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ORIGINAL ARTICLE

A survey of interprofessional education in chiropractic continuing education in the United States

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Objective: The purpose of this study is to describe the state of chiropractic continuing education vis-à-vis interprofessional education (IPE) with medical doctors (MD) in a survey of a sample of US doctors of chiropractic (DC) and through a review of policies.
Methods: Forty-five chiropractors with experience in interprofessional settings completed an electronic survey of their experiences and perceptions regarding DC-MD IPE in chiropractic continuing education (CE). The licensing bodies of the 50 US states and the District of Columbia were queried to assess the applicability of continuing medical education (CME) to chiropractic relicensure.
Results: The majority (89.1%) of survey respondents who attend CE-only events reported that they rarely to never experienced MD-IPE at these activities. Survey respondents commonly attended CME-only events, and 84.5% stated that they commonly to very commonly experienced MD-IPE at these activities. More than half (26 of 51) of the licensing bodies did not provide sufficient information to determine if CME was applicable to DC relicensure. Thirteen jurisdictions (25.5%) do not, and 12 jurisdictions (23.5%) do accept CME credits for chiropractic relicensure.
Conclusion: The majority of integrated practice DCs we surveyed reported little to no IPE occurring at CE-only events, yet significant IPE occurring at CME events. However, we found only 23.5% of chiropractic licensing bodies allow CME credit to apply to chiropractic relicensure. These factors may hinder DC-MD IPE in continuing education.

Key Indexing Terms: Chiropractic; Medicine; Interprofessional Education; Continuing Education

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INTRODUCTION

Over the past 2 decades, chiropractors have increasingly been incorporated into traditional medical care systems in the United States. In the United States, chiropractic services have been introduced into Department of Veterans Affairs (VA),[1,2] Department of Defense (DoD),[2,3] and private healthcare systems.[4–6]

As has been described in previous research, adding a new provider type to a healthcare system is challenging and can result in variations in practice patterns, integration, and quality of care because of the unfamiliarity between the existing and new provider groups.[7–9] It has been shown that medical doctors (MDs) in North America have a wide range of attitudes toward doctors of chiropractic (DCs), which can be a barrier to integrating chiropractic services into US medical systems.[10]

There is some evidence that interprofessional collaboration (IPC) can improve healthcare processes and outcomes.[11] IPC is defined as "the process where different professional groups work together to positively impact health care."[12] A related concept, interprofessional education (IPE), is defined as "those occasions when members (or students) of 2 or more professions learn with, from and about one another to improve collaboration in the quality of care."[12] IPE has been shown to be the most common antecedent to IPC.[13] Moreover, IPE has been linked to improved teamwork and enhanced quality of care.[12]

Thus, the extent to which chiropractic educational opportunities exist in conjunction with medical education may be an important influence on IPC and chiropractic integration within medical systems and may ultimately influence quality of care. It is known that chiropractic undergraduate education in the United States has historically been disconnected from medical and allied health institutions;[14] however, the interprofessional characteristics of chiropractic continuing education (CE)—the periodic ongoing education required by US licensing jurisdictions as a condition for license renewal—have not been described. The purpose of this study is to document and describe two facets of the current state of chiropractic continuing education vis-à-vis IPE with medical physicians

in the United States. We sought to describe the applicability of continuing medical education (CME) to chiropractic relicensure and the likelihood of DC-MD IPE occurring at CE events.

METHODS

This study is a descriptive investigation of IPE characteristics using a hybrid combination of a provider survey and policy analysis. This research study was approved by the Institutional Review Board of the VA Puget Sound Healthcare System.

For the purpose of this study, we defined IPE as "when two or more professions learn with, from and about each other to improve collaboration and the quality of care."[12] Furthermore, we created three characteristic questions assessing key antecedents to IPE in CE:

1. At chiropractic CE activities (those offering CE credit only), is it common for DCs to learn alongside and interact with MDs?
2. Is it common for chiropractors to attend continuing medical education (CME) activities (those offering CME with or without CE)?
3. Do chiropractic state licensing boards allow CME credits to apply to chiropractic relicensure requirements?

Questions 1 and 2 were assessed using subject matter expert survey. Question 3 was assessed using document and policy analysis.

Survey

We used purposive sampling to survey 45 chiropractors with expertise in interprofessional clinical care. We identified this population as a reasonable representation of DCs who were more likely to attend CME events than DCs in other practice settings. Since the total number of US DCs working in interprofessional care settings is unknown, survey sample size to reflect given margins of error and confidence intervals could not be calculated; thus, the sample size of 45 was selected a priori as a reasonable number. Subjects were identified through personal contacts of the investigators.

We invited 60 potential subjects in an effort to obtain our target of 45 respondents. This included 20 subjects with ongoing interprofessional experience in each of the following categories: Veterans Health Administration, Department of Defense, or private healthcare systems.

Participants were asked to complete an anonymous electronic survey assessing their perceptions of IPC features in CE.

The survey was modeled after previous surveys assessing characteristics of chiropractors in integrated settings[1] and experiences and educational needs of physicians.[15,16] The investigators used an iterative process to develop survey questions and pilot tested the instrument among a group of peer DCs who were not part of the subsequent survey population. Following pilot testing, minor revisions were made to enhance clarity, and it was determined that the instrument was understandable and could be completed in 10–15 minutes. The survey was conducted via an online service (Survey Monkey, Palo Alto, CA). The automated software sent an e-mail to potential subjects inviting participation, and sent reminders at 2 and 4 weeks.

Policy Analysis

We queried the chiropractic licensing boards from the 50 states and the District of Columbia to obtain current policy on the applicability of CME credit to chiropractic relicensure. We attempted to obtain policy or regulatory documents through the public websites of each board or by contacting a given board. When information could not be obtained directly from the state licensing board via e-mail, fax, or phone call, we attempted to obtain information from policy documents via the Internet.

All data were entered into an Excel spreadsheet (Microsoft Corp, Redmond, WA) for tabulation and analysis with descriptive statistics.

RESULTS

Survey

We received 46 responses (76.6% response rate) to our survey. Sixteen reported they were from private sector facilities, 12 from DoD, and 16 from VA, and there were 2 missing responses. Respondent demographics are presented in Table 1.

Among all respondents, 89.1% reported attending CE-only educational activities 1 or more times per year, and 76.1% stated that they rarely to never experienced MD-IPE at these activities. The majority (64.4%) of respondents reported attending CME-only educational activities 1 or more times per year, and 84.5% stated that they commonly to very commonly experienced MD-IPE at these activities. Only 24.4% reported attending CE + CME educational activities 1 or more times per year, although 51.1% stated that they commonly or very commonly experienced MD-IPE at these activities. Additional response details are presented in Table 2.

Furthermore, only 26.7% agreed or strongly agreed that the current state of IPE occurring in CE helps facilitate collaboration between MDs and DCs. Conversely, 97.8% agreed or strongly agreed that increasing the amount of IPE occurring in CE would facilitate collaboration between MDs and DCs, and 93.3% felt it would also improve patient care.

Policy Analysis

We received responses from 42 of the 51 (82.3%) licensing boards. Eighteen of these 42 (42.8%) responding jurisdictions gave unclear replies, referred to policy documents that were unclear, or stated outright that they were uncertain and could not provide a more definitive answer. Nine of the 51 licensing boards (17.6%) did not respond to multiple contacts, and of these, the websites of only 2 provided relevant policy description to make an assessment of CME/CE policy.

Table 1 - Survey Respondent Demographics

Facility Type	%
Private sector	36.4
Department of Defense	27.3
Department of Veterans Affairs	36.4
Overall time worked in integrated practice	
Up to 5 years	22.2
6 to 10 years	26.7
11 to 15 years	22.2
16 to 20 years	24.4
More than 20 years	4.4
Sex	
Male	91.1
Female	8.9

Overall, in 26 of the 51 jurisdictions (51%), insufficient information was obtained to determine the applicability of CME credit to chiropractic relicensure. Thirteen of 51 jurisdictions (25.5%) do not accept CME; 4 of these reject it outright, and 9 would require the CME event to be approved as a CE event prior to the activity, essentially rendering the putative acceptance of CME a moot point. Twelve of the 51 jurisdictions (23.5%) accept CME credits for chiropractic relicensure.

DISCUSSION

For more than 2 decades, various entities within the chiropractic profession have strived for closer collaboration with mainstream medicine. The International Chiropractors Association published a hospital privileges guide in 1987.[17] The American Chiropractic Association (ACA) published a hospital privileges workbook in 1991 and the following year convened a Hospital Relations Committee, recently restructured as the Integrated Practice Committee.[4] Advocacy efforts by the ACA and the Association of Chiropractic Colleges (ACC) supported legislation establishing chiropractic service delivery in the Military Healthcare System in 1995 and the Veterans Health Administration in 2004.[18,19] Chiropractic schools increasingly pursue student training opportunities at medical facilities. Recent graduates and established chiropractors avidly seek positions in medical

Table 2 - Continuing Educational Activities and Perceptions

Question	Very Often/ Very Common (%)[a]	Often/ Common (%)[b]	Somewhat (%)[c]	Rarely/ Rare (%)[d]	Very Rarely/ Very Rare (%)[e]	Never (%)	Not Sure (%)
1. How often do you attend educational activities that offer chiropractic CE credit but not CME credit?	58.7	30.4	4.3	2.2	2.2	2.2	0.0
2. At these educational activities offering CE but not CME credit, how common is it for you to interact with and learn alongside MDs?	2.2	8.7	6.5	17.4	26.1	32.6	6.5
3. How often do you attend educational activities that offer CME credit but not chiropractic CE credit?	51.1	13.3	15.6	4.4	6.7	8.9	0.0
4. At these educational activities offering CME but not CE credit, how common is it for you to interact with and learn alongside MDs?	66.7	17.8	4.4	2.2	2.2	0.0	6.7
5. How often do you attend educational activities that offer both chiropractic CE credit and CME credit?	4.4	20.0	15.6	11.1	15.6	15.6	17.8
6. At these educational activities offering CE and CME credit, how common is it for you to interact with and learn alongside MDs?	24.4	26.7	13.3	0.0	2.2	4.4	28.9

CE indicates continuing education; CME, continuing medical education; MD, medical doctors.

[a] Very often = 2 or more times per year; very common = at almost every activity attended.

[b] Often = 1 time per year; common = at most activities attended.

[c] Somewhat = 1 time every 2 years; somewhat = at about half of the activities attended.

[d] Rarely = 1 time every 3 years; rare = at about one-quarter of the activities attended.

[e] Very rarely = 1 time every 4 or more years; very rare = at less than 10% of activities attended.

settings.[20] Indeed the theme of the 2011 Association of Chiropractic Colleges/Research Agenda Conference was "integration."[21]

Yet despite this strong interest—and some key successes—in advancing chiropractic integration at the health system policy level, there is no robust underlay of chiropractic integration at the undergraduate educational level for health professionals in the United States. Although exceptions do exist, chiropractic students are overwhelmingly educated in isolation from medical, nursing, and other allied health students. Thus, we sought to assess the likelihood of DC-MD integration occurring at the continuing education level.

The group of DCs we surveyed indicated they were unlikely to interact with MDs at CE-only events. While our survey results cannot be extrapolated to the general US chiropractor population, we propose that the general US chiropractor population would not have a greater likelihood of interacting with MDs at CE-only events than did the study population. Perhaps more illuminating regarding our population is that respondents quite commonly attended CME events, and at such they were likely to interact with MDs. Therefore, as far as continuing education is concerned, CME activities may be the most likely setting for IPE to occur between DCs practicing in integrated settings and MDs.

Our policy analysis revealed that while about one-quarter of the state licensing boards accept CME credit for chiropractic relicensure, about three-quarters effectively do not. Thus in the majority of instances it appears that chiropractic state licensing regulations are a barrier to the general population of US DCs attending CME events. This deterrent likely results in fewer DCs attending CME activities and, consequently, less IPE occurring between DCs and MDs. Increasing the number of jurisdictions that accept CME for chiropractic relicensure may be the most accessible initiative to increase IPC between DCs and MDs.

We were very surprised that more than half of the licensing bodies provided unclear or no information regarding the applicability of CME to chiropractic relicensure. It is worth noting that we did not ask these boards to complete a survey or comply with any burdensome request; we simply asked them to answer a question that by any account should be considered public information. While it is beyond the scope of this paper to comment on standards of conduct for licensing bodies, our finding seems to be in conflict with expected procedures.

There are several limitations to this work. Our survey population was a purposive sample of a group of DCs with integrated practice experience. Thus, the survey results cannot be extrapolated to other DC populations. As stated, we were unable to obtain adequate information from 51% of the state licensing boards. Therefore, it is not clear how their responses would change our results. However, the simple fact that we could not obtain this information despite multiple attempts makes it likely that most field DCs would not find the answer either. Thus, a DC trying to ascertain the applicability of CME to his/her relicensure has a good chance of being unsuccessful, which is likely a disincentive to attending CME activities. Additionally, this survey is simply a snapshot in time from late winter 2011 through early spring 2012, and board rules may change over time.

The results of this work may help inform future study on other aspects of DC-MD IPE. For instance, it may be interesting to assess the perception of MDs with respect to chiropractors attending CME events and/or MDs attending CE events. Furthermore, it may be helpful to explore the effects that IPE has on subsequent DC practice patterns.

CONCLUSION

This work uncovered barriers to IPE between DCs and MDs existing in the arena of chiropractic continuing education in the United States. The majority of integrated practice DCs we surveyed reported little to no IPE occurring at CE-only events, yet significant IPE is reported to be occurring at CME events. However, only a minority of chiropractic licensing bodies allow CME credit to apply to chiropractic relicensure. These factors, along with the known lack of IPE at the undergraduate chiropractic education level, may pose a significant impediment to IPC between DCs and MDs.

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CONFLICT OF INTEREST

The authors attest that there are no funding sources or conflicts of interest to declare.

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