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Curricular Inclusion of Complementary and Alternative Medicine Content in Occupational Therapy Education in the United States

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ABSTRACT

An exploratory, cross-sectional survey design was used to explore the extent to which CAM was included, what factors impacted its inclusion, topics and student learning outcomes covered, who taught the material, and what sources were used to prepare for delivering course content. While the vast majority of responding occupational therapy educators reported curricular inclusion of CAM, educational experiences for occupational therapy students varied widely. This overview of the curricular inclusion of CAM by faculty in occupational therapy programs in the United States indicated that many occupational therapy educators are responding to the demands of a more integrative healthcare system. Resolving ethical and pragmatic issues, providing faculty development opportunities, and standardizing student learning outcomes would align all stakeholders and mitigate ambiguities that currently exist surrounding the inclusion of CAM in occupational therapy education.

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Education of healthcare professionals has evolved to keep pace with the demands of the ever-changing healthcare system, where over a third of adults and nearly a tenth of children in the United States use natural products and mind-body practices (Black, Clarke, Barnes, Stussman, & Nahin, 2015; Clarke, Black, Stussman, Barnes, & Nahin, 2015). Recently updated nomenclature by the United States Institutes of Health (NIH) National Center for Complementary and Integrative Health (NCCIH), formerly the National Center for Complementary and Alternative Medicine (NCCAM), reflects greater acceptance of integrative approaches towards health and wellness in the United States (NCCIH, 2015).

Current definitions of services and products that are considered to be outside mainstream healthcare are broader and less definitive than historical definitions of complementary and alternative medicine (NCCIH, 2015). The NCCIH considers “complementary health approaches” to be nonmainstream products and services and “integrative health” to be complementary approaches that are incorporated into

mainstream healthcare (NCCIH, 2015). While most complementary approaches can be categorized into either natural products or mind and body practices, many incorporate both services and products (NCCIM, 2015). Services and products falling under the CAM umbrella have varied over the last decade, primarily due to blurred boundaries between CAM and conventional medicine as healthcare evolves (Dayhew, Wilkinson, & Simpson, 2009). Given the complex and equivocal nature of CAM, the most general perspective was used for this study.

The curricular inclusion of CAM began in professional healthcare educational programs in the late twentieth-century, mainly in response to consumer trends in the United States (Hart, 2009; Pearson & Chesney, 2007; Wiese, Oster & Pincombe, 2010). In 2000, NCCAM launched the CAM Education Program that accelerated the inclusion of CAM into medical and nursing school curricula (Lee et al., 2007). To date, over half of the medical schools in the United States offer at least one course about CAM and 60 academic health centers with affiliated medical institutions are members of the Academic Consortium for Integrative Medicine and Health (“Academic Consortium for Integrative Medicine and Health”, 2015; Cowen & Cyr, 2015). Similar to medicine, about half of nursing programs include CAM content (Booth-LaForce et al., 2010). Nursing also developed Integrative Nursing theoretical framework and the Holistic Nursing specialty certification, underscoring a shift towards an integrative approach to client care in nursing (American Holistic Nurse Association, 2015; Kreitzer, 2015).

Curricular inclusion of CAM for allied health professionals was less evident in the literature compared to medicine and nursing. Allied health professions are those providing health related services that are distinct from medicine, dentistry, and nursing (Arena, Goldberg, Ingersoll, Larsen, & Shelledy, 2011). Approximately 40% of physical therapy programs in the United States included CAM content in the curricula, most frequently including manipulative and body based methods (Geigle & Galantino, 2009). Just over half of physician’s assistant programs included CAM content, primarily as a required part of the curriculum (Lloyd, Simon, Dunn, & Isberner, 2007). Assessing CAM use, preparing to educate clients, recognizing indications and contraindications for use, and developing a respect for clients’ choices and personal beliefs were key learning objectives in physician assistant programs (Lloyd et al., 2007). Roughly half of 2-year allied health and nursing program curricula in New Jersey included CAM content, primarily due to faculty interest or when textbooks presented the material (Bruguier, 2008). Database searches conducted using Academic Search Premiere, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, Education Resources Information Center (ERIC), and Medline failed to yield additional studies related to the curricular inclusion of CAM in allied health programs, such as speech language pathology, dental hygiene, and occupational therapy.

Although a consensus for best practices for delivering CAM content has yet to be established, important benefits emerged when CAM was included in

healthcare curricula. Students demonstrated growth in professionalism, value of interdisciplinary care, commitment to personal growth and self-care, and confidence when applying knowledge about CAM and communicating with clients and CAM providers (Baugniet, Boon, & Østbye, 2000; Cowen & Cyr, 2015; Elder, Hustedde, Rakel & Joyce, 2008; Gaylord & Mann, 2007; Torkelson, Harris & Kreitzer, 2006). Students also reported more positive attitudes towards CAM, an increased likelihood to refer patients to CAM services, and an increased awareness of CAM use by patients (Baugniet et al., 2000; Cowen & Cyr, 2015; Torkelson et al., 2006). In recognition that health and healthcare decisions are impacted by personal, cultural, ethnic, and spiritual contexts, CAM inclusion cultivated greater awareness of and respect for therapies that are valued by various cultures and aligned with patients' personal health characteristics (Cowen & Cyr, 2015; Elder et al., 2008; Gaylord & Mann, 2007; Helms, 2006). Growth in faculty development opportunities, numbers of new programs, and regular collaboration within and between institutions were benefits identified at the institutional level (Lee et al., 2007).

Although the prevalence of CAM in professional education is well-documented, barriers to its inclusion were also evident in the literature. The lack of reliable evidence supporting the efficacy of CAM therapies was the most commonly cited barrier (Geigle & Galantino, 2009; Lee et al., 2007; NCCIH, 2015; Pearson & Chesney, 2007). Administrative barriers include limited space for adding CAM content into already full curricula, limitations imposed by accrediting institutions, and unsustainable funding for supporting inclusion of CAM content (Bruguier, 2008; Geigle & Galantino, 2009; Lee et al., 2007; Pearson & Chesney, 2007). Perceptions of CAM held by course directors, deans, department chairs, and others who have authority over the curriculum and a shortage of qualified faculty to develop and deliver CAM content also negatively impacted the inclusion of CAM content in professional healthcare curricula (Geigle & Galantino, 2009; Lee et al., 2007; Pearson & Chesney, 2007).

While the literature describes the curricular inclusion of CAM for select healthcare disciplines, no studies were found related to occupational therapy. Occupational therapy is an allied health profession that uses occupations to support meaningful participation in valued life activities by addressing physical, psychological, and cognitive aspects of well-being through the lifespan (American Occupational Therapy Association [AOTA], 2010; AOTA, 2015a). Including CAM in occupational therapy practice for the promotion of occupational participation is a natural progression given the common holistic philosophical roots shared by occupational therapy and CAM practitioners (AOTA 2015b, Barrett et al., 2003; Brachtesende, 2005).

AOTA's position paper on CAM describes its inclusion in occupational therapy practice, despite the lack of mandated educational standards for occupational therapy education by the Accreditation Council for Occupational Therapy Education (ACOTE, 2012; AOTA, 2011). The CAM position paper considers the use of CAM in occupational practice to be preparatory methods for facilitating participation

in occupation for health promotion and participation in life (AOTA, 2011). Practicing practitioners are responsible for developing competence in CAM interventions, abiding by laws governing CAM practices, and appreciating ethical considerations regarding inclusion of CAM in practice (AOTA, 2011). Little is known about the curricular inclusion of CAM in occupational therapy education, nor the possible benefits or barriers to its inclusion. Without this information, it is unclear if future occupational therapy practitioners are being adequately prepared for practice. Clarifying the inclusion of CAM in occupational therapy education could be valuable for a larger discussion about CAM in occupational therapy practice and education.

Purpose

The purpose of this project was to present an overview of the curricular inclusion of CAM by faculty in occupational therapy programs in the United States. Four research questions were posed: (1) To what extent was content about CAM included in occupational therapy education curricula in the United States, (2) What factors impacted the inclusion of CAM, (3) When included, what CAM topics were covered and what were the student learning outcomes for this content and (4) When included, who taught CAM content and what sources were used in preparation for teaching course content?

Methods

Design and sample

An exploratory, cross-sectional survey design was used for this study. This study was approved by the Review Board for Human Subjects Research at the institution where the author was employed and informed consent was obtained from all respondents. Occupational therapy educators who were registered and licensed occupational therapy practitioners and employed at accredited occupational therapy and occupational therapy assistant programs in the United States were targeted for this study.

Data collection

Data were collected using Qualtrics, a web-based questionnaire and survey software. Demographic survey items included respondent's personal and professional attributes. Respondents' sex, age in years, and race or ethnicity was used to describe personal attributes. Primary practice area of expertise, employment setting, employer location, years of teaching experience, year highest degree was earned, and additional training related to CAM were used to describe the respondents' professional attributes.

The survey was designed to measure occupational therapy educators' knowledge about CAM, attitudes towards curricular inclusion of CAM, and the inclusion of

CAM at institutions where the respondents were currently employed. Given the absence of a standardized questionnaire about the curricular inclusion of CAM, topics for the survey were based on the review of related research. Face validity of each survey item was determined by the author to ensure questions were necessary, specific, and objective. Survey items used the original nomenclature for CAM to maximize familiarity with the topic being explored in the study. A definition of CAM was excluded from the survey due to the evolving definition of CAM as was a list of services or products that would be considered CAM because the boundary between CAM and conventional medicine continues to evolve.

The survey included three items assessing occupational therapy educators' knowledge about CAM, three items assessing attitudes towards the curricular inclusion of CAM in occupational therapy education, and six items asking respondents to describe curricular inclusion of CAM at the institutions where they are currently employed. Lastly, an open-ended item provided the option for respondents to share comments or ideas about the curricular inclusion of CAM where they are currently employed. Strict confidentiality practices were used during data collection and analysis to ensure specific results cannot be linked to any individual or institution.

Procedure

Email addresses were obtained for occupational therapy educators from program websites. The survey was emailed to a total of 1,374 occupational therapy educators from accredited occupational therapy and occupational therapy assistant programs across the United States. Respondents were encouraged to invite colleagues that may have been inadvertently omitted from the original list, preventing a precise count of possible respondents. Reminder emails were sent two and four weeks after the initial email.

Data analysis

Descriptive statistics for proportions were reported for multiple choice survey items using SPSS 22.0. Responses to open-ended survey items were reviewed, organized by similar responses, and counted to identify commonalities in the feedback related to the inclusion of CAM into occupational therapy curriculum.

Results

Demographic attributes and distribution of respondents was representative of occupational therapy educators and institutions as detailed in [Table 1](#) (AOTA, 2014). Over half of the respondents denied additional CAM training beyond an occupational therapy degree, while just over a third of the respondents reported engaging in continuing education courses, training, and certificate programs. A small percentage reported having an additional degree in CAM, although none of the identified degrees represented CAM.

Table 1. Demographic characteristics of respondents ($N = 302$).

Characteristic	Number	%
Gender		
Female	239	86.6
Male	29	10.5
Chose not to answer	8	2.9
Race or ethnicity		
Black	8	2.9
Asian or Pacific Islander	7	2.5
Hispanic	6	2.2
Multiracial	3	1.1
White	235	85.1
Chose not to answer	14	5.1
Other	3	1.1
Primary Area of Expertise		
Children and youth	65	23.8
Health and wellness	13	4.8
Mental health	33	12.1
Productive aging	27	9.9
Rehabilitation, disability and participation	97	35.5
Work and industry	7	2.6
Other*	31	11.4
Employment setting		
OT assistant program	30	11.0
OT master's program, entry level	208	76.5
OT master's program, post professional	12	4.4
OT doctoral program, entry level	12	4.4
OT doctoral program, post professional	10	3.7
CAM training in addition to OT degree		
No additional training	142	55.7
Continuing education course(s)	42	16.5
Trainings	22	8.6
Certificate	26	10.2
Degree	13	5.1
Other	10	3.9

Note. All N in tables equal the number of respondents who answer the specific question.

*Other primary areas of expertise included higher education, multiple areas of practice, and hand therapy.

Table 2 summarizes the extent to which CAM was included in occupational therapy education in the United States. The vast majority of occupational therapy educators participating in the study report curricular inclusion of CAM (79%), with independent learning opportunities (35%) being the most frequent response for this survey item.

Table 3 summarizes factors impacting the curricular inclusion of CAM and was categorized by administrative factors and faculty outlook. Respondent self-reported knowledge about CAM was detailed in **Table 4**. Of those respondents who reported having a good understanding of CAM (26%), twice as many were comfortable teaching course content about CAM (18%) as opposed to teaching occupational

Table 2. Curricular inclusion of CAM content ($n = 240$).

Categories of Inclusion	Number	%
No content	52	21.7
Independent Learning Opportunities	83	34.6
Elective Course(s)	24	10.0
Required Course(s)	48	20.0
Other	33	13.8

Table 3. Factors impacting curricular inclusion of CAM.

Factors	Level of Impact on Curricular Inclusion of CAM				
	% Definitely	% Pretty Sure	% Possibility	% Does Not	% Not Sure
	Administrative Factors				
Lack of space in an already packed curriculum (<i>n</i> = 241).	48.5	24.5	15.8	9.1	2.1
It's not mandated by ACOTE (<i>n</i> = 239).	51.0	20.1	18.8	7.1	2.9
There is a lack of qualified instructors to appropriately cover the content (<i>n</i> = 239).	24.7	38.1	19.7	14.6	2.9
Faculty has limited knowledge about CAM and how it relates to occupational therapy (<i>n</i> = 240).	13.3	28.7	38.8	13.8	5.4
	Faculty Outlook				
There is a lack of scientific evidence proving the efficacy of CAM therapies (<i>n</i> = 241).	19.5	25.3	30.3	19.1	5.8
Inclusion of CAM in the education of occupational therapy students is not valued by faculty (<i>n</i> = 241).	8.3	18.3	39.0	24.1	10.4
Faculty lacks interest in CAM (<i>n</i> = 239).	7.1	20.5	34.3	25.1	13.0
There is a negative perspective about CAM among faculty (<i>n</i> = 239).	4.6	10.0	21.3	45.2	18.8
Other (<i>n</i> = 23)*					

*Other included concern that including CAM alters the profession's focus on occupation, CAM is outside the scope of occupational therapy practice, faculty lacked awareness of the value of CAM. CAM content was better suited for an elective, and using CAM does not relate to entry level practice.

therapy students to incorporate CAM into interventions (8%). As detailed in [Table 5](#), respondents who reported additional training in CAM felt equally capable of teaching CAM content (25%) and teaching interventions for use in occupational therapy practice (20%).

The most commonly included CAM topics were the greater acceptance of CAM in the evolving healthcare system, services provided by various CAM practitioners, and review of CAM literature as detailed in [Table 6](#). Respondents indicated student learning outcomes for CAM content were unknown or not established (57%;

Table 4. Self-reported knowledge about CAM (*n* = 261).

Knowledge statements	Number	%
I have little to no knowledge of CAM, so I avoid discussing the topic when it come up among students or colleagues.	10	3.8
I have limited knowledge of CAM. I know just enough to discuss some CAM services superficially with students or colleagues.	92	35.2
I have a pretty good understanding of CAM, but I would not feel prepared to teach course content about CAM.	84	32.2
I have a good understanding of CAM and I feel prepared to teach course content.	46	17.6
I am well versed in CAM and I feel prepared to teach occupational therapy students how to incorporate CAM into conventional occupational therapy interventions.	21	8.0
Other	8	3.1

Table 5. Self-reported knowledge of cam and additional CAM training.

Knowledge statements	Without Additional CAM Training (<i>n</i> = 209)		With Additional CAM Training (<i>n</i> = 91)	
	Number	%	Number	%
I have limited knowledge of CAM. I know just enough to discuss come CAM services superficially with students or colleagues.	75	43.6	17	19.1
I have a pretty good understanding of CAM, but I would not feel prepared to teach course content about CAM.	55	32.0	29	32.6
I have a good understanding of CAM and I feel prepared to teach course content.	24	14.0	22	24.7
I am well versed in CAM and I feel prepared to teach occupational therapy students how to incorporate CAM into conventional occupational therapy interventions.	3	1.7	18	20.2
Other	5	2.9	3	3.4

Table 6. CAM topics included in occupational therapy education (*n* = 448).

CAM Topics	Number	%
NA- I don't teach content about CAM.	107	23.9
The evolving healthcare system and its greater acceptance of CAM.	73	16.3
A general overview of services that are provided by CAM practitioners.	71	15.9
Literature on various CAM services.	62	13.8
Delineation of services between CAM and occupational therapy.	58	13.0
Student and societal attitudes towards CAM.	42	9.4
Education, training, and licensing of various CAM practitioners.	2	.5
Other*	33	7.4

Note. Multiple responses allowed.

*Other responses reinforced that learning outcomes were most commonly focused on developing awareness about CAM services, the role of CAM in prevention, and how CAM was utilized by occupational therapy practitioners.

Table 7). Of those respondents who identified student learning outcomes, approximately a third focused on awareness of CAM (34%) and few respondents focused on preparing students to include CAM in occupational therapy interventions (4%).

Table 7. Student learning outcomes for CAM content (*n* = 217).

Student Learning Outcomes	Number	%
NA: Student learning outcomes were not established or are unknown for CAM content.	123	56.7
Student will verbalize understanding of various CAM services for the purposes of discussing the topics with their clients.	53	24.4
Student will compare and contrast CAM services for the purposes of referring to and collaborating with appropriate CAM practitioners.	22	10.1
Students will be prepared to perform a variety of CAM therapies and services as part of occupational therapy interventions.	8	3.7
Other	11	5.1

Table 8. Educators teaching CAM ($n = 215$).

Educators	Number	%
Occupational therapy faculty, no CAM training	113	52.6
Occupational therapy faculty, CAM training	17	7.9
Non-occupational therapy faculty	14	6.5
CAM practitioners	25	11.6
Other*	46	21.4

*Other responses included content was taught by multiple educators and guest speakers, including occupational therapy faculty, non-occupational therapy faculty, CAM practitioners, care recipients, and students.

The majority of CAM content was taught by occupational therapy faculty members, with less than 10% holding an additional CAM degree, certification, or training as detailed in [Table 8](#).

Sources for preparing course material about CAM are detailed in [Table 9](#), with reading of peer reviewed journal articles as the most frequent source.

Educator comments

Respondents offered comments on the curricular inclusion of CAM in occupational therapy education not captured in the survey ($n = 42$). The majority of comments supported the inclusion of CAM for the following reasons: expose students to CAM practices supported by evidence, develop clinical reasoning skills for collaboration with and referrals to appropriate CAM practitioners, and exposure to CAM within a cultural context. Some suggested that students would benefit from experiential training in CAM and exposure to billing related to CAM.

Most frequently stated concerns include covering additional content given administrative constraints, ambiguity in role delineation between CAM and occupational therapy, and the absence of a clear link between CAM and occupation. A small number of respondents strongly opposed the inclusion of CAM in occupational therapy education, citing limited scientific evidence as the primary grievance. A handful of respondents voiced interest in openly discussing issues related to occupational therapy and integrative health in response to the perception that

Table 9. Sources for preparing course content about CAM ($n = 422$).

Sources	Number	%
NA- I don't teach content about CAM	107	25.4
Reading peer reviewed journal articles	88	20.9
Personal use of CAM services informs my teaching	54	12.8
Reading textbooks	53	12.6
Collaboration with CAM practitioner(s) about course content	42	10.0
Content from the Internet	37	8.8
Weekend course(s)	16	3.8
Observation of CAM practitioner(s)	14	3.3
Other*	11	2.6

Note. Multiple responses allowed.

*Other sources of preparation included NCCAM (recently renamed NCCIH), AOTA website and position paper, formal courses in degree programs, and credible continuing education programs.

occupational therapy profession is generally uninformed from a broader perspective and has limited knowledge about CAM.

Discussion

Curricular inclusion of CAM in by faculty in occupational therapy programs was generally representative of other professional healthcare programs in the literature, with one notable exception. The primary factors equally limiting the inclusion of CAM in occupational therapy education were lack of space in an already crowded curriculum and the absence of an ACOTE imperative to include it. This differs from the literature where lack of evidence for the efficacy of CAM was the most common barrier (Geigle & Galantino, 2009; Lee et al., 2007; NCCIH, 2015; Pearson & Chesney, 2007). For the small number of respondents who strongly opposed including CAM in occupational therapy education, limited scientific evidence was the primary reason. Occupational therapy's holistic philosophical background, in addition to the strategic placement of CAM content in already required courses and independent learning opportunities, may account for the high rate of curricular inclusion of CAM reported by occupational therapy educators.

CAM content was presented most commonly by occupational therapy faculty without additional CAM training and occasionally by CAM practitioners. Of the occupational therapy educators without additional training in CAM, most felt inadequately prepared to teach general content about CAM and only a handful felt equipped to instruct students to incorporate CAM into occupational therapy interventions, yet over half reported teaching CAM content. Educators with additional training in CAM were more comfortable teaching general CAM content and CAM interventions for use in occupational therapy practice. Educators report some content was taught by multiple educators representing occupational therapy, CAM practitioners, guest speakers, and care recipients. There appears to be an inadequate number of qualified instructors needed to teach CAM content to occupational therapy students, confirming respondent perceptions. Without an ACOTE standard requiring the inclusion of CAM in occupational therapy curricula, it stands to reason that there would be a shortage of trained occupational therapy faculty members due to allocation of resources being prioritized around content mandated by ACOTE. It is unclear if the self-reported sense of inadequacy among occupational therapy educators affects student learning outcomes or if variations in quality of instruction exist based on the type or quantity of additional training.

Educators primarily used informal methods, such as literature review, reading textbooks, personal use of CAM, credible websites, and continuing education workshops, to prepare for teaching content about CAM. Main topics covered were consistent with the literature and included a general overview of CAM products and practices, exposure to the evolving healthcare system that is more accepting of CAM, review of CAM literature, and role delineation between service providers (Geigle & Galantino, 2009; Lloyd et al., 2007). Occupational therapy educators may be

obtaining potentially biased or incomplete information about this complex topic despite using the best available informal learning methods.

Student learning outcomes were examined to determine the rationale behind including CAM in occupational therapy curricula in the absence of ACOTE standards. Student learning outcomes focused predominantly on preparing students to communicate with occupational therapy clients, less on collaborating with and referring to appropriate CAM practitioners, and rarely to perform CAM as part of occupational therapy interventions. Interestingly, over half of the respondents were unaware of or denied establishing student learning outcomes for CAM content. It is unclear if the depth of content presented to students represents the level of preparation for teaching CAM content or a philosophical stance where the role of CAM in occupational therapy is limited. Given the diversity in training, personal use of, and philosophical stance on the inclusion of CAM among occupational therapy educators, educational standards could be beneficial. Having a better understanding of what is currently being taught could lead to a discussion about the potential need for an educational standard to help provide guidelines on the curricular content and support allocation of resources needed for faculty development regarding CAM. Standardization of required CAM content could facilitate the preparation of more versatile occupational therapy practitioners, which may benefit occupational therapy practitioners, their clients, and permit new occupational therapy practitioners to keep pace in an evolving healthcare system.

Respondents provided comments providing insight into additional matters related to CAM that were important. Whether or not respondents thought CAM ought to be included, concerns about professional identity, role delineation, ethical and pragmatic considerations related to education and practice, and philosophical differences were raised. Viewpoints varied greatly and most comments reflected thoughtful consideration of the topic. The desire for an open discussion about occupational therapy and integrative health was affirmed by multiple respondents, speaking to its complex nature.

Implications for Occupational Therapy education

This study presents a baseline description for the curricular inclusion of content about CAM in occupational therapy education, providing valuable information about how future occupational therapy practitioners are being prepared to practice in a healthcare system that is more accepting of CAM. This study also uncovered existing incongruities that may be contributing to ethical and pragmatic ambiguities in occupational therapy education and practice and the need for clarification of the role of CAM within the profession.

The majority of participating occupational therapy educators acknowledged a knowledge gap for teaching students about general CAM content and almost all respondents reported feeling unprepared to teach students how to incorporate CAM into occupational therapy interventions. Despite the steady use of CAM by a significant number of adults and children in the United States and the trend to include

CAM in professional healthcare education, only 20% of responding occupational therapy educators report CAM was included in required courses and all do so voluntarily. Faculty preparation, topics covered, instructional methods, and student learning outcomes were inconsistent, suggesting the possibility of great variation in preparedness for future occupation therapy practitioners. Without consistency, educators may be at a disadvantage for delivering quality content and students may lose out on the many identified benefits of including CAM content (Baugniet, Boon, & Østbye, 2000; Gaylord & Mann, 2007; Helms, 2006; Torkelson et al., 2006).

Study limitations

A non-probability sample of convenience was used, which may limit external validity to the broader population of occupational therapy educators. The number of survey emails sent to colleagues from original email recipients was not tracked, prohibiting the ability to calculate the total number of emails sent or an accurate response rate. The survey responses were tracked by occupational therapy educator, instead of occupational therapy program, to safeguard the anonymity of the respondents. Thus, the data may not be representative of all occupational therapy programs in the United States. A list of products and services considered to be CAM and a definition of CAM were not provided in the survey due to the fluid nature of the topic. This exclusion limited the generalizability of the results and may have resulted in inconsistencies among responses due to self-defined perceptions of CAM.

Future research

Further research is needed to explore the possible benefits of including CAM in occupational therapy education for all stakeholders, including clients, students, educators, healthcare teams, and the profession as a whole. Once potential benefits are identified, strategies for overcoming barriers can be developed. Establishing best practices for the instructional methodology for CAM content could improve consistency of educational experiences among programs, thus improving consistency within the profession. Exploring opportunities for and benefits of interprofessional education and collaboration among teams including CAM practitioners could benefit healthcare teams and clients who are using both conventional medicine and CAM.

Conclusion

Many occupational therapy educators are responding to the demands of the more integrative healthcare system by including CAM content in occupational therapy education, albeit inconsistently and voluntarily. Variations in faculty qualifications and preparation, CAM topics covered, expected student learning outcomes, and philosophical stance on inclusion of CAM provides inconsistent preparation of future occupational therapy practitioners. Educator concerns

about professional identity, role delineation, ethical and pragmatic considerations highlight the need for further consideration of the occupational therapy's stance on the inclusion of CAM in occupational therapy education and practice. Given the current trends in CAM use and inclusion in professional healthcare education, occupational therapy students can only benefit from being prepared for practice that already includes CAM. Resolving ethical and pragmatic issues, providing faculty development opportunities, and standardizing student learning outcomes would align all stakeholders and mitigate ambiguities that currently exist surrounding the inclusion of CAM in occupational therapy education.

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