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What counts? Defining scholarship in continuing professional development using a national modified Delphi study

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Abstract

Background: In many domains within medical education, scholarship can have unique attributes. The accreditation standards for Canadian Continuing Professional Development (CPD) require scholarly output from each Office in Canada. However, it is unclear what scholarly outputs might be considered as CPD scholarship.

Methods: Representatives from a national cross-section of collaborators within the Association of Faculties of Medicine of Canada (AFMC) Continuing Professional Development (CPD) network and other national organizations assisted in this project. Collaborators participated in a 3-phase, modified Delphi study from October 31st, 2023- June 17th, 2024. The three phases included: 1) Registration and Ideation; 2) Consensus Process; 3) Group Validation.

Results: A total of 31 individuals registered as part of the consensus panel, and 29 individuals (93.5% response) completed the 3-stages of the modified Delphi. The endorsement of 18/31 types of scholarship, including novel forms such as Community Engagement, Testing/Pilot Approaches, and Advocacy Scholarship, reflects an important shift in how CPD scholarship is understood.

Discussion: In a first for our field, the results of this study comprise a consensus-based definition that defines CPD scholarship at a national scale. The results crucially inform national accreditation processes, strategic planning exercises, and overall, in expanding the types and acceptance of activities as recognized scholarly work for those seeking recognition and promotion within the domain of CPD. We do so with the voice of our community to inspire new and emergent scholarship. Periodic reviews of these concepts should be conducted, as scholarly pursuits evolve over time.

Qu'est-ce qui compte ? Définir la recherche dans le cadre du développement professionnel continu à l'aide d'une étude Delphi nationale modifiée

Résumé

Contexte : Dans de nombreux domaines de l'enseignement médical, la recherche peut présenter des caractéristiques uniques. Les normes d'accréditation du développement professionnel continu (DPC) canadien exigent que chaque bureau au Canada produise des travaux de recherche. Cependant, on ne sait pas exactement quels travaux de recherche peuvent être considérés comme relevant du DPC.

Méthodes : Des représentants d'un échantillon représentatif de collaborateurs du réseau de développement professionnel continu (DPC) de l'Association des facultés de médecine du Canada (AFMC) et d'autres organisations nationales ont participé à ce projet. Les collaborateurs ont pris part à une étude Delphi modifiée en trois phases, qui s'est déroulée du 31 octobre 2023 au 17 juin 2024. Les trois phases comprenaient : 1) l'inscription et la conceptualisation ; 2) le processus de consensus ; 3) la validation par le groupe.

Résultats : Au total, 31 personnes se sont inscrites au panel de consensus et 29 personnes (93,5 % de réponse) ont terminé les trois étapes de l'étude Delphi modifiée. L'approbation de 18 des 31 types d'érudition, y compris des formes novatrices telles que l'engagement communautaire, les approches pilotes/tests et les connaissances de défense des droits, reflète un changement important dans la manière dont les savoirs de DPC sont compris.

Discussion : Pour la première fois dans notre domaine, les résultats de cette étude constituent une définition consensuelle qui définit la recherche du DPC à l'échelle nationale. Ces résultats fournissent des informations cruciales pour les processus d'accréditation nationaux, les exercices de planification stratégique et, de manière générale, pour élargir les types et l'acceptation des activités reconnues comme travaux universitaires pour ceux qui cherchent à être reconnus et promus dans le domaine du DPC. Nous le faisons avec la voix de notre communauté afin d'inspirer de nouvelles études et des découvertes. Ces concepts doivent faire l'objet de révisions périodiques, car les activités universitaires évoluent avec le temps.

Introduction

Accreditation standards for Canadian Continuing Professional Development (CPD) require scholarly output from each CPD Office in Canada, while AC-CME requires it for accreditation with commendation. There is no agreed-upon statement to outline what might be considered CPD scholarship. Accreditation standards typically list traditional research outputs including peer-reviewed presentations; peer-reviewed grants; peer-reviewed publications; and 'other' activities.¹ Othering aside, the lack of detail and clarity hampers the expansion and

acceptance of scholarly activities that go beyond archetypal and perhaps antiquated notions of what should count as scholarly activity in CPD.

The field of scholarship has undergone considerable change over the last 35 years. Following the publication of Boyer's Framework, which outlined the four domains of scholarship—Discovery, Integration, Application, and Teaching—further work has delineated criteria and examples of scholarship within these domains.²⁻⁵

However, definitions of scholarly work are changing. The growth of social media platforms has led to

calls to recognize them as a distinct tool for key scholarly activities. *Digital scholarship* presents new avenues for collaboration, engagement, and knowledge mobilization, particularly across disciplines and within the wider non-academic community, while also requiring novel metrics and standards.^{6,7}

Meanwhile, the growing engagement of physicians and health sciences clinicians with academic activities have also opened the door to clinically based scholarship, including quality improvement initiatives. This includes guidelines, protocols and safety studies (clinical); curricula, syllabi, modules, and pedagogical tools published in print or in other media (educational); and policy statements and legal advances.⁸

Finally, the growth of community-engaged scholarship within the broader field of medical education – where scholarly work is carried out as a full partnership with community members, organizations, and institutions – continues to expand and reshape our definition of what scholarly activities and outcomes include. Community engaged scholarship has the potential to help engage clinicians in scholarship who might otherwise not see a role for themselves in research.⁹ Institutional recognition of the associated values of community-engaged research is often still lacking, for example by supporting longer time-frames; new ways of thinking about who is valued as a peer in *peer review*; and community-directed dissemination as opposed to traditional dissemination in a journal,¹⁰⁻¹² some universities in the United States are starting to provide guidance.^{13,14}

The numerous threads of development in scholarship, all of which intersect with the work of CPD, have opened the doors to recognizing and learning from new forms of scholarship which facilitates new activity. Work that is recognized as a form of scholarship may have additional value in the eyes of CPD stakeholders, including scientific planning committees, faculty and clinicians, specialty associations, and CPD University Offices. Recognition also facilitates acceptance into more traditional venues of scholarship – e.g., conferences, and publication venues. At the same time, designating an activity as a form of scholarship helps to set expectations

and guide practitioners through criteria for promotion, service, or social accountability. For example, a recent consensus definition at a single US institution identified (a) advancement of knowledge; (b) dissemination; and (c) impact.⁸ At the national level, a consensus statement taking into account the nuances of CPD could be used within national accreditation processes, strategic planning exercises, and overall, in expanding the types and acceptance of activities as recognized scholarly work. With our national collaborators, we sought to engage in a consensus method to determine what the field presently considered CPD scholarship.

Methods

We conducted a three-phase modified Delphi process¹⁵⁻¹⁸ to develop consensus on the types of scholarship relevant to CPD. Our consensus process took place from October 31st, 2023 - June 17th, 2024. A Modified Delphi method¹⁵ was chosen as it allows for structured, iterative input from a diverse panel of experts, fostering the refinement of ideas and the achievement of consensus on the complex issue of what should be counted as CPD scholarship where a consensus does not exist. The modification of the method in this study was to expand out to three phases to accommodate an initial registration phase as well as intermediate analysis to provide curated information that reflected the novel inputs of participants in earlier phases. All the experts who completed each round were invited to participate in the subsequent round. Surveys in all three phases were administered online using Qualtrics survey software. Participants had the option to complete the survey via the phone if desired; no participants requested this. During collection, responses were linked to participants to track completion and ensure representativeness of the data; all data was de-linked and aggregated for analysis.

Phase 1: Registration and ideation

Participants were purposefully recruited based on their expertise in CPD, scholarship, or related domains with a specific focus on diversity of experience and perspectives. Eligible participants included researchers, officials from regulatory bodies and colleges, as well as leaders from CPD providers such

as national specialist societies and university CPD offices. Recruitment was conducted through targeted email invitations sent through professional networks, CPD leader groups, and direct invitations to the CPD lead or analogue at each of the regulatory bodies and colleges in Canada. Participants were asked to confirm their interest and eligibility by completing an online registration form and initial survey. Registration asked participants for their role, academic activities, age bracket, and formal degrees completed. This form also emphasized the importance of completing all phases of the study to contribute to meaningful outcomes and ensure their voice was heard. In this phase, participants were also asked to identify potential types of CPD scholarship through open-ended prompts. Responses were collected and analyzed using qualitative content analysis. This analysis identified recurring themes and aggregated related ideas, yielding an initial set of distinct types of scholarship that would be the foundation of the consensus phases to follow. We conducted qualitative analysis in two pairs and the established consensus by going over each other's coding as a team. There were no disagreements at the end of this consensus building exercise. A comprehensive summary of these findings was shared with participants to ensure transparency and provide a foundation for subsequent phases.

Phase 2: Consensus process

The consensus phase focused on evaluating the relevance and importance of 31 potential types of CPD scholarship identified during ideation. Participants completed a structured survey. For each proposed type of CPD, the participant indicated whether they engaged in this activity (yes/no response) and rated the value of the proposed types of scholarship using a 7-point Likert scale, where 1 = no value at all for the field; 4 = neutral; and 7 = very high value for the field. Feedback was aggregated across all experts in one group. Quantitative data were descriptively analyzed including frequency, rate, mean, and standard deviation. Consensus thresholds were pre-defined at study inception as 75% or greater agreement among participants after considering the need for majorities balanced with including emergent methodologies. Feedback reports summarizing the group's ratings and rankings were shared to promote reflection and guide participants toward a

shared understanding based on the emerging consensus. This iterative approach was essential for refining the proposed types of scholarship and narrowing them to those achieving broad agreement.

Phase 3: Final validation

The validation phase involved presenting frequencies and mean values for the endorsement and value statements for the refined list of CPD scholarship types to participants for final review and feedback. All 31 of the original items were presented, regardless of their level of agreement or dissent in phase two. Participants were asked to confirm the validity of the identified types of scholarship by reviewing the feedback and indicating whether, based on the results, they endorsed the activity as a type of CPD scholarship. They were also invited to suggest any final revisions or considerations. This phase ensured that the final outcomes were not only agreed upon but also reflected the collective judgment of the panel.

Communication and follow-up

Throughout the study, participants were contacted via email up to three times per phase to maximize engagement and ensure access to participation for each registrant. This took the form of an initial email and then two sequential reminders as needed to those who had not responded after two-week period. Emails included study updates, detailed instructions, and links to the phase's surveys. This structured communication strategy was utilized to maintain a high level of participation across all phases and prevent response drop off.

Ethics

This project received a research ethics exemption from the Hamilton Integrated Research Ethics Board as a consensus work. All data was provided back to the participants in aggregated form. There was no funding supporting this work.

Results

We invited 34 participants of which we successfully recruited 31 participants. 29 (93.5%) completed every phase. The two respondents who did not complete participation did not respond after phase two, meaning they only partially contributed to our results. Of the 31 proposed types of scholarship, only 18 received more than 75% endorsement from the respondents. This included novel types of scholarship including community engagement, testing/pilot approaches, and advocacy scholarship.

Phase 1: Registration and initial ideation

Thirty-one participants registered to participate in the Delphi process after the call for participants was distributed. Their de-identified positions and experience are presented in the supplemental digital content (SDC), as Appendix A. Their experiences and positions over their careers are categorized into three strands based on having three or more years of experience in CPD research (23/31), CPD leadership (27/31), or CPD development (22/31). The average experience of the consensus experts was 15.5 years.

During this phase, participants also volunteered 17 new CPD scholarship types that were used to expand the growing list for consensus review. These additional 17 were thematically analysed by the authors and coalesced into 11 new items included in the validation step of the types of scholarship now totaling 31. All 18 medical schools (100%) were represented, including the 17 of these schools with an accredited CPD office as well as participation for regulatory bodies and national specialty societies.

Phase 2: Consensus process

The results of phase 1 ideation were fed forward into the consensus survey of phase 2 as offered by the respondents without any imposed *a priori* criteria. The 31 registered respondents were surveyed on their endorsement of the item as CPD scholarship (or not) and were also asked if they themselves had experience conducting each of the 31 proposed types of scholarship, to generate some reflexivity

data during the process and allow others to determine if personal engagement shaded participants' view on whether a contribution was viewed as scholarship. Twenty-nine (93.5%) respondents completed this phase. The two participants who did not participate further in the study were from sites with multiple respondents and thus did not affect the national cross-sectional nature of the study. These results are depicted in Tables 1 and 2.

Table 1. Participant experience and endorsement of endorsed scholarly endeavours in CPD

Item	<i>n</i>	% Endorsement
Quality Improvement	25	100.00%
Testing/pilot educational materials	25	100.00%
Leading or contributing to development of CPD program continuous improvement methodologies and processes	24	100.00%
Innovations in Program Delivery (e.g., that is evidence or theory driven/informed)	23	100.00%
Testing/pilot approaches (e.g. AI in CPD)	21	100.00%
Needs Assessment (i.e. collection, synthesis, data from litigations, learning gap analysis, and mobilization of data)	28	96.60%
Producing and/or creating CPD work	28	96.60%
Leading or contributing to development of CPD program evaluation methodologies	23	96.60%
Scholarship of Teaching Learning / Scholarship of Education	18	96.60%
Scholarly practice	26	93.10%
Developing educational materials (podcasts, videos, interactive online modules)	25	93.10%
Disseminate best practices	23	93.10%
Impact or Outcomes analysis of CPD	22	93.10%
Teaching CPD (esp. peer reviewed workshops and keynotes)	25	89.70%
Leading or contributing to development of learning assessment methodologies	19	89.70%
Service/leadership work in CPD (international, national, regional, local)	24	79.30%
Community Engagement	17	75.90%
Advocacy Scholarship (e.g. CPD as a solution for real life problems)	13	75.90%

Table 2. Participant experience and perspectives on not-yet endorsed scholarly endeavours in CPD

Item	<i>n</i>	% Endorsement
Knowledge Moderation - Reviewing, Editing, and Facilitating the "Back End" of Scholarship (e.g. journals, grants, ethics review boards, etc)	20	72.40%
Keynotes and other invited presentations	24	72.40%
Engagement metrics	16	72.40%
Quality Assurance	16	69.00%
Digital Scholarship	11	69.00%
Creative Reflection	18	65.50%
System Development	15	58.60%
Writing a multi-disciplinary textbook	9	58.60%
Curation of content	17	55.20%
Leading or contributing to protocol development that involves intra-disciplinary validation	7	55.20%
Remediation of others (individualized design for programming)	11	48.30%
Promotion of CPD as a discipline (including facilitating awards & recognition)	14	37.90%
Consultative services to external groups	11	34.50%

Phase 3: Group validation

All twenty-nine respondents who completed phase 2 (93.5% of the original recruits) also completed this phase. A total of 18 items of the original 31 proposed types of scholarship (from the ideation phase) met the endorsement threshold of greater than 75% (See Table 1). Novel forms of scholarship endorsed included: Community Engagement, Testing/Pilot Approaches, and Advocacy Scholarship. Creative reflection, system development, writing a multi-disciplinary textbook, and digital scholarship were endorsed by majorities of the experts, but did not clear the 75% majority required for consensus.

Discussion

The results of this study support a core set of eighteen types of scholarship in CPD. An emergent group of types of scholarship nearing the 75% endorsement threshold indicates that the demographics of types of CPD scholarship will continue to change and thus requires continued study. This study points to new types of scholarship for

organizations to consider as a part of their mandate to be scholarly in their approaches to CPD. This work may have implications for promotion and tenure of researchers, where applicable.

The findings from this study significantly contribute and it is hoped will shape the evolving discourse on what constitutes scholarship in Continuing Professional Development (CPD) to consider new and innovative types of scholarly approaches as scholarship. This work aligns with longstanding calls for a broader and more inclusive framework for scholarship, building on Boyer's foundational Framework for Scholarship, which originally articulated the domains of Discovery, Integration, Application, and Teaching as foundational and has since evolved for the digital age, a discussion that is still ongoing.^{2,19-21} We position this framework as continuing to provide a reference point for expanding definitions of scholarship and ensuring its applicability across diverse fields, including CPD.

On digital scholarship

Unsurprisingly, digital scholarship continued to be viewed only by some of our experts as a form of scholarship. Scholarly activities that leverage digital technologies for research, teaching, dissemination, and engagement, while not meeting the consensus threshold in this study, remain an area of growing interest and potential in the eyes of most expert participants as well as the authorship team (69%). As noted by Husain et al.⁶ and Johng,⁷ digital platforms offer unprecedented opportunities for knowledge dissemination and interdisciplinary collaboration. It is these new frontiers in understanding, reach, and departure from legacy scholarship that offer the most promise in net-new potential. Its future inclusion as a recognized form of scholarship may depend on the development of robust metrics for evaluating its impact.²² We imagine that the barriers to inclusion as scholarship may come down to perceptions of these scholarly outputs, but also reflect the diversity of the types of scholarship across the country and how these media are variably seen as scholarly within existing frameworks for academic promotion.

On the scholarship of engagement

Interestingly, some of the more novel forms of scholarship identified in our study align quite well with Boyer's later work where he encouraged the academy to consider the Scholarship of Engagement – seeking to close the 'town and gown' divide by encouraging scholars to enter into the real world and find ways to engage the world with their work.^{3,23} The emergence of concepts like community engagement, advocacy scholarship, creative reflection, and system development are all aligned with the Scholarship of Engagement.²⁴

The endorsement of 18 types of scholarship, including novel forms such as Community Engagement, Testing/Pilot Approaches, and Advocacy Scholarship, reflects an important shift in how CPD scholarship is understood. The participating experts understood that scholarship is more than journal articles and textbooks, but rather a continuum of endeavors that advance understanding and connection to the communities that we serve. These newer endeavors, at least newer to CPD,^{25,26} challenge traditional, and some would say colonial or oppressive,^{10,27} notions of academic work, emphasizing impact, practical application, and collaboration. Community engagement, for example, reflects a growing movement in medical education and CPD that prioritizes partnerships with communities to address real-world problems like structural inequity.

These conceptualizations of scholarly work align with other taxonomies of engaged scholarship in higher education, which define new ways of acknowledging that participatory or public-facing scholarship can be of key importance.^{28,29} Community engagement and advocacy scholarship can be seen as civic engagement scholarship that helps to connect patients back into CPD processes – a movement that has recently been increasingly encouraged.^{10,30} The values of community-engaged scholarship, as described by Sandmann et al.,¹⁰ emphasize long-term collaboration, mutual benefit, and the co-creation of knowledge that empowers relationships, communities, and person-centred research. Institutions that recognize and support this form of scholarship can better integrate their CPD activities with

societal needs and act to address challenges in their communities.

On quality improvement

Another critical finding is the high endorsement of scholarly activities closely tied to practical applications, such as Quality Improvement and Program Delivery innovations. These types reflect the increasing emphasis on clinically integrated scholarship in medical education, scholarship that makes a proximal and tangible contribution to patient or learning outcomes. Quality improvement initiatives align with the work of translational CPD scholarship, where safety studies and protocol development are recognized as key scholarly outputs.⁸ These findings suggest that CPD scholarship is shifting toward activities that directly influence clinical practice and healthcare outcomes, perhaps in intentional and unintentional alignment with the higher-order metrics outlined by the Kirkpatrick model.³¹ The inclusion of Advocacy Scholarship as a recognized type also highlights the growing role of CPD in addressing broader societal and systemic challenges such as the legacy of colonialism and geographic inaccessibility to necessary care. Advocacy Scholarship (which we defined as scholarship designed to advance justice), as a solution-oriented activity, extends the role of CPD beyond professional development to include policy influence and systemic change. This is much needed to influence culture shift in medicine and other health professions. This finding aligns with the call for CPD to adopt a more proactive role in addressing inequities and driving healthcare transformation.³²

Implications for the field

The implications of these findings are manifold. First, they provide a clearer roadmap for CPD offices, universities, and accreditation bodies seeking to define scholarly outputs. Recognizing diverse forms of scholarship can enhance the credibility of CPD within academic and professional contexts, facilitating acceptance into traditional scholarly venues such as conferences and journals. Furthermore, as Milner et al.⁸ suggest, defining and recognizing CPD scholarship can support promotion and tenure pathways for faculty engaged in these activities. This is particularly important for ensuring that CPD

practitioners, who may not produce traditional research outputs, are nevertheless acknowledged for their scholarly contributions, especially if they are in a faculty role and looking to secure promotion.³³

At a broader level, the study underscores the need for ongoing research into CPD scholarship. The emergence of types such as Creative Reflection and Digital Scholarship, which did not meet the endorsement threshold, suggests that the demographics and priorities of CPD scholarship will continue to evolve. Future studies should explore the barriers to recognition of these types and investigate how institutional policies and practices can adapt to support them and other unforeseen, but scholastic endeavors.

Limitations

Our present study has a number of limitations. Although we sampled from a broad array of experts across the country and received exceptional engagement including responses from all 18 Canadian medical schools, there may still have been inadequate sampling for diversity on perspectives around scholarly work. Specifically, those working in CPD may not be experts on scholarly or academic work themselves, and this may have resulted in misinterpretation or misunderstandings of the nature of what counts as scholarship. Also, a number of our participants were CPD providers who exist outside of academia, within national organizations and may have brought a divergent view, preventing true consensus. However, considering these groups' understanding of what constitutes scholarship inextricably affects the national definition through accreditation processes and standards, their inclusion was certainly warranted. Finally, many of our scholarly forms were simply listed as specific items without much further explanation, which may have resulted in confusion for those terms that were less familiar to our participants (e.g. digital scholarship). In further iterations of this, it may be prudent to provide more robust definitions or examples during a Delphi process such as ours.

Conclusion

We conclude that this consensus study affirms the relevance of traditional and novel forms of scholarship in CPD, emphasizing the importance of flexibility and inclusivity in defining scholarly work that reflects the reality of a changed CPD world. It does so by incorporating the unified voices of experienced and emergent CPD leaders, scholars, and developers to speak their truth as they see it. The results highlight opportunities for CPD organizations and the universities, regulatory bodies, and colleges that are attached to them to embrace a broader spectrum of activities such as scholarship, fostering innovation, impact, and collaboration across the field. This expanded understanding can inform accreditation processes, strategic planning, and institutional policies, ultimately advancing the role of CPD as the process of scholarly and transformative practice with the longest duration of effect in the learning lifespan of health professionals.

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Conflict of Interest:

E. Soleas is a current employee of Queen's Health Sciences. C. Cook is a current employee of the Continuing Education and Professional Development Office at NOSM University. T.M. Chan and S. Miller have previously received salary from their respective institutions as associate deans of continuing professional development. T.M. Chan receives an honorarium for her work as associate editor at Academic Medicine by the Association of American Medical Colleges (AAMC).

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Previous presentations:

Summarized findings of this study will be presented as an oral presentation at SACME 2025 from March 16-19th

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