

# Role of Journal Clubs in Undergraduate Medical Education

Sir,

The article on "Training in clinical research"<sup>(1)</sup> highlights the need for research-oriented medical education in the country. While there is no doubt in the fact that undergraduate biomedical research needs to be bolstered with all enthusiasm, it is also true that cost implications often become the limiting factor in exposing undergraduate students to large scale clinical trials in resource-limited scenario. This calls for alternative approaches to stimulate critical appraisal skills among medical students. A journal club can be one such alternative modality. Journal clubs consist of a group of individuals who meet to discuss the scientific literature. Like many other things, the credit for the establishment of the first formal medical journal club goes to William Osler, who founded the journal club at the McGill University in North America in 1875. While journal clubs are very common in the postgraduate education system, they have been relatively underused in the undergraduate medical schools. However, these journal clubs can be very effective platforms where the students can gather first-hand knowledge on analyzing, evaluating, dissecting, and utilizing the scientific literature. In the era of evidence-based medicine, analyzing the quality, validity, and relevance of the evidence is a skill that must be taught from the early medical school days.

Journal clubs and letter writing exercises have been shown to be innovative ways of teaching critical appraisal to medical undergraduates, and the response from the students have also been positive.<sup>(2,3)</sup> Journal clubs have also been shown to motivate reading behaviors of physicians in-training and also increase their knowledge of epidemiology and biostatistics.<sup>(4)</sup> Planned, structured sessions with well-defined learning objectives, suitably designed to evoke participants' interest and attendance are essential to the functioning of a journal club.<sup>(5)</sup> The functioning of the clubs can also be assessed through periodic internal assessment and evaluation tests. The number of correspondences (or, letters to the editor), getting accepted for publication, based on the specific questions remaining unanswered regarding the original articles discussed may also be an indicator of the efficacy of the club.<sup>(6)</sup> The published letters to the editor along with the authors' reply may be discussed in a subsequent session, thereby further enhancing insight into the topic.

In the Indian undergraduate medical education system, epidemiology and biostatistics are generally taught under the subject of Community Medicine (also called Preventive and Social Medicine in some universities), and the subject is generally included in the 3<sup>rd</sup> professional MBBS part-1 (6<sup>th</sup> and 7<sup>th</sup> semesters). Since basic knowledge of study designs and biostatistics are essential to comprehend original research articles or systematic reviews, and since by the time a student enters 3<sup>rd</sup> professional tenure, he/she possesses appreciable knowledge of the basic medical and/biological sciences, journal clubs can be introduced at this stage onward. Besides, this is the phase of transition of a student from a predominantly theoretical approach of the earlier years, to a more clinical/field-based approach in the later, and translation of evidence to practice needs to be taught at this stage. Feasibility of conducting journal clubs for huge batches of undergraduates can be a potent problem, which can however be circumvented by using the tutorial/discussion classes which are generally held to cater to smaller subsets of a batch. Online portals/communities/discussion threads/listservs can also be used if logistic problems become too troublesome.

Making journal clubs part of the medical school curriculum may thus benefit the purpose of exposure of students to the world of frontline research, and pave their way for future entry in the world of translational research.

**Tamoghna Biswas**

Medical College Kolkata, 88, College Street, Kolkata, India  
E-mail: tamoghnab@gmail.com

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