in total would be 10 – 12 and this mandates a huge number of MCI approved journals to accommodate the same. If we take into account the space required for dissertations (around 20,000 per year) the situation becomes still more bizarre. MCI circular (1 – point c) (5) also insists on publications in specialty journal/journal of a national / international society. This amendment was suggested, holding the fact that, specialty specific journals evokes the maximal reach of target audience and in-turn rigorous peer-review can be established. But, the number of reputed indexed journals ear-marked for a particular specialty is 3 -5. This disproportionate ratio constitutes the basis for the veritable proliferation of predatory publishers which embraces the vast majority of the articles not able to find place in reputed journals after a long pursuit. To quote an example, an anatomist who did his post-graduate thesis related to genetic techniques, faced repeated rejection in reputed ‘specialty specific’ journals on the ground that the researched topic is beyond the scope of the journal. This also repels the young researcher from doing researches in the fields of medical education and bioethics, leading to the impoverishment of these domains in our country (6).

In addition, the mandate for original articles, excludes other forms of medical writing such as brief communication, letter to editor, review articles and commentaries. This excludes the young doctors from writing systematic / narrative reviews, which involves higher order thinking skills and critical appraisal. Engaging in research is encouraged as it is likely to develop analytical skills and can drive the practice of evidence-based medicine (7). To quote another example, if a young doctor observes an interesting variation or case report, he / she tries to pool up samples of same sort and thereby try to make it as a study. Case reports or short communications loses their significant merit in their process and the result of the ‘study’ doesn’t contribute significantly to the scientific literature. In concordance with *Bandewar S et al.* (6), we humbly request the MCI to consider all forms of medical writing, which would result in documenting experiential knowledge related to the medical profession.

1. **Bloated Authorship – inflating the profile without contributing much**

Authorship inflation is another serious offender which not only confers the “pseudo-halo” on those who have meagre research prowess but also denies the competent doctor, of his deserved chances. *Prosperi M et al.* (8) analysed more than 21 million MEDLINE / PubMed-indexed papers published worldwide and found a modest rise in kin co-authorship globally. According to authors, this is a big issue in India, Italy and Poland. On one hand, we would like to welcome the recommendation of MCI (2), which authorizes only first and corresponding author to claim the credit for a publication. This would bell the cats like “gift authorship” and “academic nepotism”. Publications can be regarded as a form of international currency that transcends geographical borders (9) Owing to the fact that most academic institutes use the number of publication as a sole criteria for recruitment, some younger faculty try to add their names in the list of authors, thereby giving an artificial added advantage over others. On the other hand, this recommendation hampers effective collaboration taking place at inter-departmental or intra-departmental level. Nevertheless, this issue can be circumvented if the institute review board strictly adheres to specify the role of investigators before commencement of the project and engage with the standards set by Committee of Publication Ethics (COPE) and the International Committee of Medical Journal Editors (ICMJE) (6). We humbly request the responsible authorities to consider the publications of individual faculty in case to case basis, before taking decisions. The scholarship of an individual faculty shall be determined by the contribution he / she had made in uplifting the department and specialty he / she belong to and not solely by the number of publications or *H-* index.

1. **Wait…wait…cycle – how a young doctor turns pessimistic in research?**

In the study (10) conducted in India regarding the current views of faculty regarding publications, 35% respondents felt dejected because of the undue delay in publication process. In many instances, the rejection is due to deficient grammar, inadequate references in support of their statements and defect in conduction of research (11). 57.3% of the respondents in the study (10) felt that the mandate regarding publications induces unhealthy competition and 40% felt that mandatory publications have become a burden to them. The ideal research process includes conception of idea, literature review, protocol submission and institute review board clearance, execution of research and writing of paper. In the publication cycle, it takes another 6 months to one year. In the meanwhile, if another researcher arrives at the same conclusion, serendipitously, then the one who publishes the research first gets the complete credit. In our country, where many institutions lack infrastructure to facilitate quality research, the research hypothesis framed by two independent faculty at two different places might overlap. So, a young doctor who has intrinsic motivation to research is keen in publishing his research finding in selected journals, that too in a short span of time, so that they are not willing to carry out time consuming researches (12). It is not an uncommon situation to find a young doctor aiming at a particular journal, submits his work and after waiting for months, receives a negative response. Following that, the time-intensive process of reformatting for another journal submission begins. After facing three or four rejections, and after wasting a year in publication pipeline, he / she develops pessimism over his / her research work. In other words, the stress associated with publishing experimental results, before others and in a reputed (of course, ‘specialty specific’) journals can drain the young doctors much of practising science and conducting research in its truest sense (12). In American medical field, it has been estimated that, burnout of physicians has led to fewer publication and there was an estimated 14.9% reduction over a 15-year period in one specialty alone (13). This makes the loss of scientific discovery even more marked and enormous amount of research findings to be locked in the form of “grey literature”. (14)

Most young doctors, who work in a relatively unequipped infrastructure, amidst continuous duty hours, choose research questions just to suffice the “research” component of the degree and continuity of the research is also not maintained (15). If we consider the output of vast majority of the publications, we could sense that the clinical data emerging from diversity of Indian population is not documented or appraised critically. So we still have to rely on data generated in other countries with very different genetic and physiological backgrounds for diagnosis and prognosis (15). This is largely due to the fact that young researchers are keen to work upon “fields of interest” which gain them grants and enable them publish at international platforms, neglecting scientific inquiry into more regionally relevant topics (16). This would possibly change the above mentioned tyranny of trivia to some extent. Adding to the concern, it has been stated that studies with negative results are less likely to be published promptly and seldom proceed from abstracts to full reports (17). We humbly suggest that weightage should be given to all research works including intramural funded projects, irrespective of publication status, so that, a young doctor is acknowledged by his / her acumen to conduct research and not by sheer ability of getting it published in journals.

**Redefining the academic professoriate – to recognize the really deserved**

The ‘pressure to publish’ trend among the young doctors, after being has some dysfunctional aspects associated with it. Since, excellence in teaching and ability to render humanistic care are not highly valued in deliberations to grant promotions and recruitment in prestigious institutes, some faculty members get caught in the dyadic web of intrigue / narrow self-interest and “who first gets there” syndrome (18). It still more becomes inappropriate when the interest is not to share or to do things together, but rather falls within the category of espionage and nosing for one's own benefit, which hampers collegial relationship amidst faculty (18). With the increase in the number of medical colleges, the quest for scholarly creativity (research and projects), often leads to development of self-centred attitude, alienation from peers and academic nepotism. In a recent study (19) among Dutch biomedical researchers, many respondents had experienced disputes among colleagues working in the same department, mostly regarding authorship sequencing and owing to this, the co-operation among researchers got crumbled. In his report (20), Ernest Boyer suggested the need of striking the balance among teaching, research and service. To achieve this, we need to develop better ways of assessing the scholarly performance of the faculty. Noted Institutions like Harvard Medical School, Stanford Medical University and The John Hopkins School of Medicine have developed their own guidelines for faculty recruitment and promotions. Initiation of projects / implementing novel teaching methodologies / redefining the curricular needs that address important questions or having the potential to change the practice of medicine or education should be given due weightage in the promotion process (21). Similar to University Grants Commission (UGC) guidelines (22) for promotion, indicators for assessing medical faculties also could be well classified into three domains encompassing teaching, learning and evaluation related activities [category I], co-curricular and professional development related activities [Category II] and research and academic contributions [Category III].

**Conclusion**

We conclude that the notion of considering publications *per se*, as one of the criteria for promotion is desirable and it aims at honing the inquiry based approach and critical thinking. But, clinging on to publications as the sole criteria for assessing the scholarship of a clinician or academician, has its own disadvantages and moreover might hamper the much needed collegiality of the medical profession. We would like to humbly represent that, owing to these issues, some committed doctors, who have a great acumen in humanistic patient care or soulful teaching are not getting their due recognition in the red-taped academia. Research is a quintessential trait for the present day Indian medical graduate. But, it should pertain to the elements and micro-analytics of the field he belong to and should be measured, taking into account the goals it have, changes it can achieve and reflective critique nature it possess. In this way, a young doctor would enjoy the bliss of conducting research and not consider it as a burden.

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