What Clinical Instructors Want: Perspectives on a New Assessment Tool for Students in the Clinical Environment

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ABSTRACT

Purpose: Many Canadian physical therapy education programs use the 1997 version of the Physical Therapist Clinical Performance Instrument (PT-CPI) to evaluate students in their clinical placements. Recent evidence that clinical instructors (CIs) are unsatisfied with the PT-CPI, however, suggests a need to develop a new assessment tool. The purpose of this study was to gather Canadian CIs' perspectives on rating scales, preferred training methods, and format for future tool development. **Methods:** This qualitative descriptive study involved five focus groups from across Canada. English-speaking CIs who had supervised at least one Canadian student in clinical practice were eligible for the study. **Results:** Participants identified concerns with the PT-CPI and indicated a preference for (1) more objective rating scales with clearly defined anchors, (2) both in-person and online training methods for CIs, and (3) a tool that could be completed and reviewed on paper or online. **Conclusions:** CIs affirmed the need to develop a new assessment tool. Results of the study will be used to inform the development of a new assessment tool to better evaluate Canadian physical therapy students' performance in the clinical setting.

Key Words: clinical competence; educational measurement; students.

RÉSUMÉ

Objectif: Beaucoup de programmes canadiens d'éducation en physiothérapie utilisent la version 1997 de l'Instrument d'évaluation du rendement clinique des physiothérapeutes (ERC-PT) pour évaluer les étudiants au cours de leurs stages cliniques. Des données récentes selon lesquelles les enseignants cliniques (EC) sont insatisfaits de l'ERC-PT indiquent toutefois qu'il faut créer un nouvel outil d'évaluation. Cette étude visait à réunir les points de vue des EC du Canada au sujet des échelles d'évaluation, des méthodes de formation privilégiées et du format d'élaboration d'outils futurs. **Méthodes:** Cette étude descriptive qualitative a mis à contribution cinq groupes de discussion de toutes les régions du Canada. Les EC anglophones qui avaient supervisé au moins un étudiant canadien en pratique clinique étaient admissibles à l'étude. **Résultats:** Les participants ont dégagé des préoccupations au sujet de l'ERC-PT et indiqué une préférence pour (1) des échelles d'évaluation plus objectives comportant des points de comparaison définis clairement, (2) des méthodes de formation en personne et en ligne pour les EC et (3) un outil qu'il serait possible de remplir et d'évaluer sur papier ou en ligne. **Conclusions:** Les EC ont affirmé qu'il fallait mettre au point un nouvel outil d'évaluation. Les résultats de l'étude serviront à éclairer l'élaboration d'un nouvel outil d'évaluation afin de mieux évaluer le rendement des étudiants en physiothérapie du Canada en contexte clinique.

This article discusses the results of a study aimed at informing the development of a Canadian clinical performance tool for physical therapy students. Clinical performance is the execution of skills and demonstration of desired professional behaviours in a variety of clinical settings.¹ An American-based tool, the Clinical Performance Instrument (PT-CPI, December 1997 version²) was adopted by Canadian physical therapy education programs between 1998 and 2001.³ However, many academic coordinators of clinical education (ACCEs) and

directors of clinical education (DCEs) from across Canada have determined that the PT-CPI does not adequately meet the needs of Canadian programmes.⁴ Discussions at the level of the National Association for Clinical Education in Physiotherapy (NACEP) suggest a consensus that the PT-CPI can be a barrier to supervising students, both because of the time required to complete it and because some behaviours are not applicable to Canadian practice, which may make physical therapists less inclined to supervise students.³ The need for a valid and reliable

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Canadian evaluation tool that addresses the concerns of programs and the needs of clinical instructors is clear.

ACCEs, DCEs, and academic chairs/directors from across Canada have agreed that the content of the new tool should be based on the Essential Competency Profile for Physiotherapists in Canada (ECP, 2009), which outlines the essential competencies for practising Canadian physical therapists.⁴ However, other elements are also important to consider before content development. As a preliminary step in a multistage development process, our qualitative study aimed to explore the perspectives of Canadian clinical instructors (CIs) on the rating scales, training, and delivery format of the ideal clinical performance tool. The information gathered from this study will help to lay a foundation for the development of a new tool to assess Canadian physical therapy students' clinical performance.

BACKGROUND

A variety of factors must be considered in designing an assessment tool. Our study focused on rating scales, training, and delivery format. In a clinical assessment tool, CIs use rating scales to measure and communicate students' clinical performance; for the tool to be effective and informative, it is important that CIs find the rating scale easy to use and that the scale provides an accurate depiction of students' abilities.⁵ Streiner⁶ suggests that because clinical performance is a dynamic variable, it is best measured by direct estimation scales, which are designed to obtain a quantitative estimate of the variable being measured and are most widely used in clinical settings.⁷ Two of the most prevalent direct estimation scales are the Visual Analogue Scale (VAS) and the Likert scale.⁸

The American PT-CPI uses a VAS with the specific anchors "novice-level performance" and "entry-level performance."² While the reliability of the scale has been well established, some have argued that users are not able to respond with a high degree of precision, which decreases its validity.^{9,10}

The Likert scale offers an alternative means of direct estimation. This widely used format requires responders to express their opinion of a given construct by choosing a point on a scale that measures direction and intensity.¹¹ The popularity of the Likert scale is due to its ease of completion and interpretation as well as its convenience.⁸ It also has strong validity and reliability and has been shown to have high responsiveness, similar to that of the VAS.¹¹ That being said, reliability is related to the number of points used on the scale: five to seven points provide the highest level of reliability.⁸

Training and orienting CIs to any performance evaluation tool is very important in promoting correct interpretation and consistent application of the instrument. Thus, identifying preferred training options can assist in the future development of a training module that suits

the needs of CIs and has the potential to increase overall participation and use of the tool. While adequate training is known to increase compliance with and efficiency of tool use,¹² not all CIs are able to participate in PT-CPI training because of their clinical schedules.⁴

An Australian study of physical therapists, conducted to determine preferred training methods should in-person instruction not be feasible,¹² revealed that 43% of participating physical therapists favoured online training, 20% preferred teleconference, 20% opted for a manual and instructional DVD, and the remainder were undecided.¹² Other research has shown that while CIs acknowledge the importance of training in learning a new assessment tool, they prioritize clinical care over dedicated training time when given the option.⁴ Therefore, we explored alternative training methods and the amount of time physical therapists were willing to invest in being oriented to a new instrument.

Another important characteristic to consider in developing a new tool is the delivery format (i.e., paper based vs. online based). The PT-CPI currently used in Canada is a paper-based tool,² and thus requires time for photocopying, collecting, and distributing the tool to the student, the CI, and back to the ACCE/DCE. In a survey questionnaire, 41% of Australian CIs expressed a preference for an online-based tool, while only 20% preferred to continue using a paper-based tool.¹²

The specific purpose of this study was to determine CIs' preferences with respect to assessment tool rating scales, training methods, and delivery formats. Our results will be used to inform the development of a new Canadian-based evaluation tool.

METHODS

Study design

Our study used a descriptive qualitative design,¹³ consisting of five focus groups in four provinces across Canada from February to May 2012. The study was approved by the University of Toronto Health Sciences Research Ethics Board, and informed consent was obtained from all participants.

Participants

A total of 27 CIs from across Canada participated in the focus groups, each of which included between 2 and 11 participants. CIs were eligible if they were licensed/registered as physical therapists in Canada, were English speakers, and had supervised and evaluated at least one Canadian physical therapy student in their practice.

The University of British Columbia (Vancouver), McGill University (Montreal), Dalhousie University (Halifax), and the University of Toronto were selected because they provide reasonable national geographic representation. On behalf of the investigators, ACCEs and DCEs for each school sent out an introductory message outlining the

Box 1 Focus Group Guide

Q1: CPI	What are your thoughts on the format of the current CPI? What do you see as being the largest problem with the format of the current CPI? Why do you see this as being the largest issue?
Q2: Rating scales	What scale would you like to see be used to evaluate students' performance in the clinical setting? Which scale do you think is the easiest to use? Which scale do you think is most reliable among CIs? Which scale do you think is most easily communicated within the profession?
Q3: Format of delivery	What are some of the benefits of an online assessment form? What do you foresee as some of the challenges with an online form? Which would you prefer and why?
Q4: Training	What method of training do you see as being the most effective when being taught how to use a new assessment tool? What setting do you find most effective in learning a new assessment tool? (individual vs group, self-study vs instructor taught, etc.) What type of training do you think will lead to maximum execution of and participation and familiarity with a new tool? How much time are you willing to dedicate to learning a new tool?
Q5: Essential Competency Profile	What are your thoughts on using the Essential Competency Profile for physiotherapists in Canada as the basis for the new assessment tool?

study to all CIs in their catchment areas. Interested CIs then replied directly to the lead investigator of the research team. Once it was confirmed that interested participants met the inclusion criteria, they were invited to participate.

Data collection

We used two types of focus groups to collect the data. Some focus groups were conducted face-to-face, with all participants and the facilitators in one room; however, for reasons of feasibility, remote focus groups were conducted via teleconference or Skype in other areas. In the latter case, the facilitators were in one room and all participants were either in the same room or on the telephone in different locations. Because recruitment was voluntary and included anyone who was interested and met the inclusion criteria, the first four focus groups happened to consist entirely of CIs who worked in the public sector. Therefore, we recruited a fifth focus group from the Toronto catchment, specifically to capture the perspectives of private practice. This focus group was conducted face to face.

Each focus group followed a question guide that we developed using a structured interview strategy.¹⁴ The guide consisted of open-ended questions aimed at gathering the opinions of CIs on the rating scale, type of training, and format they would prefer for a new assessment tool, as well as their thoughts on the PT-CPI and the use of the ECP as the framework for developing a new tool. Prior to each focus group, we sent participants back-

ground reading on the ECP and the rating scales, with the goal of encouraging and supporting discussion and to ensure that all participants had the same basic level of knowledge on relevant topics. Participants also received the focus-group question guide before the session to allow them to reflect on their opinions ahead of time (Box 1).

One person (CA) facilitated four of the five focus groups while a different facilitator (BM) conducted the private practice focus group in Toronto. Each focus group was audio recorded and transcribed verbatim by two investigators who were not present during the session.

The wording and anchors on the rating scale examples distributed to participants before and during the focus groups were altered following feedback from the first three focus groups. The Montreal, Halifax, and Toronto groups received an example of one 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) and one VAS scale. Because all three groups expressed dissatisfaction with the language of the anchors on the example scales, the Vancouver and Toronto private-practice focus groups received examples of four ordinal and four VAS scales, with variations in anchor wording to reflect the suggestions from the previous focus groups. This iterative process allowed the facilitators to encourage further discussion through distributing an increased number of examples.¹⁵ The consistency of participants' responses to the rating scales may have been altered slightly, as the final two focus groups had additional examples to consider and discuss.

Data analysis

Our analysis began after the first focus group and continued until data collection was complete.¹³ Concurrent data analyses and collection allowed for constant comparison and refinement of the focus-group guides and rating scales for subsequent focus groups.¹⁴ Two team members conducted paper-and-pencil analyses, breaking the data down into individual comments and assigning codes to concepts that emerged from the data fragments.¹⁵ All team members then met to harmonize the codes and discuss emerging findings from all five focus groups.¹⁴ The study team discussed and identified consistencies under the three main categories of interest (rating scales, training, and format) from the five focus groups.

In this descriptive study, our goal was to obtain a strong representation of CIs from across Canada and to identify common preferences across different jurisdictions and practice areas to inform the development of the future tool. This goal was met through the reiteration of preferences found among focus groups. Reaching theoretical saturation was not our objective in this descriptive study, as we were not generating interpretive “themes” but gathering a range of opinions to inform further development of a tool.¹⁶

RESULTS

Overview

A total of 27 CIs participated in the study (see Table 1 for demographic data). Focus groups lasted an average of 45 minutes. The majority of participants were women (78%); participants had been CIs for a range of 6–31 years and had supervised between 5 and 50 students. The majority (82%) practised in publicly funded clinical facilities; 18% worked in the private sector.

PT-CPI

Broadly, CIs voiced their dissatisfaction with the PT-CPI and indicated the need for a more objective rating scale, a multi-modal training method, and access to both paper and online formats. One participant said,

I think this [PT-CPI] is probably the number one barrier. I hear a lot of people talk about, in terms of taking students, how long it takes to do the evaluation and struggling over it. They don't mind taking students per se, it's the evaluation. (FG-1)

More specifically, discussion across the focus groups identified three main concerns about the current tool: a lack of flexibility for the CI and student when reviewing and completing the tool; a lack of objectivity when ranking students on a rating scale; and the overall time required to properly learn and complete the assessment tool. At least one participant in each focus group stated that the PT-CPI is one of the main reasons physical therapists may hesitate to volunteer as CIs. One participant said that the PT-CPI's completion time limited the number of comments she provided.

Rating scales

Our analyses showed that four of the five groups tended to prefer a well-designed ordinal scale to a VAS; they perceived the ordinal scale as “less subjective” and therefore more likely to deliver a consistent, reliable, and objective indication of student performance: “The consensus from our site is that a Likert would make sense” (FG-1). Many CIs also believed that the VAS has poor inter-rater reliability and expressed a need for less ambiguity in the scale type to ensure consistency in how students are evaluated: “There seems to be a lot of inconsistency around how people fill it [the VAS] out, particularly with regards to how you are scoring the individual student” (FG-3).

Not everyone agreed, however. Participants in Focus Group 1 felt that Likert rating scales are too constricting for use in evaluating students, as they tend to force choices into a single category. Their comments suggest that they want increased flexibility and more, not less, subjective choice in responding:

It boxes you in too much; because the words are there, whereas, if you've got a line you can understand that there is [an] error. I think once you get into those boxes here it's too narrow . . . your answers aren't always going to fit in that box. (FG-1)

Table 1 Demographic Data of Study Participants

Characteristics	Focus Group (no. of participants)*					Total (27)	Mean
	1 (7)	2 (11)	3 (3)	4 (4)	5 (2)		
Sex							
M	1	1	1	3	0	6	2
F	6	10	2	1	2	21	4
Practice setting							
Public	7	11	3	0	1	22	4
Private	0	1	0	4	1	6	2
Years of clinical experience; range	7–31	7–29	9–20	6–15	11–23	7–31	9–24
No. of students supervised; range	5–35	10–50	20–27	6–21	12–28	5–50	11–32

Note: Groups are identified by number to protect confidentiality.

*Unless otherwise indicated.

Although CIs from Focus Group 3 preferred the Likert scale to the VAS, they suggested a continuum-type scale, using multiple anchors throughout to give CIs a clearer notion of where the students' rating should be placed on the line without forcing them to choose one specific category.

Participants stressed that although the type of scale is relevant, the wording and number of anchors used also need to be addressed. There was no consensus among participants as to the ideal number of anchors used in the scale. Participants indicated that there should be enough anchors to clearly define each area of the scale to provide a clear and interpretable ranking on the scale.

I feel like [there were] too many items in between the extremes; it can be a little mixed, overlapping, and a bit ambiguous. Even if they operationally define it, it can maybe lead to a bit more variation than needed. You need enough to make it clear and concise but not too overwhelming. (FG-4)

Training

Participants in all five focus groups acknowledged that CIs would benefit from a suite of different training options catering to varied learning needs. The two training methods consistently favoured across all five groups were (1) a self-taught online module (CIs would go through an online training session independently, at their convenience) and (2) an instructed session run by an expert (either in person or via Web conferencing). CIs indicated that a major advantage of an online, self-taught module would be the ability to complete the training independently, allowing for flexible scheduling and for CIs to re-familiarize themselves with the tool: "I like the fact that you can go in, get at what you want, if you want a refresher you can just refresh and go to whatever section you want" (FG-1).

Participants also discussed the benefits of working in a group to learn the new tool, such as being able to ask questions of an expert who was familiar with the tool. They acknowledged that planning such a session might pose some logistical difficulty in more remote settings or small clinics. However, participants did agree that having a group session to learn the new tool would be beneficial: "I do agree that having a group and everybody doing the rating together and then comparing your results does provide an effective learning experience as well" (FG-3).

Participants also agreed that regardless of the method, training should "take no more than an hour, maximum, to complete" (FG-1); one participant suggested 30 minutes.

Format of delivery

Participants indicated their preference for both paper and online formats in terms of completing the tool and reviewing it with students. Portability was identified as the major advantage of completing the evaluation on

paper; a paper assessment tool, participants suggested, allows more flexibility as to where and when CIs complete the evaluation and review it with the student

Unfortunately, we're very often taking them home and doing them on the bus, I did it at my doctor's appointment the other day. We don't have the time clinically to work on them. So the reality is that it would really be difficult. It would take more time out of the clinic per day if it was online—it is more flexible if we can complete it anywhere. (FG-2)

Another group indicated that the act of writing often seems like more work and is slower than filling out a form online: "... I think people are getting to the point where writing seems like a little bit more work. If you are just clicking on a dot and filling in comments it's way easier" (FG-3). They also noted that handwritten assessments may pose a problem if writing is illegible.

Participants agreed that the major advantages of an online assessment tool are completion time and ease of modification. However, participants also reported that some CIs are not comfortable with typing or navigating computer programs, meaning that an online assessment form may actually slow down the evaluation process. The potential problem of limited access to computers in the clinical setting was also identified: "I don't know ... but for us, computers are at premium ... if there were a few students at the hospitals at the same time, we were all fighting for two computers" (FG-2).

THE ESSENTIAL COMPETENCY PROFILE AS A FRAMEWORK

All focus-group participants agreed that the ECP is an ideal basis for developing the content of a new evaluative tool. They agreed that using the ECP as the framework seemed logical and would lead to more consistency in evaluation for the profession across the country.

DISCUSSION

Our study, which involved a limited number of CIs across Canada, identified several issues with the currently used PT-CPI, including lack of objectivity, lack of flexibility, and excessive completion and review time. These views further illuminate problems with the PT-CPI's applicability to the Canadian physical therapy environment and reinforce the evidence that all 14 Canadian schools offering physical therapy support the development of a new standardized tool.^{4,17} It is important to incorporate CIs' perspectives into the development of the new tool for several reasons, such as increasing their willingness to supervise students. In addition, while it is difficult to develop the "perfect tool," a well-designed tool enhances the likelihood that students will receive accurate, formative, and summative feedback to enhance their learning and clinical skills. A succinct assessment tool will help maximize these opportunities without compromising patient care.

Our finding that CIs prefer “less subjective” rating scales echoes the findings of other research that the rating scale must accurately depict students’ clinical performance and be easy to use.¹⁸ Participating CIs wanted a rating scale with anchors descriptive enough to facilitate objective measurement of students’ clinical performance. Our analysis also reinforces research findings suggesting that adequate and available training would increase compliance as well as decrease ambiguity with respect to the proper, effective, and efficient use of the assessment tool.¹⁹ In our study, CIs clearly indicated that having a choice of training methods would increase their likelihood of using and being comfortable with the tool. As in an earlier study in Australia,¹² CIs noted that while in-person sessions may be the most effective, they are not always possible or efficient, so an alternative self-study online module should also be available.

Participating CIs indicated that having the tool available in both online and paper formats would be advantageous. Advantages include the portability and flexibility of a paper tool and the ease of modification and storage of an online tool.²⁰ Disadvantages include the potential for poor legibility of a paper tool and the challenge of computer access for an online tool.

Limitations and future directions

Our study was the first of its kind in Canada to identify CIs’ preferences for a clinical assessment tool. However, it did have some limitations. The use of a sample of convenience may have introduced bias: it may be that only CIs who had strong opinions on the study topics chose to participate. There were also some inconsistencies in how the focus groups were conducted: some groups were remotely facilitated via Skype or teleconference, while others were conducted face to face. For all but one of the focus groups, the ACCE from the University of Toronto and the ACCE of the host site were present, which may have affected participants’ responses. The host ACCEs were not involved in the focus groups, however, and did not contribute to the conversation; their role was to help organize the logistics of preparing for and carrying out the focus groups. They are not included in the demographic data displayed in Table 1. A further limitation is that because none of our researchers are bilingual, all focus groups were conducted with English-speaking CIs only. Finally, all participants in the private-practice focus group worked for a single corporation. Despite the rich data we were able to capture in our study, a more diverse sample would help confirm the findings and/or identify additional issues not captured.

CONCLUSION

This study explored Canadian CIs’ perspectives on the type of rating scale, training, and delivery format they would prefer to use for a new clinical assessment tool. Participating CIs’ preferences include a rating scale that is objective and accurate, training sessions that are short

and flexible, and a tool that is available in both paper and online formats. CIs were also in favour of using the ECP as a basis for the new assessment tool. Members of the research team will use the results of this study to inform the development of a new tool, as part of the profession’s ongoing investigation into how to best assess students in clinical practice.

KEY MESSAGES

What is already known on this topic

There is general dissatisfaction among CIs with the current assessment tool, which is considered too time consuming to complete, impinging on time for patient care, and potentially dissuading therapists from taking on students.

What this study adds

This study revealed that a sample of Canadian CIs prefers an objective rating scale with clearly defined anchors, a multi-modal training program, and an assessment tool that can be completed and reviewed on paper or online. Implementing these features into a new tool will begin to remedy the main challenges posed by the PT-CPI currently in use in Canada and minimize the barriers to clinicians’ decision to supervise physical therapy students in the clinical setting. The findings of this study will inform the development of a new Canadian clinical assessment tool.

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