Advancing Pain Education in Canadian Physiotherapy Programmes: Results of a Consensus-Generating Workshop

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ABSTRACT

Purpose: This article reports on a national stakeholder workshop that focused on advancing pain education in physiotherapy programmes across Canada.

Methods: Workshop participants included national leaders from the following stakeholder groups: people living with pain; physiotherapy students and recent graduates; pain educators; physiotherapy programme administrators; and representatives from the Canadian Alliance of Physiotherapy Regulators, Physiotherapy Education Accreditation Canada, Canadian Physiotherapy Association, and Physiotherapy Practice Profile project. During the workshop, barriers to, facilitators of, and strategies for advancing pain education were discussed, and a stakeholder-endorsed consensus statement was generated. The workshop was recorded, and data were thematically analyzed. **Results:** Participants identified important barriers and facilitators associated with the field of pain, standards and regulatory processes, physiotherapy programmes, and physiotherapy students and people living with pain. Strategies for advancing pain education included integrating pain competencies into standards and regulatory policy, encouraging the development of best teaching practices, partnering with people living with pain, building awareness, and setting goals and assessing clear outcomes. The consensus statement highlighted the central importance of pain education for physiotherapists and the need for a reference standard to guide its implementation in the Canadian context. **Conclusion:** This was the first initiative to specifically explore national stakeholders' perceptions of pain education. The workshop outcomes provide a strong mandate and direction for advancing pain education across Canadian physiotherapy programmes.

Key Words: clinical curriculum; knowledge translation; pain.

RSUM

Objectif: rendre compte d'un atelier national d'intervenants visant accrotre la formation sur la douleur dans les programmes de physiothrapie du Canada. **Mthodologie :** les participants l'atelier taient des leaders nationaux des groupes d'interventions suivants : personnes vivant avec la douleur, tudiants et rcents diplms en physiothrapie, formateurs en douleur, administrateurs de programmes de physiothrapie et reprsentants de l'Alliance canadienne des organismes de rglementation de la physiothrapie, de l'Agrment de l'enseignement de la physiothrapie au Canada, de l'Association canadienne de physiothrapie et du projet de profil d'exercice de la physiothrapie. Pendant l'atelier, les intervenants ont discut des obstacles, des incitations et des stratgies pour accrotre la formation sur la douleur et sont parvenus un nonc consensuel. L'atelier a t enregistr, et les donnes ont t analyses par thme. **Rsultats :** les participants ont cern des obstacles et incitations importants associs au domaine de la douleur, aux processus d'adoption de normes et de rglementations, aux programmes de physiothrapie et aux tudiants en physiothrapie et aux personnes qui vivent avec la douleur. Les stratgies pour faire progresser la formation sur la douleur incluaient l'intgration des comptences sur la douleur des normes et des politiques de rglementation, l'incitation laborer des pratiques exemplaires d'enseignement, les partenariats avec des personnes vivant avec la douleur, la sensibilisation, l'tablissement d'objectifs et l'valuation de rsultats cliniques clairs. L'nonc consensuel a fait ressortir le rle crucial de la formation sur la douleur pour les physiothrapeutes et le besoin de recourir une norme de rfrence pour en orienter la mise en uvre dans un contexte canadien. **Conclusion :** il s'agit de la premire initiative explorer expressment les perceptions nationales des intervenants l'gard de la formation sur la douleur. Les rsultats de l'atelier procurent un mandat et une orientation solides pour accrotre la formation sur la douleur au sein des programmes de physiothrapie du Canada.

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Contributors: All authors designed the study; or collected, analyzed, or interpreted the data; and drafted or critically revised the article; and approved the final draft.

Competing Interests: None declared. This project was funded by the Richard and Edith Strauss Canada Foundation.

Acknowledgements: The authors thank all workshop participants and members of the Pain Education in Physiotherapy Curriculum Initiative for their generous contributions to this project.

Physiotherapy Canada 2018; 70(1);24–33; doi:10.3138/ptc.2016-57

Pain is a leading cause of suffering, disability, and societal burden in Canada. One out of every five adults lives in chronic pain, and the total estimated cost of this chronic pain exceeds \$50 billion per year.^{1,2} Physiotherapists play an essential role in managing pain and pain-related disability across the health care continuum. Over the past 60 years, there have been dramatic advances in both fundamental and clinical research that can help physiotherapists fulfill this role. At the macro level, these advances include important changes in how pain is understood; although it used to be regarded as a symptom of tissue damage governed by the peripheral nervous system, it is now seen as a centrally modulated experience that can be characterized as a disease in its own right.¹ In the context of physiotherapy, evidence-based management strategies have been expanded to include a more comprehensive range of factors, such as psychosocial and neurophysiological processes.^{2,3} Despite this progress, many physiotherapists have yet to integrate these strategies into their clinical practice.^{4,5}

The gap between research and clinical practice may partially stem from the fact that limited pain education is provided during entry-level professional training. Previous research has suggested that the modal time spent on pain education in physiotherapy programmes across North America is 4 hours and that, on average, Canadian veterinary trainees receive more time dedicated to pain education than their counterparts in the human health sciences.^{6,7} This limited focus on pain education may contribute to newly graduated clinicians feeling unprepared to manage more complex forms of pain, such as fibromyalgia, complex regional pain syndrome, and chronic disabling back pain.⁸

The International Association for the Study of Pain (IASP)—the leading international body on pain research—has taken a preliminary step in addressing this issue by developing curriculum guidelines for entry-level physiotherapy training programmes.^{9,10} These guidelines take a comprehensive approach to pain education, ranging from foundational principles in basic science to more applied, interdisciplinary, and multi-modal management strategies. However, past research has provided little guidance on integrating these guidelines into Canadian physiotherapy programmes.

A knowledge translation (KT) approach may give clearer direction in this area and support the development of strategies to enhance pain education in Canada. KT is the dynamic process of integrating research findings into clinical practice,¹¹ and it uses purposeful strategies to identify and reconcile gaps between these two domains. A foundational component of KT is identifying the barriers to and supports for the uptake of new practice. Involving local stakeholders in this process is instrumental in generating tailored strategies that can effectively overcome identified gaps.^{12,13} In Canada, multiple stakeholder

groups can influence pain education in entry-level professional physiotherapy programmes: people living with pain; physiotherapy students and recent graduates; pain educators; physiotherapy programme administrators; and representatives from the Canadian Alliance of Physiotherapy Regulators, Physiotherapy Education Accreditation Canada, Canadian Physiotherapy Association (CPA), and Physiotherapy Practice Profile (PPP) project.

The purpose of this KT project was to bring together representatives of each of these stakeholder groups in a 1-day workshop focused on advancing pain education in Canadian physiotherapy programmes. The Pain Education in Physiotherapy (PEP) Workshop focused on identifying barriers to, facilitators of, and strategies for advancing pain education in such programmes, with the aim of producing a stakeholder-generated consensus statement on this issue. (A second phase of the PEP project will aim to use these findings to develop a stakeholder-supported strategic plan that advances pain education in physiotherapy curricula in Canada.) This article describes the workshop methods and findings and discusses their relevance to previous and future research in this area.

METHODS

Theoretical framework

This study was grounded in the knowledge-to-action (KTA) framework.¹¹ This framework is designed to help researchers and knowledge users translate research findings into practice by describing two interrelated KT processes: (1) knowledge creation and (2) application of that knowledge using an action cycle. The action cycle involves seven steps that move from identifying gaps between research and practice to evaluating and sustaining knowledge use. The present study focused on two early steps in the action cycle: (1) assessing barriers to knowledge use and (2) selecting, tailoring, and implementing interventions. In the context of the PEP workshop, this involved helping stakeholders better understand the current gaps between research and practice, identify factors that facilitate and challenge the advancement of pain education, generate strategies to advance pain education, and consolidate engagement by developing a consensus statement. The workshop was designed to develop into a second phase, which will continue to focus on the KTA action cycle by selecting and tailoring intervention strategies to advance pain education in the Canadian context.

Workshop participants and coordinators

Participants were invited on the basis of their ability to represent national stakeholder groups, and they included representatives of (1) people living with pain; (2) physiotherapy students and recent graduates; (3) pain educators; (4) physiotherapy programme administrators; (5) leaders from the Canadian Alliance of Physiotherapy Regulators, Physiotherapy Education Accreditation Canada,

Table 1 Stakeholder Groups, Participants, and Organizations Represented at the Pain Education in Physiotherapy Workshop

Stakeholder group	Participant(s) and organization
People living with pain	President of the CPC, a national advocacy group for people living with pain in Canada
Physiotherapy students and recent graduates	President of the NSA, which represents student members of CPA A recent graduate and practising physiotherapist from the Montreal area (local representative)
Pain educators	Three members of PEPCI, a national network of pain educators from each physiotherapy programme in Canada
Physiotherapy programme administrators	One member of CCPUP, which consists of the directors of each physiotherapy programme across Canada Chair of the physiotherapy curriculum committee* at McGill University (local representative)
Physiotherapy Education Accreditation Canada, Canadian Alliance of Physiotherapy Regulators, and PPP project	Executive director of PEAC, the national accreditor for Canadian physiotherapy programmes Chief executive officer of CAPR, the national credentialling and assessment agency for physiotherapy regulators across Canada PPP project manager (the PPP project is a collaborative initiative among CAPR, PEAC, and CPA and aims to revise the Essential Competency Profile for Physiotherapists in Canada)
Canadian Physiotherapy Association	One senior staff member and one elected board member of CPA, which represents 14,000+ physiotherapy professionals across Canada

*Curriculum committees direct and coordinate curriculum content and ensure that it aligns with national accreditation standards.

CPC = Canadian Pain Coalition; NSA = National Student Assembly; CPA = Canadian Physiotherapy Association; PEPCI = Pain Education in Physiotherapy Curriculum Initiative; CCPUP = Canadian Council of Physiotherapy University Programs; PEAC = Physiotherapy Education Accreditation Canada; CAPR = Canadian Alliance of Physiotherapy Regulators; PPP = Physiotherapy Practice Profile.

and PPP project; and (6) leaders from the CPA. Two stakeholders were invited as local (rather than national) representatives of new physiotherapy graduates and curriculum committee members. All invited stakeholder groups attended the workshop (a total of 13 participants); Table 1 describes the participants and their respective affiliations.

The five-member research team consisted of three content experts and two experts in education, curriculum design, and KT research. The content experts were all pain educators and researchers in Canadian physiotherapy programmes. The research team participated in all workshop activities as presenters, moderators, and discussants.

Approval

This study was approved by the institutional review board of McGill University's Faculty of Medicine and conforms to the human rights requirements of the International Committee of Medical Journal Editors' Uniform Requirements for Manuscripts Submitted to Biomedical Journals. All workshop participants provided written informed consent.

Pre-workshop activities

Before the workshop took place, participants received a formal letter of invitation that provided workshop details, along with a stimulus paper and pre-workshop questionnaire. The stimulus paper summarized the current state of pain education in physiotherapy programmes, introduced the IASP's guidelines for pain curricula, and was intended to stimulate reflection. To facilitate this process, participants were asked to complete a pre-workshop questionnaire to evaluate what they perceived were the barriers

to, facilitators of, and strategies for advancing pain education across the country. The stimulus paper and questionnaire were re-distributed to participants during the workshop to help facilitate recall and engagement.

Workshop

The workshop was held in Montreal on April 28, 2016. It followed the prepared agenda of (1) stakeholder presentations, (2) group discussions on barriers and facilitators, (3) group discussions on potential implementation strategies, (4) consensus statement discussion and generation, and (5) evaluation. An overview of workshop activities is provided in Box 1.

Documentation

To ensure that the information collected throughout the workshop accurately reflected the views of the participants, three moderators (all members of the research team) recorded key topics on a large sheet of chart paper during each discussion. In addition, three research assistants were hired to take notes about the key details of the discussions, and all discussions were digitally recorded.

Consensus statement

A nominal group technique was used to generate consensus.¹⁴ First, the entire group brainstormed broad themes that could frame the content of the consensus statement. Once these themes were identified, smaller groups met to draft portions of the statement. Each group's text was then presented, discussed, edited, and combined to form a unified statement. The group voted on the statement by secret ballot, and it was endorsed by

Box 1 Overview of Pain Education in Physiotherapy Workshop Activities

1. *Stakeholder presentations.* All workshop participants made brief presentations to the group to provide additional context for the issues at hand, an overview of their group and its activities, or both.
2. *Group discussions on barriers and facilitators.* Small- and large-group discussions focused on the barriers to and facilitators of improving pain education across Canadian physiotherapy programmes.
3. *Group discussions on potential implementation strategies.* Small- and large-group discussions focused on identifying strategies for improving pain education across Canadian physiotherapy programmes.
4. *Consensus statement discussion and generation.* A consensus statement was generated through personal reflection, and then small- and large-group discussions and voting were used to reach consensus.
5. *Evaluation.* Participants were asked to complete a post-workshop questionnaire to evaluate their perceptions of the workshop and to highlight any changes in their understanding of the issues.

75% of the voting participants; this was considered sufficient to endorse the statement.

Post-workshop questionnaire

The post-workshop questionnaire consisted of 13 questions (8 Likert-type questions and 5 open-answer questions) to evaluate the value and effectiveness of the processes used in the workshop and the outcomes; the participants' level of engagement in moving forward; changes in the participants' perceptions of the barriers to, facilitators of, and strategies for advancing pain education; and general comments on the workshop.

Data analysis

Verification and analysis of workshop data

After the workshop was over, the moderators independently created minutes for their group discussions using chart-paper notes, notes from the research assistants, and the audio recordings. These minutes were reviewed by a second investigator, who used the audio recordings for cross-validation. Any discrepancies were discussed and resolved. Once this procedure was complete, all workshop participants were invited by email to review the workshop minutes and amend them, if necessary. Amendments were integrated, and a final version of the minutes was emailed to stakeholders. Participants were also invited by email to submit amendments to a draft version of this article before the peer-review process.

The final workshop minutes were used as the source data for this article. As with previous approaches,¹⁵ the research team reviewed the workshop minutes to identify themes (first order) and categories (second order). Consistent with a qualitative description methodology,^{16,17} an inductive approach was used whereby no preconceived structure or theory guided the process; rather, the labeling and organization of themes and categories reflected the workshop discussions as much as possible.^{16,17} This process focused on grouping the information arising out of the discussions into themes and then trimming for redundancy. All themes and categories from both small-group and full-group discussions were included in the article. To consolidate the results, some minor points

that were not thematically linked to broader workshop discussions were omitted from the Results section.

Analysis of data from the post-workshop questionnaire

Descriptive statistical analysis of the post-workshop questionnaire consisted of evaluating the frequency of responses for each Likert-type question. Responses to the open-ended questions were reviewed by the research team, and broad themes were identified using the qualitative methodology described earlier.

RESULTS

Perceived barriers to and facilitators of improving pain education in Canadian physiotherapy programmes

Participants used four broad themes to categorize the barriers to and facilitators of improving pain education in Canadian physiotherapy programmes: (1) awareness of and changes related to the field of pain; (2) standards, guidelines, and regulatory processes associated with physiotherapy training and practice; (3) university-level physiotherapy training programmes; and (4) physiotherapy students and people living with pain. The workshop discussion points related to each of these themes are described next.

Awareness of and changes related to the field of pain

Awareness of the pain problem

Participants stated that it is currently unclear how aware people outside the pain research and practice domains are of the challenge of pain and pain education. They commented that the general population, health care community, educators, and administrators commonly believe that pain is a simple symptom of tissue injury or pathology, contrary to the current understanding of pain as a centrally modulated experience that can be a disease in its own right.¹ Therefore, clinicians, educators, administrators, and regulators who are not pain researchers may not recognize that there is a gap between best practices and current education. For instance, those who view pain as a symptom of an injury may believe that is already adequately addressed in the physiotherapy curriculum, which focuses on rehabilitation from injury. Participants

stressed the need to clearly explain the pain problem to non-experts and added that a related challenge was linking pain education to improved outcomes (a potentially long and resource-intensive research agenda).

Participants identified important opportunities for awareness, such as the growing interest and new resources in pain and pain education in both the physiotherapy community and other practice areas. This interest was seen to be facilitated by dynamic international educators and researchers and the growing number of professional development opportunities in the field of pain and physiotherapy. It was also seen to be facilitated through the work of important stakeholder groups, such as CPA's Pain Sciences Division and the Canadian Pain Coalition as well as by emerging technologies in the area of social media and communications. Participants agreed that all of these resources would help improve the recognition of the importance of pain and help clinicians and preceptors train the next generation of physiotherapists.

Pain as a field in transition

Participants described the field of pain research and practice as one that is in transition, with important recent developments. This transition has resulted in a gap between available research and current pain education, one that could lead to a narrow reliance on content experts for teaching and curriculum development. Participants identified this gap, and the limited number of people who might be positioned to address it, as an important barrier to advancing pain education.

Standards, guidelines, and regulatory processes associated with physiotherapy training and practice

Engaged stakeholders and favourable timing

Participants discussed the PPP project, a recent national initiative of the National Physiotherapy Advisory Group that aims to revise and update the Essential Competency Profile.¹⁸ The PPP project is related to the Essential Competency Profile for Physiotherapists in Canada,¹⁹ which describes the knowledge, skills, and attitudes required by Canadian physiotherapists at the beginning of, and throughout, their professional practice. The PPP project is expected to lead to updates to other national physiotherapy guidelines and standards as well, such as the Entry-to-Practice Physiotherapy Curriculum guidelines,²⁰ Accreditation Standards for Physiotherapy Education Programs in Canada,²¹ and Physiotherapy Competency Examination Blueprint.²²

Participants thought that the PPP project would have important downstream implications for shaping curriculum, competency examination, and accreditation standards across the country. They saw this as an important opportunity to emphasize pain education at each of these levels, one that could lead to an increased and more purposeful emphasis on pain in entry-level educa-

tion. Participants suggested that the timing of the PEP workshop aligned with the PPP project and regarded the participation and engagement of stakeholders from the accreditation, administrative, and regulatory sectors as an important facilitator of change.

Challenge of integrating pain into professional standards and guidelines

Participants also discussed the challenges of integrating pain-related themes into the Essential Competency Profile. For example, they thought that this high-level document did not address learning outcomes for curricula related to specific practice domains, such as pain management. They suggested that this might create barriers for integrating pain into the more detailed guidelines and standards that are based on the profile (e.g., Entry-to-Practice Physiotherapy Curriculum guidelines,²⁰ Accreditation Standards for Physiotherapy Education Programs in Canada,²¹ and Physiotherapy Competency Examination Blueprint²²). Because these documents can shape educational content, a lack of focus on pain might hinder incorporating pain into physiotherapy education.

Participants agreed that themes that were integrated into curriculum guidelines would become integrated into the physiotherapy curriculum; thus, not integrating pain into curriculum guidelines could result in a continued underrepresentation of pain in physiotherapy curricula, which could then contribute to inconsistencies across programmes. Similarly, participants suggested that not incorporating pain into the national examination blueprint could result in a decreased emphasis on pain on the exam, which might in turn prompt students to underemphasize pain in their education.

Participants suggested that despite the potential inability to directly incorporate pain competencies into the revised Essential Competency Profile, there may be indirect avenues to increasing the focus on pain. For instance, there is a natural link between pain management and the professional competency of patient-centred practice; linking pain to this high-level theme might ensure that it is emphasized in subsequent documents, such as curriculum guidelines.

University-level physiotherapy training programmes

Lack of standardization across programmes

Participants identified an overall lack of standardization of pain content across physiotherapy programmes in Canada and saw this as a symptom of a general lack of tenure-stream faculty in the area of pain. They suggested that institutions that have a tenure-stream faculty in this area tend to have increased pain content compared with universities that do not. This disparity could make it more challenging to adopt unified changes across the country.

Integrating new pain content into an already full programme

Participants reported that entry-level physiotherapy programmes at most Canadian universities are 2-year, non-thesis master's degree programmes, and they generally considered them to already be full with required content and courses. Therefore, these programmes might not permit sufficient time for students to learn, in depth, the complexities of pain. Adding pain content could also be a complicated process and one with potential consequences, such as having to remove content from other areas. This might be easier in Quebec, where additional undergraduate physiotherapy-related courses might be able to address pain content that cannot be integrated into the 2-year master's programmes.

Opportunities for and barriers to consolidation and collaboration

Participants suggested that there is a need for consolidation and collaboration across the physiotherapy curriculum, physiotherapy educators, and other health care professions (e.g., occupational therapy, medicine, nursing) in Canada. Pain was particularly well suited for inter-professional education, but important barriers to this type of education exist, including (anecdotally) poor communication and limited coordination among health care professional programmes. Participants considered clinical placements to be important opportunities for consolidating learning because students interacted directly with people living with pain and could bring their key moments back to the classroom. However, participants suggested that there were few dedicated pain placement opportunities. If these experiences were properly incorporated into the physiotherapy curriculum, they could encourage students to recognize the importance of the therapeutic relationship and the subjective experience of pain.

Organized and engaged pain educators

Participants suggested that there is growing interest in improved pain education for physiotherapists in Canada. For example, an informal community of practice has formed among Canadian pain educators, called the Pain Education in Physiotherapy Curriculum Initiative (PEPCI). Participants considered this group to be engaged and organized, and they expected it to continue to champion this initiative across the country, thus helping to advance this agenda from within their own institutions.

Physiotherapy students and people living with pain

Interest in pain

Participants talked about the fact that students might not initially find pain content stimulating. However, high-profile researchers, educators, and clinicians are increasing the interest in pain across the profession, and this might help change students' perceptions.

Complexity of pain

Participants suggested that the complexity of pain posed a challenge for students who had limited clinical experience and were just beginning to consolidate their approach to clinical practice. For example, some aspects of pain education might be better suited for post-licensure training.

Engaged advocacy groups

Engaged advocacy groups for people living with pain (e.g., the Canadian Pain Coalition, Arthritis Society) were seen as being well positioned to support the education provided in entry-level physiotherapy programmes.

Potential strategies for improving pain education in Canadian physiotherapy programmes

Participants highlighted the multilevel nature of the barriers to and facilitators of improving pain education and suggested that potential solutions should be multi-pronged and cut across these different categories. Described next are the five strategies identified by participants.

Integrate pain competencies into national accreditation standards, examination blueprint, and physiotherapy curriculum guidelines

Physiotherapy Practice Profile project

Participants suggested collaborating with the ongoing PPP project—for example, by formally presenting the workshop findings at an upcoming PPP project meeting. They also suggested that pain content could link to specific competencies related to the PPP project, such as patient-centred models of care and inter-professional team management. It was also suggested that a Canadian-specific endorsement of the curriculum guidelines (potentially related to the IASP recommendations) would help communicate the essential pain education content of importance to the PPP project team members.

Canadian Council of Physiotherapy University Programs

It was suggested that integrating pain content into the framework that the Canadian Council of Physiotherapy University Programs (CCPUP) uses to develop curricula would facilitate its integration into physiotherapy education programmes. For example, the CCPUP Curriculum Guidelines²⁰ currently organize curricula into four practice areas (musculoskeletal, cardiorespiratory, neurological, and multi-systems) and four areas of expertise (assessment, implementation, evaluation, and ethics and professionalism); by addressing simple to complex forms of pain across all practice areas and areas of expertise, the guidelines would conceptualize chronic pain as a multisystem condition and integrate it into other content areas.

Participants suggested that students should also be educated about the risk factors and predictors of chronicity, perhaps facilitated by emerging clinical tools de-

signed to incorporate therapeutic outcomes into clinical practice. They also suggested that current clinical education checklists used by Canadian physiotherapy programmes to ensure students are exposed to a sufficiently wide range of patient populations be modified to specifically incorporate patients living with pain conditions.

Educational institutions

Participants suggested that endorsed pain curriculum guidelines could be incorporated into physiotherapy pain curricula by bringing them to the curriculum committee in each university program. Participants thought this could lead to three subsequent steps: (1) mapping what is currently being covered in a programme; (2) combining the content expertise of pain educators and the educational expertise of faculty to address any unmet competencies and content identified after the mapping exercise; and (3) establishing a champion at each university who is an expert in pain and who would be well positioned to lead the curriculum mapping and integration of pain throughout the curriculum.

Encourage the development of best teaching practices, resources, and self-assessment for pain education

Institutional self-assessment (i.e., programme evaluation) was seen as a valuable tool to identify what pain content is currently being delivered and how it is being delivered. Participants suggested that pain educators and programmes should be prompted to reflect on whether best teaching practices are being used and to take advantage of the teaching and learning resources at their institution. They could also consider non-traditional ways of teaching pain content. Participants suggested that pain educators across the country should also be collaborative and share resources. For example, platforms for sharing teaching methods, materials, and best practices could improve the consistency and quality of pain education, and they could be implemented using a referatory (i.e., a directory for educational resources) or community of practice. Participants also suggested that implementing these strategies would best be facilitated by a pain champion at each institution who is a skilled collaborator.

Partner with people living with pain

Participants recommended building partnerships with people living with pain, which could be an important benefit to students' education. Learning activities could include videos, interviews, examinations, and in-person visits in the classroom, and people living with pain could also be integrated as collaborators in curriculum design.

Build awareness of the importance of pain education for physiotherapists

Participants suggested that an awareness campaign might help physiotherapists identify themselves as pain practitioners. This would help physiotherapists who do

not currently self-identify as pain practitioners despite seeing many patients who seek their care because of pain. This campaign could be facilitated by the IASP's planned 2018 Global Year for Pain Education. Another campaign strategy could focus on raising awareness among non-pain experts about the personal and societal burden of pain and how education could address this problem.

Workshop participants suggested that the campaign to improve awareness of the need for pain education should target the physiotherapy programme leadership group CCPUP as well as students. For CCPUP, strategies could focus on presenting at upcoming meetings; for students, the focus could be on generating excitement and engagement at the pre-professional level, such as by nominating class-specific pain champions, setting up social media campaigns, and developing other innovative engagement strategies.

Set clear goals and assess outcomes

Regardless of the specific strategies that might be undertaken to improve pain education in Canadian physiotherapy programmes, participants highlighted the importance of setting clear, measurable goals for this initiative. These goals could include assessing learning outcomes and competencies, health outcomes, and students' perceptions and beliefs.

Consensus statement

Abstentions

As the consensus statement was being drafted, the group discussed its purpose, intended use, and implications for different stakeholder groups. Participants representing the regulatory and advisory groups did not think they had a mandate to vote on a draft statement, and they were concerned that endorsing a draft would be a conflict of interest with their roles in the organizations they represented. Before determining the focus for the consensus statement and initiating the drafting process, participants associated with the Canadian Alliance of Physiotherapy Regulators, Physiotherapy Education Accreditation Canada, and the PPP project decided to abstain from the voting process. Other participants supported this decision, and all participants then proceeded to discuss and draft the statement.

Themes

Participants decided to focus the consensus statement on two themes: (1) the scope and importance of the problem and (2) the need for a reference standard in pain education. Participants drafted, discussed, and edited the text on each theme. Once no further edits were proposed, a vote was called. Three participants abstained (as noted in the preceding section), and the voting participants unanimously endorsed the consensus statement.

Box 2 Stakeholder-Endorsed Consensus Statement

Pain represents a substantial personal and societal burden in Canada and intersects with all aspects of physiotherapy practice. Physiotherapists play a leading role in the management of pain. Historically, pain was solely viewed as a symptom of an underlying pathology, but recent evidence indicates that chronic pain can be considered an important health concern in its own right. Despite the demonstrated effectiveness and availability of pain management strategies that can be provided by physiotherapists, patients do not always benefit from this knowledge or receive this care. There is currently a gap between entry-level pain education and the International Association for the Study of Pain guidelines. Pain education must represent a core component of physiotherapy education and practice.

Recent research suggests variability across Canadian university programs in the quantity, content, and mode of delivery of pain education and in the importance assigned to this topic. A standard is needed to guide and improve the consistency of entry-level pain physiotherapy education. This standard must include operational definitions of pain, pain education, and pain management. The standard must include a minimum set of competencies for entry to practice. This standard will be informed by current clinical and educational best evidence as well as input from stakeholders, including people with pain, students, health care providers, and pain educators. This standard is intended to inform national curriculum guidelines, physiotherapy curricula, the entry-level competency examination, and accreditation standards.

Table 2 Participants' Responses to Post-workshop Questionnaire

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I felt my perspective was valued throughout this workshop.	–	–	–	1	12
I felt the workshop was effective in establishing a collaborative relationship between stakeholders.	–	–	–	2	11
I felt the workshop was effective in identifying barriers and facilitators for integrating curriculum guidelines across Canada.	–	–	–	5	8
I felt the workshop was effective in identifying strategies for integrating curriculum guidelines across Canada.	–	–	1	7	5
I felt the workshop was effective in developing a stakeholder-endorsed consensus statement regarding the value, scope, and depth of pain education in Canadian physiotherapy programmes.	–	–	1	4	8
I am satisfied with the outcomes of this workshop.	–	–	–	4	9
I plan to stay engaged with this project following the workshop.	–	–	–	8	5
I plan to engage other members of my stakeholder group in themes related to this workshop.	–	1	–	5	7

Note: The questionnaire was completed by 13 participants.

Final statement

After the workshop, participants made minor amendments to the final consensus statement. Amendments focused on improving clarity and did not include any content changes. The final, approved consensus statement is shown in Box 2.

Post-workshop evaluation

All 13 participants completed the post-workshop questionnaire, and their responses to the Likert-type questions are presented in Table 2. The findings suggest a high level of satisfaction with the workshop, with nearly all respondents either agreeing or strongly agreeing with the statements describing its value and effectiveness. Responses to the open-ended questions were consistent with this high level of endorsement. Several participants stated that the workshop had given them a deeper and more comprehensive understanding of the issues related to improving pain education.

DISCUSSION

In this KT project, we sought to bring together key stakeholders in the areas of physiotherapy and pain education to discuss how to advance pain education in

Canadian physiotherapy programmes. The PEP workshop yielded several important outcomes. First, it identified barriers and facilitators related to (1) the field of pain itself, (2) the processes governing physiotherapy education, (3) the processes governing related educational institutions, and (4) the targets of pain education: physiotherapy students and people living with pain. Second, it identified five potential strategies for advancing pain education: (1) integrating pain competencies into accreditation standards, curriculum guidelines, and the entry-to-practice examination blueprint; (2) developing teaching practices, resources, and self-assessment; (3) partnering with people living with pain, (4) building broad awareness of the importance of pain education for physiotherapists; and (5) setting clear goals and assessing outcomes.

Finally, the workshop yielded a stakeholder-endorsed consensus statement that stressed the central importance of pain education for physiotherapists and the need for a reference standard to guide its implementation in the Canadian context. These outcomes extend previous research in the area of pain education and provide a strong stakeholder mandate and direction for advancing pain education across Canadian physiotherapy programmes.

Past research on pain education has largely focused on surveying educators and administrators on the pain content in physiotherapy curricula and the development of consensus recommendations and guidelines in this area.^{6,7,10} This work has shown that there is an overall modest focus on pain in current physiotherapy and health care professional programmes.^{6,7} It has also yielded consensus curriculum recommendations for educating physiotherapists about pain.¹⁰ The current study builds on this work by being the first project in this field to explore stakeholders' perceptions of the advancement of pain education. The participation of stakeholder groups at the national level will help ensure that the outcomes from this project facilitate change in pain education across Canada.

Workshop discussions stressed that developing curriculum guidelines is essential, but only a starting point in advancing pain education. Past research has suggested that physiotherapy programme directors across North America have only limited knowledge of these guidelines: Fewer than 22% are aware of their existence.⁶ Discussions revealed mixed support for the IASP guidelines; some participants thought they were too extensive, and others thought they were appropriate. It was interesting that even though the pre-workshop stimulus paper introduced the stakeholders to the IASP guidelines, there was still consensus on the need for a reference standard specific to the Canadian context (see the consensus statement in Box 2). This is consistent with the literature emphasizing the importance of contextualizing KT efforts to the local environment.¹¹ We expect that reaching consensus on a reference standard among the stakeholder groups represented in this study will be a key step in the forthcoming strategic plan.

One potential barrier to integrating the IASP guidelines into the Canadian physiotherapy curriculum is that they may be perceived as too unwieldy for non-pain experts. The guidelines include more than 100 items and may be considered too complex. Instead, stakeholders may prefer to focus on the inter-professional core competencies in pain management.^{10,23} These high-level competencies were developed during expert consensus meetings and include 21 items, organized into four domains. Although these competencies are not specific to physiotherapy, they may be more accessible to stakeholders in this field who are less familiar with pain. Additional data on mapping both curriculum guidelines and core competencies to current pain education content and evaluating stakeholders' level of endorsement of these documents are needed to guide how we can move forward in Canada.

This study lays an important foundation for developing a more detailed strategic plan that is supported by the workshop stakeholders; Phase 2 of the PEP project will focus on this outcome. The process will be facilitated by our findings that several of the strategies discussed

in this workshop align with several of the facilitators for advancing pain education that were discussed. For instance, the temporal alignment of the PEP and PPP projects, along with the high-level engagement of national advisory groups, will facilitate the integration of pain competencies into national guidelines and standards; the comprehensive national network of engaged pain educators (through PEPCI) will guide the development of teaching practices, resources, and self-reflection; the engagement of national patient advocacy groups will help forge partnerships with people living with pain; and the collaboration of professional associations and special interest groups (e.g., CPA and its Pain Science Division) will help develop an awareness of the importance of pain education for physiotherapists. Despite these identified facilitators, their long-term success will be contingent on the sustained engagement of all the stakeholder groups that participated in the workshop.

One overarching strategy that remains to be addressed is how to assess effective pain education, and the importance of assessment strategies was highlighted throughout the workshop discussions. Although participants suggested several strategies (e.g., assessing student learning outcomes and patient health outcomes), clear guidelines for assessment still need to be developed as pain education strategies are implemented. A consensus workshop that brings together leaders in pain, pedagogy, and assessment strategies may help drive this issue forward.

The current project had certain limitations that must be kept in mind. Although a major strength was including stakeholder representation from a comprehensive mix of national leaders in physiotherapy education and regulation, the stakeholder organizations were represented by only one individual each. In planning the workshop, we made it a priority to have in-depth and interactive discussions, and we believed that a smaller group would facilitate this. Participants' high level of endorsement on the post-workshop questionnaire suggests that participants valued this emphasis. However, having additional representation would have helped integrate the workshop themes into the priorities of the stakeholder organizations. Future efforts are needed to secure the engagement of other members of the stakeholder groups; for example, members of the research team could conduct individual interviews and meetings with them.

CONCLUSION

This project helps advance the emerging line of KT research in the area of pain education by generating a stakeholder-endorsed consensus statement on the central importance of pain education for physiotherapy students and the need for a reference standard in this area. Workshop participants also identified important barriers and facilitators related to the field of pain, standards and regulatory processes, educational institutions and programmes, and people living with pain and physiotherapy

students. Strategies for improving pain education focused on (1) integrating pain competencies into standards and regulatory processes; (2) developing teaching practices, resources, and self-assessment; (3) partnering with people living with pain; (4) building broad awareness of the importance of pain education for physiotherapists; and (5) setting clear goals and assessing outcomes. Future research will need to develop consensus on a reference standard and measurement strategies for pain education in Canada.

KEY MESSAGES

What is already known on this topic

Physiotherapists play an essential role in managing pain across the health care continuum. However, the focus on pain education in entry-level physiotherapy programmes is currently limited, and this may be contributing to the existing gaps between pain research and clinical practice.

What this study adds

This initiative was the first project to specifically explore national stakeholders' perceptions of the advancement of pain education in Canada. The workshop provided an overview of the important barriers to, facilitators of, and strategies for advancing pain education in the country and produced a consensus statement that highlighted the central importance of pain education for physiotherapists and the need for a reference standard to guide its implementation in the Canadian context.

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