

Informing a research agenda for the Canadian chiropractic profession

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Our research group recently published a Delphi study that identified Canadian chiropractic profession research priority areas. At the same time, the Canadian Chiropractic Research Foundation (CCRF) was developing their own research priority areas. In this commentary, we discuss the results of the Delphi study, compare and contrast these results to the research priorities of the CCRF, and report new data from a survey about where members of the chiropractic profession think that available research funding should be spent. Ongoing dialogue is needed with all Canadian chiropractic stakeholders to turn these research priorities into action.

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KEY WORDS: chiropractic, research, agenda

Notre groupe de recherche a publié les résultats d'une étude Delphi visant à connaître les priorités de recherche dans le domaine canadien de la chiropratique. Parallèlement, la Fondation canadienne pour la recherche pour la recherche en chiropratique (CCRF) a établi ses propres priorités. Dans les présents commentaires, nous examinerons les résultats de l'étude Delphi, nous les comparerons aux priorités de recherche établis par la CCRF et nous présenterons les résultats d'un sondage mené auprès de membres de la profession pour connaître leurs opinions sur la façon dont les fonds de recherche devraient servir. Un dialogue continu s'impose entre tous les intervenants du domaine de la chiropratique au Canada pour que ces priorités de recherche se traduisent en mesures concrètes.

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MOTS CLÉS : chiropratique, recherche, programme

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Introduction

The Canadian chiropractic profession has demonstrated a strong commitment to supporting research activity.¹ The Canadian chiropractic profession has provided research funds in numerous ways, for example, supporting research chairs, and supporting specific research projects. This has resulted in a strong research infrastructure within the Canadian chiropractic profession.² However, funds available to undertake research are limited, and conducting high quality research is expensive. So, any research funding body needs to be selective in what research they fund.

Allocation of research funding in Canada by the chiropractic profession is in a transitional period, particularly as the Canadian Chiropractic Research Foundation (CCRF) moves from funding research chairs, to funding research priorities through a competitive grant process. In doing so, the CCRF acknowledged that its business model had to change to ensure long-term sustainability. The goal of the CCRF over the last decade was to fund a research chair in every Canadian province. Eighteen chiropractic researchers have been employed at different universities in every province across Canada, except Prince Edward Island, who are either currently, or were initially, funded by the CCRF. This program concluded with the final research chair position appointed at the University of New Brunswick in July 2017.

It is time for a clear research direction to be developed for the chiropractic profession in Canada so that limited research funds can be allocated to priority areas identified by the major stakeholders in the profession. Our research team recently conducted a Delphi study to identify key research priority areas for the Canadian chiropractic profession. At the same time, the CCRF was engaged with national and provincial chiropractic leaders across Canada, including CCRF research chairs, to develop its philanthropic investment prospectus (Case for Support) in support of the transformation of the CCRF from a profession-based charitable foundation to a more outward focused fundraising foundation. Despite the significant overlap in priorities identified between these two initiatives, some differences have emerged that highlight the need for further dialogue to reach consensus on these priorities.

Delphi study methods and results

Our research team recently published a Delphi study that

identified research priority areas for the Canadian chiropractic profession, based on the views of the major stakeholder organisations in the profession. Ethics approval to conduct the study was granted by the Queen's University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board (REH-627-15). The full methods of the study are published elsewhere.³ A Delphi panel was formed made up of individuals representing the major stakeholder organisations of the Canadian chiropractic profession (e.g. Canadian Chiropractic Association; provincial associations; chiropractic educational institutions; and researchers). Participants completed three online Delphi survey rounds. In Round 1, participants suggested research areas. In Round 2, participants judged the importance of the research areas identified in Round 1. In Round 3, results from Round 2 were presented to the participants who then re-evaluated their importance in light of the rest of the participants' ratings. Finally, participants completed an activity to determine the ranked order of the list of important research areas.

Fifty-seven participants, of 85 people invited, completed Round 1, with a response rate of 67%; 56 participants completed Round 2, 55 completed Round 3, and 53 completed the final ranking activity. The Delphi study participants represented all the major stakeholder groups in the Canadian chiropractic profession. Full demographic details of the Delphi panel are available in the published study.³

Areas of research considered important by Delphi participants, listed by ranked order, were:

- 1) Integration of chiropractic care into multi-disciplinary settings (Health services)
- 2) Costs and cost-effectiveness of chiropractic care (Health services)
- 3) Effect of chiropractic care on reducing medical services (Health services)
- 4) Effects of chiropractic care (Clinical)
- 5) Safety/side effects of chiropractic care (Clinical)
- 6) General mechanisms and effects of spinal manipulative therapy (Basic science)
- 7) Neurophysiological mechanisms and effects of spinal manipulative therapy (Basic science)
- 8) Chiropractic care for older adults (Clinical)

CCRF research priorities

The Canadian Chiropractic Association (CCA), as the national professional association, is invested in building a culture of evidence-informed practice and research through its strategic and financial support of initiatives, all designed to strengthen and enhance members' evidence informed practice. These initiatives include, but are not limited to, the CCRF, the Canadian Chiropractic Guideline Initiative (CCGI), and the Journal of the Canadian Chiropractic Association (JCCA). The sustainability of the CCRF and creation of an environment that will continue to enhance the professions' research culture is a priority of the CCA. Recently the CCRF undertook a priority setting exercise, called the "Case for Support", in order to determine research priorities that could direct funding in areas with the greatest impact on Canadian patient care.

The CCRF was completing its Case for Support at the same time that our research group was conducting the final stages of the Delphi study. This CCRF process was conducted as part of a review of the CCRF's purpose and the development of a sustainability plan. The information was gathered by the CCRF through telephone interviews with key individuals, who were asked two questions:

- 1) What research areas do you think are most critical right now?
- 2) What impact would you like to see with chiropractic research?

The CCA and provincial Associations regularly host national meetings to collaborate and discuss strategic priorities that have national significance. At the Fall 2016 CCA Presidents' Meeting of national and provincial presidents, the CCA facilitated a process for determining national research priorities, which were then shared with the CCRF for adoption to guide allocation of future funding. The main people involved in this priority-setting process were presidents of the national and provincial chiropractic associations, and selected researchers. This process was assisted during a workshop at the Presidents' Meeting where information gathered by the CCRF for its Case for Support, as well as information available from the Delphi Study in progress at that time, was presented for consideration. The final list of CCRF research priorities, developed at the President's meeting, is shown in Box 1.

Box 1.

National research priorities of the Canadian Chiropractic Research Foundation.⁴

Basic Science:

What are the physiologic mechanisms contributing to the clinical manifestation and therapeutic responses in the chiropractic management of chronic and acute musculoskeletal pain?

Clinical Science:

What is the effect of chiropractic management on clinical outcomes associated with acute and chronic musculoskeletal pain and dysfunction?

Health Systems:

Does the inclusion of chiropractic care into an interdisciplinary healthcare setting to address musculoskeletal conditions improve healthcare resource management and patient outcomes?

Population Health:

What impact does chiropractic care have on the musculoskeletal health outcomes of specific sub-groups of the population, such as the elderly population and children/adolescents?

Comparing research priorities from the Delphi study to the CCRF research priorities

There are similarities and differences between the list of important research areas identified in our Delphi study, and those of the CCRF. Both lists identify health systems research to investigate the integration of chiropractic care into multidisciplinary settings. Both lists highlight the importance of basic science research to understand mechanisms of effect of chiropractic management, and of spinal manipulative therapy in particular. Both lists identify the importance of clinical research to examine the effects of chiropractic care in general, and on specific musculoskeletal pain and dysfunction. Finally, both lists highlight the importance of conducting research to determine the role of chiropractic care for older adults.

Differences between the priorities identified by the two initiatives include that the CCRF list specifically identifies children/adolescents as a population in which research should be undertaken, but the Delphi panel did not specifically highlight this population as an important one. Considering that the CCRF priorities were developed mostly

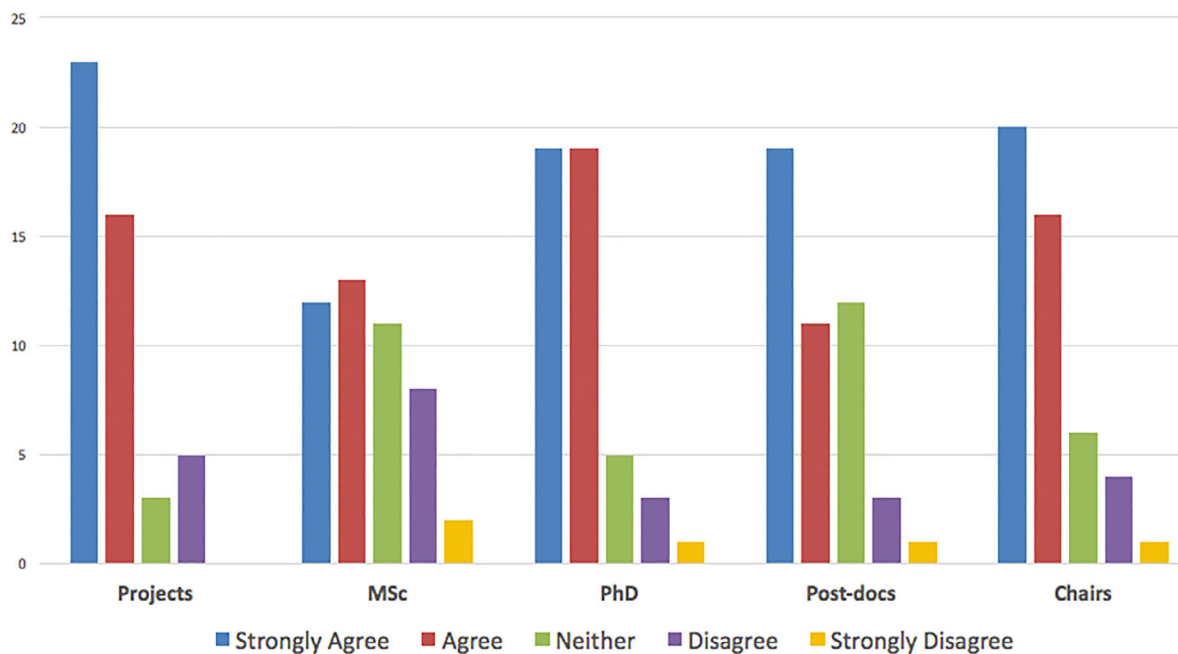


Figure 1.

Percentage of participants who agreed that the Canadian chiropractic profession should allocate research funds to each of these areas.

by association presidents, a possible consideration for this difference is the perceived increase of care provided by practitioners to children/adolescents, and that the political organisations face challenges on the credibility of care provided to this population. The Delphi panel also highlighted two health service research areas as important that the CCRF list did not explicitly list: Costs and cost-effectiveness of chiropractic care, and the effect of chiropractic care on reducing medical services. These differences would most likely be due to the different methods and different population that were involved in formulating each priority list.

New survey results: How to allocate research funds

As part of Round 3 of the Delphi survey, our research team asked participants to specify their level of agreement about where the Canadian chiropractic profession should allocate research funds. These data were not reported in the Delphi publication. We asked participants whether they thought the chiropractic profession should provide funding for the following areas, with the response

options: strongly agree; agree; neither agree nor disagree; disagree; strongly disagree:

1. Individual research projects
2. MSc graduate student stipends
3. PhD graduate student stipends
4. Post-doctoral trainees
5. Research chairs/professorships

In a separate question, we asked participants to rank in order of importance where they thought the Canadian chiropractic profession should direct its research funding, listing the same five items as above.

Figure 1 shows what areas participants thought that the chiropractic profession should provide funding for. More than half of all participants strongly agreed, or agreed, that the profession should provide funding for all the areas listed. Approximately 80% of participants strongly agreed, or agreed, that the Canadian chiropractic profession should provide funding for individual research projects (83%), PhD graduate student stipends (81%),

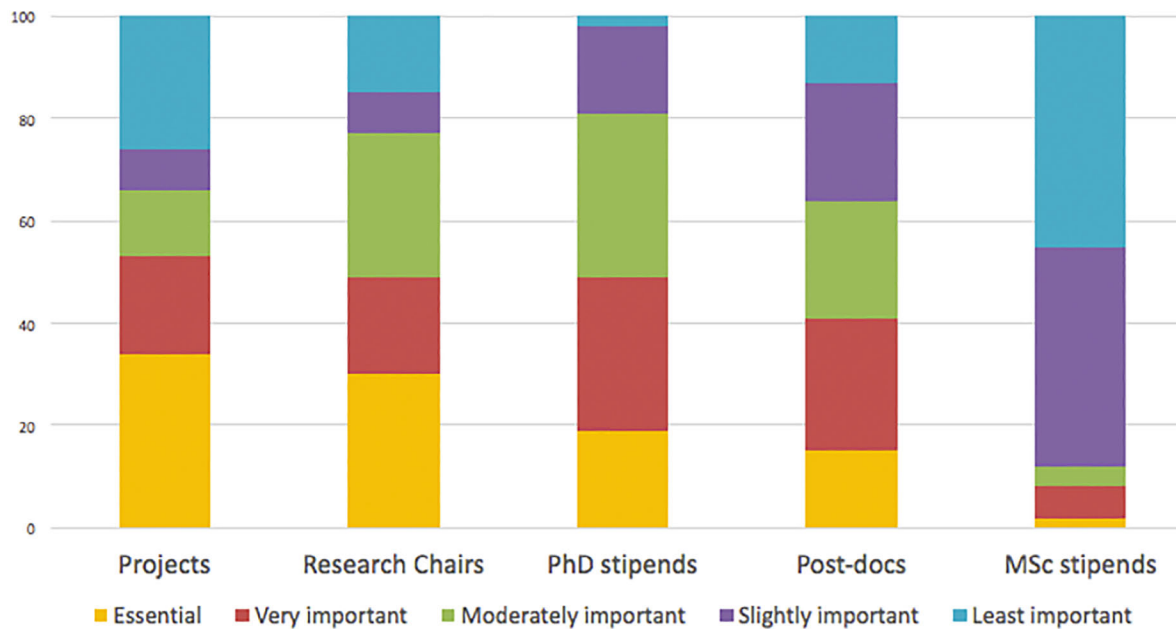


Figure 2. Participants' responses when asked to rank the importance of allocation of research funds for the Canadian chiropractic profession.

or research chairs/professorships (77%). Whereas approximately two thirds (65%), and just over half (54%), strongly agreed, or agreed, that the profession should provide support for post-doctoral trainees, and Master of Science graduate student stipends, respectively.

Figure 2 shows the results when participants were asked to rank order the importance of funding these areas. Research projects were ranked the most important, with 34% of participants ranking these as essential, followed by research chairs, with 30% ranking these as essential. However, it was difficult to clearly determine a difference between these areas; when we combined participant responses of “essential” and “very important”, the ranking of research projects, research chairs and PhD student stipends was 53%, 49% and 49%, respectively.

Conclusion

The Canadian chiropractic profession continues to demonstrate a strong commitment to supporting research activity. The Delphi survey undertaken by our research group identified research priority areas for the Canadian

chiropractic profession. The top three priority areas were all in the theme of health systems research. The CCRF process similarly identified health systems research as important to investigate the integration of chiropractic care into multidisciplinary settings. Both processes identified the importance of examining the effects of chiropractic care for musculoskeletal pain, and of conducting research to determine the role of chiropractic care for older adults. Differences between the results of the two processes included that the CCRF process specifically identified children/adolescents as a population in which research should be undertaken, and the Delphi panel highlighted two health service research areas as important, that the CCRF process did not explicitly list: Costs and cost-effectiveness of chiropractic care, and the effect of chiropractic care on reducing medical services.

When deciding where to allocate limited research funds, we found that representatives of stakeholder organisations of the Canadian chiropractic profession thought that funding should be allocated to research projects and research personnel. When asked to specify the

level of importance of each, research projects, research chairs and PhD stipends were rated highest. The similar research priorities generated by the two different processes confirms the professions' support of research activities related to health services research and research evaluating the effect of chiropractic care for different populations. Canadian chiropractic stakeholders now need to turn these research priorities into action.

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