

March 26 2021

ATTN:

**CANADIAN ALLIANCE OF PHYSIOTHERAPY REGULATORS (CAPR),
BOARD OF DIRECTORS AND COMMITTEES OF THE BOARD,
CANADIAN PROVINCIAL AND TERRITORIAL PHYSIOTHERAPY REGULATORS
(GOVERNMENT OF YUKON CONSUMER SERVICES, COLLEGE OF PHYSICAL
THERAPISTS OF BRITISH COLUMBIA, PHYSIOTHERAPY ALBERTA COLLEGE &
ASSOCIATION, SASKATCHEWAN COLLEGE OF PHYSICAL THERAPISTS, COLLEGE
OF PHYSIOTHERAPISTS OF MANITOBA, COLLEGE OF PHYSIOTHERAPISTS OF
ONTARIO, ORDRE PROFESSIONNEL DE LA PHYSIOTHÉRAPIE DU QUÉBEC,
COLLEGE OF PHYSIOTHERAPISTS OF NEW BRUNSWICK/COLLÈGE DES
PHYSIOTHÉRAPEUTES DU NOUVEAU-BRUNSWICK, NOVA SCOTIA COLLEGE OF
PHYSIOTHERAPISTS, PRINCE EDWARD ISLAND COLLEGE OF PHYSIOTHERAPISTS,
NEWFOUNDLAND & LABRADOR COLLEGE OF PHYSIOTHERAPISTS)**

My name is Dr. Alexandra Harriss. Like many of my colleagues in British Columbia and nationwide, I currently hold a physiotherapy interim license. I graduated with a Masters of Physical Therapy as well as my PhD in 2020 from the University of Western Ontario. I have dedicated myself to scholarship, advocacy and leadership as a researcher, as well as a physiotherapist student and resident. As a researcher, I have published many peer reviewed articles, presented at conference proceedings and have been the recipient of various prestigious scholarship awards. Through my successful academic career, I have developed substantial critical appraisal skills, allowing me to evaluate the merit of arguments constructed over data presented.

Firstly, I would like to bring your attention to the PCE Quick Facts Page subheading: [Why do we need a Competency Exam?](#) CAPR explains that “A professional competency exam protects the public from less than competent practitioners. This in turn protects the reputation of the profession”. Although objective structured clinical examinations (OSCEs) are an acceptable method to evaluate clinical skills, they are not an effective measure to assess overall clinical competence. Importantly, this type of structured examination does not allow students to integrate their scientific knowledge or patient communication skills.¹ Furthermore, it is limited to a dichotomous scoring scale in which it cannot measure the progression in student competence overtime.² These limitations raise doubt regarding the utility of the PCE practical exam to evaluate broad clinical competency of physiotherapy residents.

Secondly, I would like to bring your attention to the subheading: [Is the PCE Reliable.](#) Educators need to create reliable and valid tests to enhance the accuracy of their assessments. Indeed, validity and reliability are two fundamental features in the evaluation process, particularly in high stakes assessments. CAPR reports using Cronbach’s alpha to determine the reliability of the written and practical examination components. Cronbach’s alpha is one measure of internal consistency, which needs to be determined before a test or examination is administered.³ Improper use of this alpha value can lead to misleading results. While there are different reports about the acceptable level of Cronbach’s alpha, acceptable values range from 0.7 to 0.95.³⁻⁵ The written examination is within this acceptable range, but the practical

examination is not ($\alpha=0.672$). Unfortunately, both values are reported as “very good”, which is misleading to the public, students and physiotherapists. This interpretation demonstrates a less rigorous statistical process. The inherent limitations of this statistical approach demonstrate CAPR is using a practical examination with substantially lower reliability,⁴ as compared to the written examination.

Furthermore, in the subheading [PCE: Is it Valid?](#) CAPR explicitly states validity cannot be quantitatively tested through statistical means. I argue this conclusion.⁶ For example, criterion or predictive validity could be measured by comparing student performance on the PCE with other assessments of their clinical competence. Construct validity is another option to determine if the PCE measures the intended construct of clinical competence. CAPR also clearly states, [In Step 5: Continuous Improvement](#): “CAPR conducts its own quality checks and quality improvement initiatives on a regular basis to ensure validity and reliability.” Note the direct conflict, in that CAPR previously stated validity cannot be quantitatively assessed. Given the inherent limitations and shortcomings in the statistical methodology, it is possible that the validity and reliability of the PCE examination has not been rigorously tested with the appropriate analyses during these quality checks. Currently, this data is not accessible by the public to make their own interpretations of CAPR’s statistical analyses.

More importantly, a few months ago, CAPR fundamentally changed the test administration for the PCE practical examination. These changes include a drastic reduction in the number of practical stations, the exam period transitioned from one-day to two-days and the entire platform transitioned from in-person to virtual. CAPR has fundamentally changed an already unreliable examination, introducing new biases and failing to demonstrate the integrity, reliability and validity of their new evaluation processes. With high stakes assessments, such as the PCE for current candidates, testing the reliability should be a mandatory evaluation.⁴

Furthermore, do the capacity and resources exist to develop a high stakes assessment where it is crucial to have sound statistical measures to support the exam? The reliability of the virtual PCE practical examination has not been quantified and it was modeled after an exam that has not been deemed substantially reliable ($\alpha=0.672$) by prior standards.³⁻⁵ In addition, Cronbach’s alpha can only be used to test reliability at one time-point. Accordingly, this cannot be generalized to the current, two-day virtual format. Lastly, what are the consequences for physiotherapist residents if the scoring rubrics are not robust enough? Should these rubrics as well as new examination platforms not be thoroughly validated and certified prior to testing?

Students should be responsible for demonstrating that they can be an effective, safe, competent and ethically responsible physiotherapist. In accordance with other trusted professionals in Canada, CAPR has outlined competency exams are also required for: Law, Pharmacy, Engineering, Accounting, Nursing, Dentistry and Optometry. Interestingly, the majority of these professions only require a written competency examination, which has been deemed an effective measure of entry-to-practice. For example, all Canadian educated nursing students are required to pass a written multiple choice exam, to which the blueprint can be [found here](#). Global leaders in physiotherapy practice have removed practical examinations for professional licensure. The exam serves no quantitative purpose nor provides additional insights into clinical competence that accredited universities have not already rigorously and routinely assessed.

As a scientist and physiotherapist resident it is important to critically appraise research. This is reinforced by the scholarship competency and expectation of CCPUP curricular guidelines, which supports students, residents and **colleagues** to realize and protest the fundamental flaws in this assessment protocol to date. We are an evidence-informed profession, it is time we raise our expectation of our governing body and regulators to reflect the sixth essential competency for entry to practice: Scholarship. Physiotherapist residents are ready to practice beside their physiotherapist **colleagues** as fully licensed professionals. To echo the Canadian Physiotherapy Association, enough is enough.

As a result, as a physiotherapist resident and **colleague**, I am calling for:

1. CAPR to publicly explain and statistically support what they are gaining from the PCE practical examination component that the accredited Canadian universities are not already assessing such as, core competencies and entry-to-practice milestones.
2. CAPR to re-analyze the reliability and validity of the practical examination in a peer reviewed format, through sophisticated statistical methods that accurately quantify the in-person and virtually formatted PCE examinations.
3. Support, in its entirety, the “Call To Action” as outlined by the [Canadian Physiotherapy Association](#).

Sincerely,



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Physiotherapist (Resident)

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