

Collaborative writing for clinical educators: recommendations from a community of scholars

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Abstract (200 words)

Clinical educators who wish to engage in scholarship in health professions' education (HPE), are ideally poised at the intersection of educational theories and their application to educational practice. However, the burden of clinical practice does not often allow the time and space for scholarly writing. Being part of a collaborative writing team, incorporating members with varying levels of expertise, from different healthcare professions, and at different stages of their career, can provide valuable opportunities for clinicians to contribute to scholarship. Such collaborations can also bridge the gap between scholarship and educational practice in clinical settings. In this paper, we emphasise the benefits of collaborative writing, describe challenges for clinical educators in starting writing projects, and identify potential solutions. We outline a systematic approach to collaborative writing grounded in literature and our own experiences. Three key concepts underpin the provided recommendations: types and standards for scholarship, leadership and followership, and communities of practice. Psychological safety, mentoring and a growth mindset are emphasised as integral to successful team projects. Finally, we argue that collaborative writing groups in clinical education can be powerful communities of practice where the overall contribution to the field can be greater than the sum of its parts.

Introduction

Writing and publishing in education, whether peer reviewed papers, book chapters or curricula (print or online) is not easy but adds value to scholarship and is essential for career advancement in many institutions.¹ In health professions' education (HPE), most papers have more than one author (sometimes from different organisations) which provides considerable advantages. Such advantages include the opportunity to learn from others to refine and hone writing styles, and the production of a more polished product which might have more success in being published. For early career clinical educators, who are often time-poor, collaborative writing can help them to advance in their careers and gain credibility as an educator.

Collaborative writing refers to the combined efforts of two or more authors to develop a writing project, where writing tasks are divided among supportive team members. HPE journals allow for a spectrum of scholarship development such as original research, critical reviews, commentaries and perspectives, case reports, innovations etc. For clinical teachers, educational outputs might also include the collaborative production of educational materials for their speciality or discipline, institutions and educational organisations, online learning resources, or book chapters.² Below, we explore some fundamental principles, describe benefits of multi-author outputs, and discuss key challenges for writing groups. We focus on three key concepts and recommend effective strategies for successful collaborative writing: types and standards for scholarship;^{3,4} leadership and followership;^{5,6} and communities of practice (CoP).⁷

Challenges and potential solutions for collaborative writing from multiple perspectives

It cannot be assumed that all collaborative writing teams will function smoothly. Important decisions such as listing of co-authors, authorship order, task allocation, and reconciling different writing styles are examples of common challenges which become more complex with larger, more diverse groups. Challenges can be seen from the perspective of the writing group, individual writers, and the

scholarly output itself. Writing groups comprising individuals from different health professions and disciplines may experience conflicts in research approaches, aligning the vision and goals of the writing project while staying inclusive of different enriching perspectives. Other group challenges include establishing psychological safety⁸ where senior members openly acknowledge limitations and are open to learn from more junior members. All need to accept that writing styles vary, show willingness to accept constructive feedback, and cultivate a growth mindset where setbacks are seen as opportunities to learn and develop.⁹ For the individual author, challenges include level of experience in writing, capability and flexibility to serve as a leader or follower, commitment to the team goal, willingness to learn and reflect, and time commitment to be accountable to the team in light of other responsibilities. From the perspective of the educational resource, challenges include uneven writing, misaligned goals and content, digressions from the topic or lack of clarity, which may all lead to the scholarly output not being a significant contribution to the field.¹⁰ Table 1 lists these challenges and provides potential solutions based on the key concepts³⁻⁷ and our team experience.

Table 1 here

Clinical educators (clinical practitioners who teach and design educational initiatives) are integral to a writing group aiming to create new clinical knowledge and practice-based learning through educational resources or peer-reviewed publications. They are immersed in the clinical environment, understand the authentic experiences, know what the challenges of learning issues and problems are, and where application of theories and concepts to educational and clinical practice can lead to the generation of new ideas and fill gaps in knowledge. However, many clinical teachers may have little or no background in educational pedagogy or the skillsets for scholarship advancement. Here, academic collaborations can help bridge the 'theory-practice gap'. The first step in a collaborative process is to identify areas of interest and gaps, such as those arising from learning issues and problems in the clinical environment, then focus on specific topic areas and aims. Collaborative

writing can aim to enhance the quality of clinical education in practice or increase knowledge generation in a specific area (Figure 1). The clinical learning environment is one of the most robust learning environments where knowledge is learned and applied, not just in the cognitive and skills based domain but most importantly in the affective domain. Caring for patients is a deeply emotional experience and transcends learning for learning's sake. Moreover, the learning and performance occurs within a natural community of practice, where team learning substantially augments individual learning.¹¹

Figure 1 here

Standards and types of scholarship

Traditional views of scholarship tended to focus solely on research which, for busy clinical educators, is often difficult or impossible to pursue due to lack of time, interest, or relevance. Boyer expanded the types and scope of scholarship to include: scholarship of discovery (research); scholarship of integration (making connections across disciplines); scholarship of application (application of knowledge to real-life problems and practice); and scholarship of teaching (studying the process and impact of teaching and learning).³ Effective presentation requires clear elaboration of the problem, identification of gaps in knowledge and how the publication addresses the gap.¹² For example, Boyer's framework can be applied to the study of feedback and coaching in the clinical setting.³ Scholarship of discovery requires statement of the problem and its importance, identification of gaps in knowledge and how the study can narrow the gap; scholarship of application could involve the design of feedback initiatives based on the new knowledge; improving feedback in the clinical teaching setting can constitute scholarship of teaching and learning; and applying the new knowledge and concepts to other disciplines or professions can indicate scholarship of integration. Regardless of the format of scholarly products, all papers should meet Glassick's criteria for

scholarship: clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique.⁴

Forming and maintaining the writing team: Leadership and Followership

Writing collaboratively requires authors to work as a team which involves leadership, management, and followership: the leadership triad.⁵ Collaborative writing requires understanding of the vision and aim, and whether the paper focuses more on theory development or practical implications or both. Such emphasis can guide leadership and followership roles throughout the project. The leadership is not necessarily vested in one individual, rather, all group members should demonstrate willingness to work and learn together, take a lead and follow when required, and share the workload and the power. A collaborative writing group needs individuals who perform each of these roles effectively, roles which should be rotated for different projects to enhance the intrinsic motivation of all group members. Maintaining psychological safety is essential for growth and success.⁸

The team should anticipate and manage potential conflicts that arise from different views of priorities in clinical education, different ways of working and different theoretical approaches. Whilst timelines and momentum to complete the project are paramount, flexibility to adjust and reach consensus on issues such as the target journal, leadership-followership roles, understanding of time constraints etc, are equally essential. Team members from different professional backgrounds, organisations, regions, countries, and cultures, may have very different beliefs and approaches in terms of communication style, work ethics, values, and assumptions regarding 'the project'.⁶ These variables should be anticipated as part of the dynamic collaborative writing process. Finally, while leadership, management and followership are required for progression of the collaborative writing process, debriefing and reflection enables all team members to develop or enhance these skills.

Systematic approach to collaborative writing

Collaborative writing projects require a systematic approach with the following steps: planning, writing, submission, and reflection (Figure 2). Flexibility needs to be inbuilt to the plan. This is critical for the clinical teachers on the team who typically have to juggle multiple competing work commitments in clinical care, education or administration, in order to engage in academic collaboration.

Figure 2 here

The planning stage involves critical decisions on the topic area for the paper, then narrowing the focus and clarifying aims of the project. For research and evaluation papers, this stage will also include protocol development and a discrete set of tasks for successful project completion. Decisions about target audience, journal and type of publication are imperative at this stage. Formation of the writing group requires recruitment of topic experts as well as novice writers with interest in writing about the topic, inclusivity to ensure that diverse cultures, contexts, ideas, and perspectives are represented. The lead author should be skilled in getting the team to reach consensus on key messages, plans, timelines, and task assignment, word limits, and overall flow of the paper.

Once plans are finalised, writing can commence. An additional layer of complexity needs to be addressed in practical or evaluation studies, which often occur after an educational initiative has already been implemented. Regardless, all studies where data are collected with intent to publish need ethics approval, even if educators consider them as an educational quality improvement. The lead author should ensure a consistent voice, meaning, grammar and style throughout the paper. Once an initial draft is complete, further editing and refinement will be needed. Involving a small team at this stage can enhance efficiency, though all co-authors need to review the pre-submission version and approve it. The final stage of submission should be completed by the lead author. While waiting for the outcome of the submission, the team should debrief and reflect on approaches that

did and did not work, and discuss how future projects might be handled. It is with these ongoing reflections that a group becomes transformed into a community of scholars.¹³

Transforming into a community of scholars

A collaborative writing group is not just a group of people writing a paper, it should emphasise the growth and development of individuals within the team and further build capacity for ongoing high-quality scholarship. Such groups can foster a deep sense of belonging to a community of practice (CoP).⁷ Authors with different levels of experience and expertise can share their knowledge and wisdom, all members can learn from and mentor one other, thus continuing their own personal development. Individual team members should have the flexibility to be legitimate peripheral participants or move closer to the centre for a given project. The scholarly submission is a shared product that binds the CoP together and can be viewed through three perspectives (Figure 3). A collaborative writing group exemplifies the definition of a CoP: a group of people with a common passion, working on a project and sharing resources/skills.⁷

Figure 3 here

The socialisation process within a collaborative writing team can function to enable clinical teachers to develop a professional identity as a clinical and educational scholar.¹⁴ Factors such as level of expertise, passion for the topic, experience in clinical education and interest in engaging in scholarship, as well as system factors such as healthcare context, clinical education system, learners' and teachers' characteristics provide a rich context for collaborative writing. Development of a CoP in clinical education can begin by finding a shared vision and creating psychological safety for early career clinical teachers, followed by expansion of interests and scholarship through further networking and mentoring.¹⁵ Such communities can be sustained over time to continue to advance the field. With a unique combination of team members representing diverse cultures and contexts, a

collaborative writing project can be instrumental in creating a local, regional, national, or even a global community of practice.

Conclusions

The many avenues for scholarly inquiry, the need to incorporate a variety of perspectives and the importance of applying scholarship criteria to enhance the quality of clinical education highlight how and why collaborative writing groups can be valuable. A systematic approach to writing, which balances leadership and followership can ensure that timelines are met. Embracing cultural diversity and cultural competence can support and enhance international collaborative writing projects.

Whether locally or internationally situated, collaborative writing groups can be powerful communities of practice, where professionals with varying experience, expertise and perspectives can come together within a safe space, mentor each other, maximise peer learning and co-create a piece of scholarship that is much greater than the sum of its parts.

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Pull-out quotes

- For early career clinical educators, collaborative writing can help them to advance in their careers and gain credibility as an educator.
- Clinical educators are integral to a writing group aiming to create new clinical knowledge and practice-based learning through educational resources or peer-reviewed publications.
- The clinical learning environment is one of the most robust learning environments where knowledge is learned and applied, not just in the cognitive and skills based domain but most importantly in the affective domain.

- Traditional views of scholarship tended to focus solely on research which, for busy clinical educators, is often difficult or impossible to pursue due to lack of time, interest, or relevance.
- Collaborative writing requires understanding of the vision and aim, and whether the paper focuses more on theory development or practical implications or both.
- Collaborative writing projects require a systematic approach with the following steps: planning, writing, submission, and reflection.
- A collaborative writing group is not just a group of people writing a paper, it should emphasise the growth and development of individuals within the team and further build capacity for ongoing high-quality scholarship.

References

1. Gottlieb M, Dehon E, Jordan J, Bentley S, Ranney ML, Lee S, et al. Getting published in medical education: Overcoming barriers to scholarly production. *West J Emerg Med* 2018;19 (1): 1-6.
2. Mandel, J. Career development strategies for clinical educator. *ATS Scholar* 2020;1 (2): 101–9.
3. Boyer, EL. Scholarship reconsidered: Priorities of the professoriate. (PDF), Carnegie Foundation for the Advancement of Teaching. 1990.
4. Glassick, CE. Boyer’s expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the teaching of scholarship. *Acad Med* 2000;75 (9):877-80.
5. McKimm J, O’Sullivan H. When I say ... Leadership. *Med Educ* 2016; 26;9(50):896-7.
6. Schein EH. *Organizational culture and leadership*. 3rd ed. The Jossey-Bass business & management series. San Francisco: Jossey-Bass. 2004
7. Wenger E. *How we learn. Communities of practice. The social fabric of a learning organization.* *Healthc Forum J.* 1996;39:20–6.
8. Edmondson AC. *The fearless organization: creating psychological safety in the workplace for learning, innovation, and growth.* Hoboken (NJ): John Wiley & Sons, Inc. 2019.

9. Dweck C. What having “a growth mindset” actually means. [internet]. Harvard Business Review.[January 13, 2016, cited Dec 16, 2020]. Available from hbr.org/2016/01/what-having-a-growth-mindset-actually-means
10. Marquis E, Healey M & Vine M. Fostering collaborative teaching and learning scholarship through an international writing group initiative. Higher Educ Res Dev. 2016;35(3): 531-544
11. Toolsgaard MG, Kulasegaram KM, Woods NN, Brydges R, Ringsted C, Dyre R. The myth of ivory tower versus practice-oriented research: A systematic review of randomised studies in medical education. Med Educ 2020 [cited 5 Nov 2020]. Available from: <https://doi.org/10.1111/medu.14373>
12. Lingard, L. Joining a conversation: the problem/gap/hook heuristics. Perspect Med Educ 2015;4:252–3.
13. Ramani S, McKimm J, Findyartini A, Nadarajah VN, Hays R, Chisolm M, et al. Twelve tips for developing a global community of scholars in health professions education. Med Teach 2020 [cited 5 Nov 2020]. Available from: <https://doi.org/10.1080/0142159X.2020.1839034>
14. Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y. A schematic representation of the professional identity formation and socialization of medical students and residents: a guide for medical educators. Acad Med 2015; 90(60): 718-25.
15. Ramani S, McKimm J, Thampy H, O’Sullivan P, Rogers GD, Turner TL, et al. From clinical educators to educational scholars and leaders: strategies for developing and advancing career in health professions education. Clin Teach 2020; 17: 1-6.

Table 1. Collaborative writing: Challenges, strategies and solutions

Perspective	Challenges	Strategies and potential solutions
Individual members	<ul style="list-style-type: none"> • Writing skills • Not knowing how or where to start • Ability to serve as a follower or leader • Willingness to learn from other team members 	<ul style="list-style-type: none"> • Reflect on current writing skills, identify individual strengths and weaknesses, seek courses as necessary • Seek advice from peers and more experienced mentors • Join groups of clinical educators engaged in scholarship development • Contribute to the writing and seek feedback • Identify own strengths and weaknesses as an effective follower on the team • Self-assess leadership skills • Learn to accept constructive feedback • Adopt a growth mindset
The writing team	<ul style="list-style-type: none"> • Psychological safety • Conflicting perspectives • Lack of shared vision • Need to mentor novice members 	<ul style="list-style-type: none"> • Ensure that all team members can contribute, acknowledge limitations and insecurities • Set the ground rules for the team • Embrace diversity and inclusivity • Discuss vision and motivation of each member, address differences in opinion, reach consensus • Let members express the shared vision of a certain project in their own ways and give rooms to determine whether the vision is consistent with the individual's vision • Let each team member choose whether to engage in a certain project • Combine senior and novice members as leaders and followers for the projects • The leader of the project facilitates the mentor and co-mentor process
Scholarly output	<ul style="list-style-type: none"> • Uneven styles 	<ul style="list-style-type: none"> • The team defines the problem, gap analysis and hook of the topic according to the type of publication and journal target • The lead author and a dedicated team set the tone and style and format the manuscript after everyone contributes

Perspective	Challenges	Strategies and potential solutions
	<ul style="list-style-type: none"> • Deviation from the topic at hand • Lack of clarity in the message • Does not contribute significantly to the field 	<ul style="list-style-type: none"> • The leader or assigned team member assures the writing style is consistent across sections of the paper • The team discusses the relevant theory that support the topic • The team leader redirects scholarly output based on the topic, seeking and reconciling input from other members along the way • Construct outline for the paper with key messages that need to be communicated • Review all sections to ensure alignment and clarity • Identify the problem, gap and the aim of the paper from the start to identify how the paper can advance the field • Ensure systematic literature review and thorough team discussions on the emphasis of the project • Consult experts (including editors) to assess whether the planned paper is a potential contribution to the field

Figure 1. Collaborative writing in HPE : A continuum of theory development and application to practice

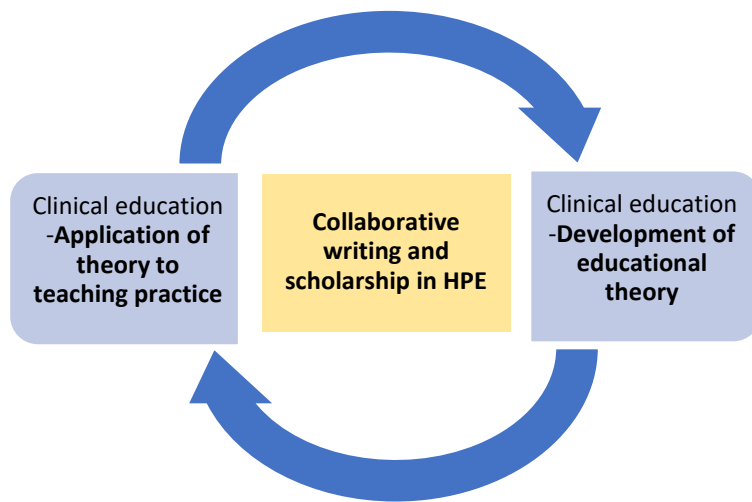


Figure 2. Systematic approach to collaborative writing

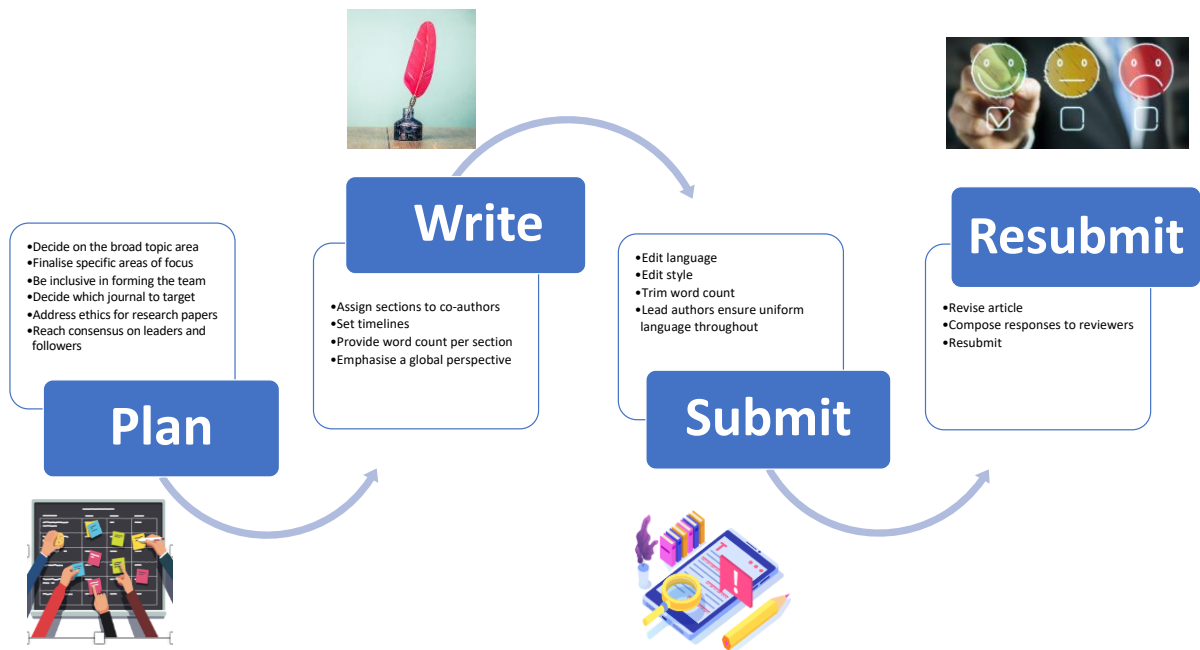


Figure 3. The value of a community of practice for individuals, the team and the field

