Examining the Need for a New Instrument to Evaluate Canadian Physiotherapy Students during Clinical Education Experiences

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ABSTRACT

Purpose: To gauge the need for a new assessment instrument for Canadian physiotherapy students on clinical placements. **Methods:** A national survey was developed and distributed to 18,110 Canadian physiotherapists. **Results:** A total of 3,148 physiotherapists from diverse practice settings responded to the survey. Of those who indicated that student evaluation was applicable to them ($n = 2,393$), 70% stated that a new instrument was needed; of these, 78% felt that the new instrument should be based on Canadian practice standards and rated with an anchored visual analogue scale, and 73% said they would be comfortable completing the instrument online. **Conclusion:** The majority of physiotherapists surveyed perceive a need for a new clinical evaluation instrument based on Canadian practice standards. A shorter, Canadian-based instrument may help recruit more clinical instructors and build capacity for clinical placements.

Key Words: educational measurement; students; survey.

RÉSUMÉ

Objectif : Évaluer la nécessité d'un nouvel outil d'évaluation pour les étudiants en physiothérapie du Canada en stage clinique. **Méthodes :** Un sondage national a été mis au point et distribué à 18 110 physiothérapeutes canadiens. **Résultats :** Un total de 3 148 physiothérapeutes provenant de divers contextes de pratique ont répondu au sondage. Des physiothérapeutes qui ont indiqué que l'évaluation des étudiants s'applique à eux ($n = 2 393$), 70 % ont affirmé qu'un nouvel outil est nécessaire; de ce groupe, 78 % sont d'avis que le nouvel outil devrait être fondé sur les normes de pratique canadiennes et qu'il devrait utiliser une échelle analogique visuelle présentant deux valeurs extrêmes, et 73 % ont affirmé qu'ils n'auraient pas de difficulté à remplir l'outil d'évaluation en ligne. **Conclusion :** La majorité des physiothérapeutes qui ont répondu au sondage jugent qu'un nouvel outil d'évaluation fondé sur les normes de pratique canadiennes est nécessaire. Un outil plus concis et axé sur le contexte canadien pourrait contribuer au recrutement d'un plus grand nombre d'enseignants cliniques et accroître la capacité destinée aux stages cliniques.

Clinical education (CE) is an important and substantial component of physiotherapy students' education that permits the application of classroom knowledge and professional socialisation in a real clinical environment under the supervision of a clinical instructor (CI).¹ The role of the CI is to mentor, observe, and assess students during their CE experiences and to provide feedback to guide and improve performance. During clinical placements, students' knowledge, skills, and behaviours are assessed and compared with a reference standard; students must meet the expectations for each placement to progress to the next level. Assessing students' performance in the clinical environment is important in deter-

mining their competence,² and the assessment tools used to make decisions about competence must be "robust, feasible and of educational value" and provide a valid measure of performance.^{2(p.488)} However, the instrument currently used to assess Canadian physiotherapy students in CE has been identified as contributing to a shortage of clinical placement offers.³

At present, most Canadian university programmes in physiotherapy evaluate students using the 1997 Physical Therapist Clinical Performance Instrument (CPI), a 24-item instrument developed and validated by the American Physical Therapy Association.⁴ The CPI is based on US practice standards and education guidelines^{5,6} and

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includes a visual analogue scale (VAS) anchored by the performance indicators *novice clinical performance* and *entry-level performance*, with comment boxes for each criterion as well as summative comment boxes.⁴ Together, the 24 criteria (including safety, professional behaviour, assessment, intervention, and discharge planning) are reported to represent a physiotherapist's competence.⁴ The skills required of a competent Canadian physiotherapist are described under the seven roles of the Essential Competency Profile for Physiotherapists in Canada (ECP);⁷ although these skills are very similar to those described in the US competency standards, the practice context, language, and legal requirements differ.

Recently, academic coordinators of clinical education have reported CI dissatisfaction with the time required to complete the CPI and its lack of applicability to the Canadian context,⁸ but little research has corroborated these reports.⁹ In a previous study, we identified the CPI as a factor in physiotherapists' decision about whether to supervise a student and confirmed physiotherapists' dislike of the instrument.³ This study highlighted the length of time to complete the CPI and its lack of applicability to the Canadian context. As Canadian physiotherapy programmes struggle to increase clinical placement capacity, it is crucial to address the use of an evaluation instrument that discourages physiotherapists from supervising students.

Although the CPI has been established as a contributor to Canadian physiotherapists' decisions about whether to supervise students, whether a new instrument was needed was less clear. The findings of a preliminary study by Anderson and colleagues,¹⁰ which reported on focus groups comprising of 27 physiotherapists from both public and private practice across Canada, indicated a need for change in how students on clinical placement are evaluated and suggested that these evaluations should be based on the ECP.¹⁰ Some participants felt that a rating scale with clear and defined performance anchors was needed to enable them to provide appropriate feedback to students, and others felt that anchor points would be restrictive and preferred a scale on a continuum or one with more intermediate rating points.¹⁰ Although this qualitative study presented important findings, it represented the perspectives of only a small portion of the population.

The purpose of the current study, therefore, was to provide cross-sectional, national data on physiotherapists' perceptions of the need to develop a new instrument to evaluate Canadian physiotherapy students during CE experiences and, if that need exists, to determine what features CIs believe the new instrument should have.

METHODS

This study is part of a larger survey of Canadian physiotherapists that identified the contributors to their decisions about whether to supervise physiotherapy students.³ All

actively practising Canadian physiotherapists registered with a provincial regulatory college ($n = 18,110$) were sent an email by their college inviting their participation in an anonymous online survey; completion of the survey implied consent to participate in the study. The survey remained open for 3 weeks, and although the number of reminder emails varied, each college sent at least one. The development and validation of the online survey, as well as primary results from the survey, have been reported elsewhere.³

Survey items were intended to measure physiotherapists' opinions on whether a new instrument was needed and whether it should be based on the ECP. Questions also addressed respondents' perspectives on the desired format, the assessment rating scale, and training required to use a new instrument. Respondents also had the opportunity to provide comments about a new instrument. The survey used skip logic,¹¹ such that only those respondents who indicated that a new instrument was needed were asked further questions about the development of such an instrument. We analyzed the survey data using descriptive statistics (mean, median, range, and frequency distributions) and conducted a content analysis of respondent comments, using representative quotes to support the quantitative findings. Approval for this study was granted by the Health Research Ethics Board of the University of Alberta.

RESULTS

A total of 3,148 physiotherapists from all provinces and territories, representing diverse practice settings and practice areas, responded to the survey (a response rate of 17%). Of those who indicated that student evaluation was applicable to them ($n = 2,393$), 70% ($n = 1,683$) identified a need for a new evaluation instrument to assess physiotherapy students on clinical placement. On the basis of this clear mandate for a new instrument, all subsequent data reported here are from this subset of 1,683 respondents. Demographic data for survey respondents and for the national physiotherapy population are presented in Table 1.

Of the respondents who responded "yes," 1,050 (63%) reported having supervised between one and five students in the previous 3 years, 292 (17%) had supervised more than five students, and 341 (20%) had not supervised any students in that period. Respondents agreed or strongly agreed ($n = 1,310$; 78%) that a new instrument should be based on Canadian practice standards, represented by the ECP; 5% reported applying the seven key roles in the evaluation of physiotherapy students, 20% had read the ECP and understood its application to their practice setting, a further 20% reported having only read it, and 55% had heard about the ECP but never read it. When asked to choose their preferred rating scale or scales from a choice of eight scales, 1,045 chose a VAS with six defined anchors; 615 chose a 5-point Likert scale

Table 1 Demographic Data for the Full Sample, for the Subset of the Sample Who Responded “Yes” Regarding the Need for a New Evaluation Instrument, and for the National Physiotherapy Population

Variable	No. (%) of responses*		
	Sample (<i>n</i> = 3,148)	Responding “yes” (<i>n</i> = 1,683)	Population (<i>n</i> = 18,469)†
Gender			
Female	2,607 (83)	1,407 (84)	14,204 (77)
Male	520 (17)	265 (16)	4,265 (23)
Age, y, mean (SD)	42.41 (10.62)	41.67 (10.63)	42.0
Experience, y, mean (SD)	17.87 (11.36)	16.89 (11.44)	N/A
Work full time	1,983 (65)	1,131 (69)	8,810 (65)
Supervised at least 1 student in past 3 years	1,895 (63)	1,250 (74)	N/A
Practice location			
Urban	2,513 (80)	1,400 (84)	16,626 (90)
Rural	566 (18)	133 (8)	745 (4)
Remote	49 (2)	19 (1)	713 (4)
Practice area‡			
MSK	1,940 (62)	953 (57)	5,606 (41)
General practice	1,000 (32)	530 (32)	4,419 (32)
Neurology	918 (29)	552 (33)	949 (7)
Cardiorespiratory	528 (17)	343 (20)	508 (3)
Practice setting‡			
General hospital	1,045 (37)	699 (44)	6,288 (34)
Rehabilitation facility	497 (18)	367 (23)	1,437 (8)
Private practice	885 (32)	389 (25)	6,308 (34)

*Unless otherwise indicated. As not all participants responded to every item, percentages in this table are out of total responses to each item.

†Indicates values based on Canadian Institute for Health Information (CIHI) physiotherapy population statistics for 2012.¹²

‡CIHI reports primary practice area only; respondents were asked to select all that apply.

N/A = data not available; MSK = musculoskeletal.

with only the extreme anchors defined; and 410 chose a 5-point Likert scale with each anchor defined.

When respondents were asked about the maximum amount of time they would be willing to spend completing the evaluation instrument, the median response was 45 minutes (inter-quartile range [IQR] = 30–60 min); the median response for the maximum time to review the evaluation with the student was also 45 minutes (IQR = 30–60 min). Seventy-three percent (*n* = 1,237) of respondents responding “yes” indicated that they would be comfortable or very comfortable completing the evaluation online. With respect to training to use a new instrument, 40% preferred an online training module; 33%, an in-person workshop; 18%, an online workshop or webinar; and approximately 9%, other options. Only 1% felt no training was needed.

A total of 337 respondents provided comments; our analysis revealed a consensus that a new instrument based on Canadian practice standards is urgently needed: for example, “Must be aligned with Canadian practice standards otherwise it is irrelevant,” “It’s about time,” and “Long overdue.” Respondents advocated a simple, easy-to-use instrument—“shorter, please”—and some preferred an online version: “It is time for a new electronic evaluation tool.” Some even asked that we “please hurry.” A few respondents also commented on the applicability and usability of the CPI: “The CPI is not totally

terrible, it is just terribly long, and not all components are applicable.”

DISCUSSION

Our results, which reflect a national, cross-sectional sample, indicate that physiotherapists perceive a need for a new instrument to evaluate Canadian physiotherapy students during clinical education, as highlighted initially by focus-group participants.¹⁰ Our findings point to two considerations for the development of such an instrument and an implication for the profession as a whole. First, to improve measurement consistency and accuracy of performance to standards in the Canadian context, the instrument should be based on the ECP. A national instrument reduces the burden on CIs supervising students from multiple universities, and standardisation ensures that all students are assessed against explicit standards for entry-level practice.¹³ Australia experienced similar challenges, and the need for standardisation fueled the development of the Assessment of Physiotherapy Practice (APP), now in use across that country.¹³

In Canada, Murphy and colleagues⁸ piloted the APP with students and CIs from the University of British Columbia who worked in a range of practice settings and areas of practice. The APP is shorter than the CPI, uses terminology similar to that used in Canada, and uses domains of assessment that map well onto the

ECP.⁸ Murphy and colleagues⁸ reported that CIs and students preferred the APP to the CPI and considered the APP's completion time acceptable; they found overwhelming support for the APP, with only one CI preferring to continue using the CPI. These findings and those of Anderson and colleagues¹⁰ reinforce the results of our survey and point to the second implication for instrument development. Clinical instructors prefer a shorter instrument with objective performance indicators that provides clear and meaningful objective feedback to students and is less onerous to complete. A user-friendly Canadian instrument may persuade physiotherapists discouraged by the length and applicability of the CPI to become involved with student CE, which may begin to address one of the causes of reduced clinical placement capacity.

Involvement beyond CIs is important during the development and field testing of a new instrument. Additional input should be sought from academic partners and other physiotherapy education stakeholders to ensure that a new instrument meets the assessment needs of education programmes and licensing agencies. The CPI underwent substantial pilot and field testing during its development and is considered a valid and reliable measure of student clinical performance;⁴ a new instrument will need to undergo similarly rigorous development and testing procedures to ensure that decisions made about student performance are also reliable and valid.

Finally, our findings have important implications for the profession. More than 50% of respondents said they had heard about the ECP but had never read the document that defines their competence as physiotherapists. This finding suggests that more work may be needed to familiarise and educate physiotherapists about national competency documents and the knowledge, skills, and behaviours required of a physiotherapist practising in Canada.

Two limitations should be considered when interpreting our survey data, related to response rates and the generalizability of our results and to the use of self-report surveys. Our response rate of 17% may be considered low; however, our sample represents diverse practice areas and practice settings, with respondents from each province and territory in Canada. Although our recruitment efforts attempted to include all practising physiotherapists, our sample is likely more representative of supervising physiotherapists, who may be more invested in physiotherapy CE, more familiar with the CPI, and, for both of these reasons, more likely to complete the survey. Finally, self-report surveys may be susceptible to bias in this situation because respondents may have particularly strong views about the subject area. It remains clear that an overwhelming majority of our respondents believe that a new Canadian instrument is needed.

CONCLUSION

Canadian physiotherapists perceive a need for the development of a new evaluation instrument to assess students during clinical education experiences that is based on Canadian physiotherapy competency standards. Considering the challenges associated with clinical placement capacity and the identification of student evaluation as a factor in physiotherapists' decisions about supervising students,³ physiotherapists' opinions from this study and that of Anderson and colleagues¹⁰ should inform the development of a new instrument. A shorter, Canadian evaluation instrument may be helpful in recruiting physiotherapists interested in physiotherapy CE and may contribute to building clinical placement capacity.

KEY MESSAGES

What is already known on this topic

Physiotherapists' opinions of the Clinical Performance Instrument and the evaluation of students have until recently been largely anecdotal. Current literature reports findings from qualitative studies that may not be generalizable to the national population.

What this study adds

Our study provides a cross-sectional account of physiotherapists' opinions related to the CPI and the evaluation of students that reinforces previous anecdotal accounts. We provide a foundation for the development of a new evaluation instrument for Canadian clinical education experiences.

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