Medical trainees (i.e., students and residents) provide relevantly insightful perspectives pertaining to their 'medical education' at both undergraduate (i.e., medical school) and graduate (i.e., residency training) levels. Therefore, promoting related trainee-authored publications about such matters is critically important. However, unfortunately, not many medical trainees are able to voice their important education-related research findings in peer-reviewed journals. ‘Journal-level’ proposals to increase trainees’ scientific scholarship are always warranted. Herein, medical journals are called to play an innovative pivotal role in further promoting the desired trend of trainee-authored publications. To that end, periodically throughout the year, mainstream (general or education-focused) medical journals are encouraged to facilitate supplements entirely dedicated to trainee-authored research contributions in the field of ‘medical education’. The grounds, dynamics, challenges and benefits of this supplement-based approach are discussed.

KEY WORDS: Journal supplement, medical education, medical resident, medical students, research publication

Supplements to increase trainee-authored publications pertaining to medical education: A graduate’s viewpoint

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Medical trainees (i.e., students and residents) provide relevantly insightful perspectives pertaining to their ‘medical education’ at both undergraduate (i.e., medical school) and graduate (i.e., residency training) levels. Therefore, promoting related trainee-authored publications about such matters is critically important. However, unfortunately, not many medical trainees are able to voice their important education-related research findings in peer-reviewed journals. This is because there is a limited number of general medical journals that accept research contributions pertaining specifically to ‘medical education’. Moreover, despite several medical education-focused journals exist in place, medical students are unable to communicate their findings due to various reasons. Such reasons include: (i) the extremely limited spaces in main issues which can render journals unable to accept a paper for publication even if the paper reaches acceptable standards for publication, (ii) the associated exorbitant article processing charges (APCs) which can deter students from submitting their research work to such journals, and (iii) the relatively unlikelihood to accept submissions from inexperienced and naïve trainee-authors. Thus, ‘journal-level’ proposals to overcome the above-mentioned limitations, and increase trainees’ scientific scholarship are warranted.

Herein, medical journals are called to play an innovative pivotal role in further promoting the desired trend of trainee-authored publications about ‘medical education’. To that end, periodically throughout the year, mainstream (general or education-focused) medical journals are encouraged to facilitate supplements entirely dedicated to trainee-authored research contributions in the field of ‘medical education’. These supplements can be commissioned by journal editorial boards, scholarly societies or medical schools. Approaches that maximize the pool of...
potential contributors for the trainee-authored *supplements* are warranted. Primarily, such approaches comprise: (i) advertising the notice of ‘call for papers’ during scientific conferences, and (ii) posting the notice of ‘call for papers’ on websites, blogs and social media. All trainees—irrespective of their publication record, level of training and country of origin—should be welcomed to submit their research contributions.

The themes of these *supplements* may be diverse and include the major domains, such as: curriculum, teaching, learning, assessment, career paths and continuing professional development. Moreover, the *supplements’* contents may be specified to a particular level of medical education, such as: undergraduate, graduate and postgraduate education. In addition, the *supplements’* contents may be made of interest to differentreadships, such as: local (i.e., a single medical school), national (i.e., multiple medical schools within a country), regional (i.e., multiple schools within a geographical area) or international (multiple schools across the world) readership.

Nevertheless, it should be acknowledged that the “specificity” of the *supplement’s* theme, level of medical education and country can unfavorably render the *supplement* relevant only to a limited readership—a downside outcome that should be avoided, whenever technically possible. Thus, *supplement-level* measures to maximize the target audience are warranted. Fundamentally, the general role of thumb is to diversify the themes, levels of education and countries of the published materials in the *supplements*. Specific measures to maximize the *supplements’* target audience include: (i) conducting comparative research studies from two or more geographically different countries, and highlighting similarities and differences, (ii) disseminating reports of novel ideas irrespective of their success or failure, and highlighting the implication points, (iii) discussing hotly debated topics from multi-international perspectives, and underscoring the key take-home messages, (iv) investigating neglected, despite important, areas of research that are poorly documented in literature, and (v) if feasible, contributing high quality reports of systematic reviews and meta-analyses that communicate informed solid evidence in medical education. The above-mentioned measures are, to a greater degree, anticipated to increase the overall pool of target readership of such *supplements*.

The contributions of the trainee-authored *supplements* should originate, to a larger extent, from the trainee-run research activities. Importantly, the contributions must include the trainees as the first and/or last author(s) to attribute the highest roles of substantial research contributorship to the trainee-authors. Unsolicited trainee-authored submissions should be diverse, and include: full-length research articles, short communications and letters to the editor. Conversely, solicited submissions should be largely reserved to erudite trainee-authors in the form of invited full-length review articles, mini-review articles, editorials and viewpoints. If deemed pertinent, some trainee-authored contributions may be accompanied by associated expert-authored commentaries to substantiate the research findings or even express opposing perspectives.

Fundamentally, the peer-review process by editors and reviewers is grounded on the central notion that peer-review is objective, rational and free of partiality. However, this is not always the case as occasions of bias by editors and reviewers are not uncommon. Journal editors may decline research submissions without a fair review, while others may accept research submissions owing to reasons of inter-personal social favors. Likewise, reviewers may have unintentional bias towards research submission owing to incompetence in the area of research, while others may exhibit intentional bias towards select research submissions owing to reasons of enmity, jealousy or undeclared conflicts of interests. Indeed, the subject of “fair” peer-review is always a concern—not only for the medical trainee-authors, but also for the highly intellectual academics. An online survey of high-ranking universities showed that fewer than half of the scholars agreed that the peer-review systems of biomedical journals were (48.4%), scientific (47.5%) and transparent (25.1%). The bottom line, for the trainee-authored *supplements*, while the peer-review process should still be ‘rigorous’ conforming to the highest level of scientific integrity and soundness, it also should be ‘constructive’ and ‘bias-free’ with multiple opportunities for the trainee-authors to resubmit revised drafts. Along these lines, a legitimate question pops up: how can it be ensured that the submitted contributions are not reviewed ‘leniently’ just because such contributions are written by trainees? One plausible suggestion is to follow a double-blinded peer-review policy—i.e., the identities of both authors and peer-reviewers are concealed. If a single-blinded peer-review policy is followed, then editors should instruct peer-reviewers to evaluate research submissions based on scientific, methodological and analytical soundness, and not based on authors’ academic status, reputation, previous published work or country of origin. Notably, the bar for accepting research contributions in such *supplements* should not be lowered, and it is critically important that the journal’s integrity, independence and academic standing should be upheld at all times.

The cost of publication of these trainee-authored journal *supplements* is a challenging concern. To overcome this hurdle, private and public sectors—for example, medical schools, scholarly societies, pharmaceutical companies, healthcare institutes and charitable organizations—are encouraged to contribute funds to financially support commissioning these *supplements*. Most importantly, adequate funds should be allocated to ensure *supplements* are deposited in ‘MEDLINE/PubMed’ and published ‘open-access without article publishing charges’ in order to warrant scientific reputation and wider visibility to the trainee-authored publications, respectively. Because external sponsorship can unfavorably bias the editorial policies (for example, quality of peer-review) and content of materials expressed in the *supplements*, the commissioning journals should abide by the ‘Supplements, Theme Issues, and Special Series’ principles that are devised by the International Committee of Medical Journal Editors (ICMJE).

Credit should be given to *Journal of Postgraduate Medicine* and *Education for Health* journal for introducing ‘students
corners’ and ‘student contribution’ sections, respectively. Both sections are valuable venues to voice students’ perceptions and concerns in MEDLINE-indexed journals after fulfilling the compulsory rigorous peer-review. Herein, the suggested proposal of supplements join forces with the above mentioned student-friendly submission venues to further support the advancement of the trainee-authored publications.

A limitation of this proposal should be acknowledged—i.e., the proposal of supplements is not backed by substantial evidence that it will or may work in promoting the trainee-authored publications. However, irrespective of its success or failure, the proposal of trainee-authored supplements has numerous projected benefits that can rationalize its trial. Such benefits include: (i) acknowledging the important trainees’ research perspectives on issues pertaining to their ‘medical education’, (ii) fostering the notion of scientific research publishing among student- and resident-trainees, (iii) providing a convenient and well-reputed platform for trainees to disseminate their scholarly research work, (iv) reducing the likelihood of trainee-authored publications in disapproved ‘predatory’ journals,[9,10] (v) minimizing the probability of trainee-authored publications in the unfavorable ‘medical student journals’,[11] (vi) stimulating trainees to partake future research activities, and (vii) boosting up trainees’ pursuit of the largely neglected academic medicine and clinician-educator professions.[12] Potential challenges for this proposed supplement-based approach include: (i) the call for trainee-authored contributions that can ‘survive’ rigorous peer-review, (ii) the limited readership that can stem from the ‘specificity’ of the supplement’s contents, (iii) the cost of publication that may render the production of the supplements financially unfeasible, (iv) the potential editorial bias and disintegrity that can arise from the external sponsorship of the supplements, and (v) the uncertainty that this proposal will likely succeed in augmenting the number of trainee-authored publications.

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Conflicts of interest
There are no conflicts of interest.

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