

# The Councils on Chiropractic Education International Mapping Project: Comparison of Member Organizations' Educational Standards to the Councils on Chiropractic Education International Framework Document



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## ABSTRACT

**Objective:** The purpose of this project was to investigate how well each member agency's standards complied with the Councils on Chiropractic Education International (CCEI) framework standards.

**Methods:** Each of the CCEI member agencies were provided with a mapping template that was approved by all representatives. A representative from each agency independently mapped their agency's standards to the CCEI framework standards using the template document. Discrepancies were explored and discussed among members. Member agencies discussed with their constituents the omissions and areas that did not comply or adequately match the CCEI document. Changes or additions to member agency standards were made, and updated versions of the mapping were agreed by all CCEI representatives.

**Results:** There were 12 sections containing 30 standards within the CCEI framework standards. The Council of Chiropractic Education Australasia and Council on Chiropractic Education Canada reported relevant standards for all 30 CCEI standards. The European Council on Chiropractic Education had 29 of 30 relevant standards, with no direct standard for service. The products that were created were an executive summary of our findings and a detailed map showing similarities for each of the member agencies.

**Conclusion:** This mapping project demonstrated the similarities of the CCEI member agency standards and that these standards focused on outcomes-based chiropractic education. This quality improvement project resulted in useful dialogue among the member agencies during this project, which clarified areas of difference. (*J Chiropr Humanit* 2022;29:1-6)

**Key Indexing Terms:** *Chiropractic; Quality Improvement; Curriculum; Education; Health Occupations; Standards; Accreditation*

## INTRODUCTION

The Councils on Chiropractic Education International (CCEI) was established in 2001 by the world's regional chiropractic accrediting agencies existing at that time—the Council of Chiropractic Education Australasia (CCEA), Council on

Chiropractic Education Canada (CCEC), Council on Chiropractic Education United States (CCEUS), and the European Council on Chiropractic Education (ECCE). These member agencies combined their efforts to collaborate, assure excellence, and guide consistent quality improvement in chiropractic education through accreditation. The CCEI established the

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International Framework for Chiropractic Education Accreditation (framework), which provided a reference point for assessing the eligibility of a Council on Chiropractic Education to become a member of CCEI.<sup>1,2</sup> Completed in 2016, the framework consists of the following 3 parts: (1) program standards, (2) competencies, and (3) policies and procedures for accreditation.<sup>1,2</sup> The purposes of creating these documents were as follows: (1) facilitate compliance of member agencies in meeting the agreed CCEI framework criteria, (2) use them as models for newly established accrediting bodies to develop their accreditation documents, and (3) facilitate international mobility of graduates and faculty.

The CCEI recognizes the need for internationally accepted standards for chiropractic education and education systems as part of diverse and innovative cultures of geographic jurisdictions. The accreditation process should respect the autonomy of the educational program, national legislation, and regulations. The CCEI acknowledges that there is no single best way to educate a competent chiropractor. Specific policies, procedures, and educational requirements may vary by region as they reflect local academic traditions or legislation in a jurisdiction.<sup>3,4</sup> These differences are in accordance with international accreditation processes for similar health care professions, such as the doctor of physical therapy programs.<sup>5</sup>

Within the CCEI's program standards, there are 12 sections and 30 standards, which are based on the outcomes-based education model.<sup>6-11</sup> The CCEI requires its member agencies to monitor exit outcomes in the program they accredit. Therefore, the CCEA, the CCEC, and the ECCE require chiropractic programs to identify the exit outcomes, make them explicit, and communicate them to students, faculty, the profession, and other stakeholders.<sup>7,8</sup> As a result, both the learning outcomes or competencies (output) and the educational processes (input) are addressed in the CCEI program standards. A global set of core standards relating to outcomes (competencies) of knowledge, attitudes, and skills is not the same as a set of specific standards of content of the curriculum. The CCEI program standards, therefore, do not prescribe detailed curriculum content. Instead, each program's curriculum must provide the means to achieve the educational outcomes as well as the systems for assessing whether students have achieved the required outcomes of knowledge, skills, and attitudes. Programs must also describe processes for evaluating and monitoring the effectiveness of the curriculum and educational environment in achieving those outcomes.

As a condition of membership in CCEI, all member agencies must have program standards, competencies, and procedures that are at least equivalent to those contained within the CCEI framework. The CCEI program standards provide minimum requirements for the education and training of chiropractors and are the minimum requirements to be met by the programs for the education and training of chiropractors accredited by a CCEI member agency.

To date, there has not been an evaluation of how outcomes-based education is reflected in CCEI member agency standards. Therefore, the purpose of this project was to investigate and report the outcomes of how well each member agency's standards complied with the CCEI framework program standards.

## METHODS

The CCEI secretariat created a mapping template that was approved by all CCEI representatives. The template outlined the standards within the CCEI framework. This template supported the compilation and comparison of how member agency standards align. CCEI established internal operating procedures, including representatives from all member agencies, to review the documents for completion and to satisfy that the documents on standards alignment were complete and that evidence was clearly described and provided sufficient information to support that they adequately align with the minimum requirements (Fig 1).

We used a qualitative process for documentation and mapping of standards as part of ongoing quality assurance by members. Each of the current CCEI member agencies (CCEA, CCEC, and ECCE) mapped their specific standards. The CCEUS previously withdrew its membership from CCEI and therefore did not participate in this project. It was the responsibility of each member agency to establish their specific quality processes and protocols for the integrity of the mapping and alignment with the CCEI program standards. After the mapping was completed, it was approved by the relevant regional council members. The processes used by each member agency to complete this mapping are described below.

### The CCEC Mapping Procedure

The CCEC comprises a council and 2 accreditation standards and policy committees. The Accreditation Standards and Policy Committee (ASPC) focuses on the Doctors of Chiropractic Programmes, and the Specialties Accreditation Standards and Policy Committee is focused on the post-professional chiropractic specialties programs. Mapping of the CCEC standards with the CCEI program standards involved the ASPC and the CCEC members. An ASPC mapping protocol was developed to ensure quality, and a consistent process was used to support those who participated in the mapping, how each standard was reviewed, and how evidence and documents satisfied how the CCEC standard aligned with the CCEI program standards. A specific team was established to review the Canadian standards and their alignment with the CCEI program standards. This team included CCEC members, ASPC members, representatives with expertise in accreditation standards, and representatives from each Canadian Doctor of Chiropractic program. The template provided by the CCEI and the CCEC standards

**Step 1:** Each member agency submits mapping document to CCEI secretariat.

**Step 2:** CCEI secretariat develops a compiled mapping document, which includes the location and wording of each member agency's standards mapped to the matching standard within the CCEI Framework

**Step 3:** CCEI secretariat reviews the compiled document to check for quality, missing information, and detail. Requests individual member agency to provide further information and resubmit.

**Step 4:** The compiled document including all 3-member agency mapping is distributed to the CCEI representatives selected from each member agency.

**Step 5:** CCEI member representatives meet to review each of the CCEI standards. Standards of member agencies that do not adequately map or where discrepancies are noted these are explored and discussed by the representatives.

**Step 6:** If needed, CCEI member representatives take the results from Step 5 back to their constituents.

**Step 7:** If needed, changes and additions to individual member agency standards are resubmitted and updated versions are presented to the CCEI member representatives for review and discussion. When agreement that the standards are adequately aligned, a shortened compiled document is prepared by the CCEI secretariat for display on the CCEI website.

**Fig 1.** CCEI review and compilation of member agencies matching. CCEI, Councils on Chiropractic Education International.

were discussed standard by standard using the ASPC mapping protocol. A qualitative process was used to maintain the rigor and audit trail of decision-making. This involved a consistent set of questions, a roundtable discussion on the evidence, identification of support for how the standard mapped with the CCEI framework, as well as documentation of each decision in determining how standards were aligned. A request for clarity in documentation was addressed by a member of the ASPC with expertise in education and standards mapping who completed and resubmitted the final document for review by CCEI member representatives.

### The CCEA Mapping Process

The CCEA mapping process was undertaken by 2 staff members with considerable experience in mapping intra- and cross-professional standards for health professions. All major Australian health professions are governed by common legislation, with a requirement for consistency in approaches to accreditation across professions, in part to reduce burden on higher education providers and minimize overlap with other higher education standards. As such,

previous mapping work of CCEA Standards compared to other professions had been done to ensure its standards met these criteria. The final version of the mapping of CCEA's standards against the CCEI framework was approved by the CCEA Executive Board prior to submitting it to CCEI.

### The ECCE Mapping Procedure

The Quality Assurance Consultant for the ECCE was assigned to perform the mapping of the ECCE standards with the CCEI framework. She had experience in working together with other European accrediting bodies in joint mapping projects, comparing the ECCE standards with other agencies' standards. The previous joint mapping projects compared the ECCE standards with the European Standards and Guidelines for higher education, the Swiss Agency of Accreditation and Quality Assurance standards for medical and chiropractic education, as well as the United Kingdom's General Chiropractic Council standards. Once the draft document mapping the CCEI framework with the ECCE standards was completed, it was presented to the ECCE executive members as well as the General Council members for discussion and revision. The final document was used in this study.

Once the individual mapping was completed and approved by each Council on Chiropractic Education, it was submitted to the CCEI secretariat. The secretariat compiled a mapping document, which included the location and wording of each member agency's standards mapped to the matching standard within the CCEI framework. The CCEI secretariat reviewed the compiled document for quality and communicated with member agencies if anything appeared to be missing or lacking detail. The compiled document was then distributed to the CCEI representatives, composed of 2 individuals selected from each member agency. These representatives reviewed each of the CCEI framework standards, discussed the individual member agency's mapping findings, and identified standards that did not comply or adequately match across the 3 member agencies. Reasons for any discrepancies or areas that did not comply or adequately match were explored and discussed among the members. Member agencies discussed with their constituents the omissions or areas that did not comply well with the CCEI document. Changes or additions to individual member agency standards were made, and the updated versions were presented to the CCEI representatives.

After the process was completed, a simplified and condensed mapping document was developed for display on the CCEI website. The executive summary document shows whether or not each member agency had a standard that matched each CCEI framework standard.<sup>2</sup> The executive summary, while useful to exhibit that each member agency adequately met each standard, is limited in details. The current CCEI representatives prepared a manuscript for publication of the full mapping document with all details, which would be useful for the profession and students internationally. This process began in November 2017 and ended in December

2020. The CCEI secretariat compiled information, which presents the updated complete, agreed, and final mapping document, including the 3 CCEI member agencies, as of February 2022. All CCEI member organizations consented to publish their information in this paper.

## RESULTS

There are 30 different standards within the 12 sections of the CCEI standards framework. The CCEA and the CCEC reported standards for all 30 sections. The ECCE reported standards for 29, with no direct standard for service. The complete document is shown in the supplementary file.

## DISCUSSION

This mapping project compared the CCEI member agency standards to the CCEI framework standards and was fruitful in several areas. First, it documented how well each of the member agency standards complied with each of the CCEI framework standards. Second, it provided an opportunity for each agency to individually consider and reflect upon their own standards and make modifications, changes, or additions if it was deemed appropriate. Third, this process facilitated dialogue and discussion between the member agencies, particularly if an agency initially had no similar standard in their documents. Fourth, the agreed framework mapping document was created, which can be used as a template for those currently without or developing their own standards for chiropractic education.

Our hope is that the CCEI mapping document may help to facilitate international mobility of chiropractors and faculty. This document clearly shows that, although not identical, there are strong similarities among the chiropractic programs that the agencies evaluate and accredit. Differences in wording within the various standards are mainly reflective of the cultural and jurisdictional variation rather than content differences.

This mapping exercise documents that the CCEI member agencies focus on outcomes-based chiropractic education.<sup>6-13</sup> This model of education is used by health care professionals.<sup>10-13</sup> The outcomes-based model focuses on patient care and safety by using educational and assessment approaches that facilitate student competency in demonstrating their ability to diagnose and apply the appropriate evidence-based patient care.<sup>10-13</sup> Components of an outcomes-based health care education program focus on improving health, the health care experience, and the value of care.<sup>13</sup>

This project identified similarities among the CCEI member agencies' standards even though the pre-chiropractic educational requirements differed widely internationally. These differences in prerequisites may hamper the mobility of graduates to work in other countries if regulatory bodies do not understand the various educational

systems internationally, including in the transition from secondary to tertiary education. The CCEI has been contacted over the years by graduates who had been denied the opportunity to work in some jurisdictions because their prerequisites were different from the target country. For example, students entering chiropractic programs in Canada and the United States (US) often have a 4-year bachelor's degree, which often includes requirements in basic science courses. However, chiropractic programs in other countries may have different entry requirements based on their educational systems. These requirements often parallel prerequisite requirements for medical education in those countries and may vary from those in North America and from each other.<sup>14-17</sup> In the United Kingdom, students take A-level courses after their basic (ie, secondary) education prior to entering chiropractic programs, which is similar to medical students. A-levels for medical school usually consist of 2 years of study in 3 different subjects.<sup>17</sup> To study medicine, the subjects of biology and chemistry are required, and physics is recommended, depending upon the program.<sup>17</sup> Alternatively, in Switzerland, students enter the chiropractic medicine program directly from a high school program tailored for the academically gifted and after obtaining the Matura qualification. They must also achieve high enough scores on the national medical entry examination, which is at least at the same level as the medical students.<sup>3</sup> The entry process for chiropractic students in Denmark is similar to the Swiss model.<sup>3,18</sup>

Understanding these differences in the pre-chiropractic educational systems and subsequent international entry requirements is important if the chiropractic profession wishes to be focused on outcomes-based chiropractic education. Where is the evidence that 1 prerequisite system is superior to another?<sup>17</sup> It could be suggested that determining eligibility to practice within various countries would be fairer to focus on the chiropractic education itself along with the other citizenship or residency requirements and performance on qualifying examinations.<sup>19</sup> Historically, Swiss students without the typical US and Canadian university prerequisites for chiropractic education were allowed to study and graduate from Swiss government-approved chiropractic programs in the US and Canada.<sup>20</sup> This is still possible, but it has become more challenging for foreign graduates since the start of the University of Zurich Chiropractic Medicine Program.<sup>3</sup> We suggest that more focus should be on chiropractic programs with outcomes-based education, not the various prerequisite models. Our mapping project demonstrates how well each CCEI member agency addresses all areas of the CCEI Framework Standards and supports this concept.

We recognize that educational standards are not static but evolve over time, particularly in a rapidly changing educational environment. The last decade has seen more change in educational delivery than the century prior. Adding to this are the challenges and rapid developments made within chiropractic education due to the COVID-19 pandemic in the past

2 years. Thus, the CCEI recognizes that our standards framework will need to be reviewed and modified over time to meet the needs of the changing educational environments, including remaining abreast of new developments in evidence-based practice and patient-centered care.<sup>21-26</sup>

### Limitations and Future Studies

The CCEI recognizes that there may have been some inherent biases as each member agency mapped its own standards to the CCEI framework document. This possibility was identified and briefly discussed among participants prior to initiating the project. Another limitation may be that this project was started toward the end of 2017, before the COVID-19 pandemic started, but was completed in 2020 during this pandemic. Many changes were required to the various accredited chiropractic programs to accommodate remote and hybrid learning during the COVID-19 shutdowns. The various Councils on Chiropractic Education are now in the process of studying these changes in terms of their effects on student teaching and learning, as well as innovations that may continue after the pandemic. A follow-up study comparing these changes among the CCEI member agencies would be useful.

### CONCLUSIONS

This CCEI mapping project showed the similarities of the member agency standards and that these standards focus on outcomes-based chiropractic education. This study facilitated useful dialogue between the member agencies during the initial phases of this project, which helped to clarify areas of difference and to update, add, or modify member agency standards. It is hoped that this mapping project will help to facilitate, but certainly cannot guarantee, international mobility of graduates, faculty, and researchers.

### SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at [doi:10.1016/j.echu.2022.05.001](https://doi.org/10.1016/j.echu.2022.05.001).

### FUNDING SOURCES AND CONFLICTS OF INTEREST

No funding sources or conflicts of interest were reported for this study.

### CONTRIBUTORSHIP INFORMATION

Concept development (provided idea for the research): J.M., K.R., M.S., S.P., C.P., M.W., G.B.  
Design (planned the methods to generate the results): J.M., K.R., C.P., M.S., S.P., M.W., G.B.

Supervision (provided oversight, responsible for organization and implementation, writing of the manuscript): C.P., K.R., L.S.

Data collection/processing (responsible for experiments, patient management, organization, or reporting data): C.P., M.W., L.E., D.P.

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Critical review (revised manuscript for intellectual content, this does not relate to spelling and grammar checking): K.R., L.S., M.S., S.P., D.P., M.W., L.E., M.W.

### Practical Applications

- This mapping project may help new chiropractic accrediting bodies internationally develop their standards.
- The study could also facilitate international portability of chiropractic graduates, faculty, and researchers.
- This article points out the significant differences in the prerequisite chiropractic educational requirements internationally while emphasizing the very strong similarities within the chiropractic educations themselves.

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