Choose Wisely: the Quality of Massage Education in the United States

Martha Brown Menard, PhD, LMT

School of Mind-Body Medicine, Saybrook University, San Francisco, CA, USA

Background: **Assessing the quality of post-secondary education remains a difficult task, despite many efforts to do so. No consensus or standard definition of educational quality has yet been agreed upon or developed.**

Purpose: **This study evaluated the quality of massage education in the United States using three closely-related questions to frame the evaluation: 1) Is accreditation improving the quality of education for massage therapy? If not, then what do we need to do to improve it? 2) Does accreditation by COMTA specifically improve quality of education compared to other vocational accrediting agencies that do not require curriculum competencies specific to massage? 3) Would adding competencies at an "advanced" level, or specific degree levels, be helpful in advancing massage therapy in the eyes of other health professions?**

Setting: **United States**

Participants: **Members of a national massage education organization, members affiliated with the educational arm of two national professional associations, and members of two national education organizations in complementary and integrative health care (CIHC).**

Research Design: **Mixed methods evaluation using three data sources: existing gainful employment data from the US Department of Education, analyzed by type of massage program and accreditation agency to determine average and relative value for cost; numbers of disciplinary actions against massage practitioners reported by state regulatory agencies, and a qualitatively developed survey administered to two different groups of educators.**

Results: **Average tuition cost across all reporting schools/programs was $13,605, with an average graduation rate of 71.9%. Of the schools and programs that reported student loan data, 84% of students received federal financial aid. Median loan amount was $8,052, with an average repayment rate of 43.4%. Programs in corporate-owned schools had the highest average cost, highest median loan amount, and lowest repayment rate, while community college programs had the lowest average cost, lowest graduation rate, and lowest median loan amount. Repayment rate data were not available for community colleges. Of the five states and the District of Columbia that require school accreditation, there were 208 disciplinary actions from 2009-2011. The remaining 28 regulated states that do not require school accreditation reported 1,702 disciplinary actions during the same period. Seventy-five percent of massage educators and 58% of CIHC educators stated that the current quality of massage education is inconsistent, with only 10% of massage educators and 8% of CIHC educators agreeing that current educational quality is adequate. Fifty-six percent of massage educators and 40% of CIHC educators agreed that educational quality needs to improve if massage therapists want to be considered comparable to other allied health professionals. Both groups suggested specific areas and means of improvement, including raising admission requirements and offering an academic degree.**

Conclusions: **Accreditation appears to improve the quality of massage education; however, more consistent methods for calculating tuition costs, educational outcomes, and classifying severity of disciplinary actions are needed. Both quantitative and qualitative evidence indicates that the current quality of massage education in the US is inconsistent and less than adequate. Specific areas of improvement needed for massage therapists to be perceived as comparable to other allied healthcare providers are described.**

KEY WORDS: massage education; educational research; accreditation; educational quality

INTRODUCTION

Assessing the quality of post-secondary education remains a difficult task [1], despite many efforts to do so. Often, quality is in the eye of the beholder or only conspicuous by its absence. Much has been written over the past twenty years, and no consensus or standard definition of educational quality has yet been agreed upon or developed, including quality in career and technical or vocational education[2,3,4].

Dew[5] points out that much of the confusion in defining educational quality stems from the simultaneous use of very different frameworks to describe it. These are quality as endurance, quality as luxury or prestige, quality as conformity to requirements, quality as continuous process improvement, and quality as value added—we expect that those completing any educational program to have gained demonstrable skills or knowledge as a result. The most relevant frameworks for evaluating the quality of massage education from an accreditation perspective are: endurance, as it applies directly to the financial stability of an institution; conformity to requirements, as it applies to meeting accepted educational standards; value added, which can be evaluated by metrics such as graduation rates, employer placement rates, and pass rates on licensing examinations; and process improvement, as reflected in the institutional self-study. The self-study process typically combines and documents elements of all these frameworks.

It is important to distinguish between the role of quality in accreditation, which focuses on setting base standards that organizations must meet to be considered acceptable providers of education services, and quality as a 'stretch' goal of achieving educational excellence, which individual institutions may attempt to achieve for a variety of purposes. The Baldridge National Quality Awards in health care and education[6] are examples of the latter, while the Commission on Massage Therapy Accreditation (COMTA) accreditation standards exemplify the former. The self-study process that most educational accreditation organizations employ can serve not only as a summative evaluation of how well a program meets basic requirements, but also as a formative means to build a blueprint for excellence, through identifying potential areas of improvement. This formal written self-evaluation of an institution's compliance with established educational standards not only provides documentation of its strengths and weaknesses as identified by multiple stakeholders such as faculty, students, and alumni, but is ideally a reflective process allowing administrators to consider from a broad perspective how well the institution is meeting its own goals and mission.

The framework of quality as process improvement and the related concept of quality management has received a great deal of attention since its widespread implementation into American businesses during the 1990s. The concept of total quality management (TQM) has been applied to education, most notably by Edward Sallis[7]. In attempting to apply quality management to education, however, Sallis proposes a compelling reason for why TQM should be applied to education, and that is accountability.

Accountability may be one reason for the current trend in assessing educational quality through focusing not only on traditional 'input' measures, such as teacher-student ratios, teacher credentials, and the size or scope of physical facilities such as libraries, but also on educational outcomes such as graduation rates, time to degree completion, and job placement rates. Job placement and debt repayment rates especially have assumed increased scrutiny, given the high cost of post-secondary education. Education cost is a popular and controversial topic currently, as more post-secondary students graduate with significant loan burdens[8]. For-profit corporate colleges and schools, some of which offer massage therapy programs, have recently been the subject of increased criticism by federal agencies[9] and by student consumers themselves[10].

While the majority of for-profit massage schools are proprietary, privately owned by individuals, corporate-owned schools and career and technical colleges graduate a disproportionate number of new practitioners. According to a 2013 Associated Bodywork and Massage Professionals (ABMP) report, corporate massage schools represented 5% (60) of the estimated 1,319 programs, but graduated 14% of all students—almost as many as the accredited proprietary schools (145) that constituted 11% of all programs and graduated 19% of the estimated 39,000 students. In contrast, non-accredited schools (541) constituted 41% of all programs, but graduated only 34% of students. Enrollment numbers by category of school provide some explanation for this trend. The average number of students enrolled per school for corporate schools is 84, compared to an average of 31 students per school for all proprietary schools (accredited and non-accredited combined), almost three times as many[11].

Massage Therapy Education

As a discipline, massage therapy currently stands at an uneasy crossroads of vocational training and academic post-secondary education, as evidenced by the variety of educational institutions that offer training programs in massage therapy. These range from purely vocational programs offered at career and technical training schools to two-year associate degrees offered through community colleges. Some universities that train doctors of chiropractic, acupuncture and Oriental medicine, and naturopathy also offer both certificate and associate degree programs in massage. There is even a new four-year bachelor degree program in massage therapy offered at Siena Heights University, where applicants can receive academic credit for having passed the National Certification Examination. (http://www.sienaheights.edu/LandingPages/MassageTherapy.aspx)

A longstanding tension exists between those who view massage education as strictly vocational and want to have it remain so, focused on training students to provide a personal service, while others see it as an integrative health care discipline similar to acupuncture and other complementary and

integrative therapies. Among the states that regulate the practice of massage therapy, it is more often as a health profession rather than a personal service. The rapid growth of massage therapy in the larger context of the integrated health care movement by consumers has also contributed to the profession's ongoing identity crisis. According to a recent industry survey, consumer use of massage for health and medical reasons is increasing annually, as are referrals from physicians and other health care providers[12].

As massage became more widely used by US consumers in the 1990s, the massage therapy industry grew, as well. The numbers of educational programs and practitioners increased rapidly, from an estimated 180,880 practitioners in 2000 to 307,104 practitioners in 2012, a 58% increase[12,13]. The number of massage programs showed a comparable increase, from just over 600 in 2000, to 1440 in 2011[14]. The recession of 2008 together with market saturation has cooled these trends to some extent, which has been documented through periodic surveys by two major professional associations of massage therapists.

Currently, massage education programs are in a state of flux that reflects concerns and discussion regarding educational quality within the profession, as demonstrated by the development and recent publication of the Entry Level Analysis Project (ELAP)[15]. The impetus for the ELAP project was the perceived inconsistency of quality, depth, and focus in entry-level massage therapy education by national leaders from a number of professional organizations, including the Alliance for Massage Therapy Education (AFMTE), the American Massage Therapy Association (AMTA), Associated Bodywork & Massage Professionals, Inc. (ABMP), the Federation of State Massage Therapy Boards (FSMTB), the Massage Therapy Foundation (MTF), the National Certification Board for Therapeutic Massage & Bodywork, Inc. (NCBTMB), and COMTA. The recently released ELAP final report detailing foundational learning objectives and outcomes complements the National Teacher Education Standards Project (NTESP)[16], initiated by the AFMTE, to develop detailed teacher training competency standards.

This evaluation adds to the discussion on massage education quality and it is focused on three broad objectives: 1) Is accreditation improving the quality of education for massage therapy? If not, then what do we need to do to improve it? 2) Does accreditation by COMTA specifically improve quality of education compared to other vocational accrediting agencies that do not require curriculum competencies specific to massage in their standards? 3) Would adding competencies at an "advanced" level, or specific degree levels, be helpful in advancing massage therapy in the eyes of other health professionals? And if so, are there any particulars that they would expect to see in such advanced levels of training to consider working with a massage therapist in their own type of practice?

METHODS

To answer these questions, a mixed methods approach was used. Education quality was examined quantitatively in terms of measureable educational outcomes including tuition costs, graduation rates, job placement rates, median loan amounts, and repayment rates, organized by type of school or program and by accreditation agency. Types of schools and programs are based on the types used in published data from the US Department of Education's 2011 Gainful Employment metrics. Data was collected by COMTA staff using both internal sources and publicly available data from the US Department of Education Gainful Employment 2011 Informational Rates[17], as well as publicly available information published on individual school websites.

Schools that were clearly identifiable as part of corporate chains were grouped for sub-analysis. Especially for several of the large chains of corporate-owned schools, there was no massage program found at the location originally listed in the US Department of Education report, and the apparent closures have not always been able to be confirmed. However, these branches/schools were included in the analysis because they were associated with a repayment rate, and the estimated number of closures in and of itself is relevant data. According to the 2013 ABMP schools survey, the number of massage programs overall has decreased from a high point of 1,600 in 2009, to 1,440 in 2011, to 1,310 in 2013[11].

As an additional indirect measure of educational quality related to accreditation, the numbers of disciplinary actions again practitioners in states that require graduation from an accredited school were compared to the numbers in states that do not, over a three-year time period of 2009–2011 across all regulated states. The data were collected directly from state massage regulatory agency websites where possible, and through contacting the agency directly when such information was not published online.

To complement the quantitative data analysis, individual and focus group interviews regarding the quality of massage education were conducted with two groups. The first consisted of massage educators/practitioners recruited from the AFMTE, ABMP, and AMTA. The second group consisted of complementary and integrative health care (CIHC) educators/practitioners recruited from the Consortium of Academic Health Centers for Integrative Medicine (CAHCIM) and the Academic Consortium for Complementary and Alternative Health Care (ACCAHC). These interviews informed the development of two parallel surveys focused on the current quality of massage education. The survey content, wording

of individual questions, and answer choices were based on information collected during the qualitative interviews. Both surveys were administered via weblink to allow respondents to complete the surveys anonymously and encourage unbiased responses. The massage educators' version was sent via the AFMTE e-newsletter and ABMP and AMTA school newsletter distribution lists. The CIHC educators' survey was emailed to members of CACHIM and ACCAHC, with the goal of reaching a comparable audience of integrative health care educators knowledgeable about massage therapy, yet outside the massage profession. Both surveys contained response options for open-ended comments.

IRB review of the evaluation was performed by Solutions IRB, a licensed commercial IRB review provider, and approval for the study under the category of exempt research was obtained for all phases and methods used in the evaluation prior to its start.

RESULTS

Summary of Schools Data

Of the 487 schools from which publicly available data were obtained, 386 programs reported tuition costs, with program lengths varying from six months up to two years. Whenever a school offered multiple massage programs of varying lengths, costs were averaged. In most cases, tuition cost was taken from the Gainful Employment disclosures. However, occasionally it was not reported there, so COMTA staff gathered it from other places on the school's website or catalog. Staff attempted to maintain consistency on how the tuition cost was calculated, but consistency was not always possible. For example, some schools include licensure fees, books, and supplies added to the direct tuition costs, where others do not, and these details were often not specified. For this reason, cost should be considered an approximate number. A comparison of average costs by type of institution is shown in Table 1.

With these caveats in mind, the average tuition cost across all schools/programs was $13,605. Costs varied widely, ranging from $2,392 for a certificate that could be completed in six months, to as much as $46,845 for a two-year associate's degree at a private institution. Longer programs at for-profit and corporate schools generally had higher tuition costs, averaging $13,505 and $16,562, respectively. Of these, the longest programs tended to be community college programs leading to associate degrees over three to four semesters and with a much lower average cost of $5,647. Certificate programs offered through CAM universities had an average cost of $10,768.

Table 1. Average Tuition Cost and Educational Outcomes by Type of Program

	Corporate Programs	*All Other For-Profit Programs*	*Community College Programs*	*University Programs*
Tuition costs	$16,561.77	$13,505.24	$5,647.05	$10,768.40
Graduation rate	70.38%	73.24%	66.32%	74.44%
Placement rate	74.50%	77.97%	87.04%	74.59%
Median loan amount	$9,998.85	$8,228.05	$2,004.06	$9,871.75
Repayment rate	41.31%	46.70%	not available	83.45%

Outcomes, including graduation rates and placement rates, are also allowed to be calculated using more than one method. Standards for reporting 'on-time' graduation rates for the USDE were changed during the time this evaluation was conducted, and do not always consider the total number of students who started a program and graduated within the same cohort, a measure that many consider to be more closely related to educational quality. The same variation in calculation methods also applies to job placement rates; some schools use their pass rates on licensing examinations in lieu of actual job placement. Massage programs in public institutions presented the most difficulty in finding the required outcomes data. These programs do not have to consistently follow the Gainful Employment requirements and often have additional state regulations to follow. Often only rates were provided for the institution as a whole or for the three largest programs (which generally do not include massage). Rates are listed when they could be found, but there are numerous omissions. All outcomes were averaged by type of school, and these results are also presented in Table 1.

Average reported graduation rate across all programs was 71.9% and reported job placement rate was 95.6%. These numbers are very likely to be overestimates, especially when examined in light of the financial aid data. Of the schools and programs that reported student loan data, 84% of students at those institutions received federal financial aid. The median loan amount was $8,052. The average percentage of all massage therapy program students included in this analysis who repay their loans is only 43.4%.

Average tuition costs and educational outcomes for each accreditation organization are listed in Table 2. COMTA-accredited schools and programs show an average tuition cost that is below the reported national average and below that reported for for-profit schools, and have the highest repayment rate among all accreditation organizations. Most massage therapy accreditation organizations accredit institutions; COMTA is the only one of these that offers programmatic accreditation specific to massage therapy. NACCAS, which primarily accredits schools offering training in cosmetology, skin care, massage, and related subjects, is a close second in terms of repayment rates, and has the lowest average tuition cost.

TABLE 2. Average Tuition Cost and Outcomes by Accreditation Organization

	ABHES	*ACCSC*	*NACCAS*	*ACICS*	*COE*	*ACCET*	*COMTA*
Average tuition cost	$13,115.13	$14,102.81	$9,253.98	$18,581.28	$11,224.13	$14,908.56	$12,592.36
Average graduation rate	75.00%	75.72%	88.00%	60.00%	84.00%	76.00%	88.00%
Average placement rate	80.00%	74.65%	77.00%	76.00%	88.00%	92.00%	82.00%
Median loan amount	$7,180.00	$7,847.14	$4,101.11	$11,532.50	$4,989.00	$7,812.25	$7,969.11
Average repayment rate	41.60%	47.65%	59.00%	37.00%	45.73%	51.00%	61.00%

Summary of Practitioner Disciplinary Actions Data

Figure 1 shows the total number of disciplinary actions by state, indicated by black triangles, over the three-year period of 2009 to 2011. It should be considered as a very rough estimate, as it includes both suspensions or license revocations, as well as only penalty fines. It is difficult to verify the accuracy of this data and/or compare states due to the variance on what is considered "disciplinary action." In some states, failure to pay child support, student loan default, or failure to maintain documentation of CEs are all considered grounds for disciplinary action; some actions are published on state websites as part of the public record, while others are kept confidential. In some cases, there were no numbers to report because a state had only recently implemented regulation. In addition, differences between states on reported numbers seem to indicate how actively the individual board pursues disciplinary action, rather than whether more unlawful practice occurs. For example, many

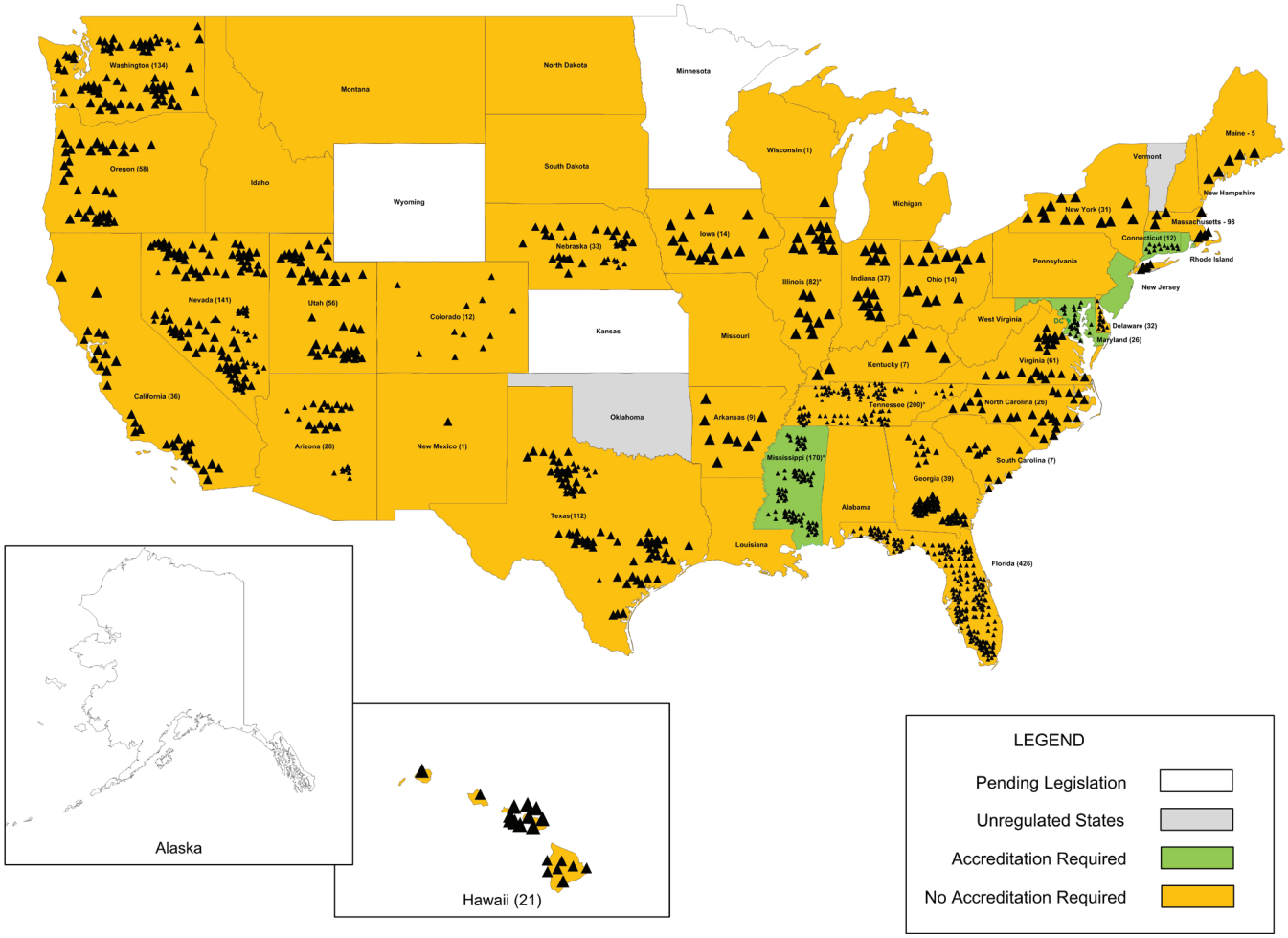

FIGURE 1. Numbers of massage practitioner disciplinary actions 2009-2011, by state.

states showing no actions were contacted by COMTA staff to collect this information, but no actual numbers were able to be obtained, despite more than one attempt. It is likely that the total numbers shown here underrepresent the actual number of serious legal and ethical violations, as these are likely to be underreported to state boards. High numbers of disciplinary actions in a state are usually due to a large number of relatively minor infractions. The state of Mississippi is a good example. Between 2009 and 2011, there were 170 disciplinary actions. Of these, only 6 were ethical violations resulting in suspension or license revocation; the other 164 actions were fines for failing to pass a CE audit.

However, even allowing for measurement error and the confounding effects of population and practitioner density, the magnitude of difference between the total numbers of sanctions against practitioners in regulated states that require graduation from an accredited school versus a nonaccredited school is large. Of the five states and the District of Columbia that require school accreditation, there were 208 sanctions from 2009–2011. Most of these (170) were in Mississippi and 26 were in Maryland. Of the remaining 28 regulated states for which we have data and that do not require school accreditation, there were 1,702 sanctions during the same period. The ratio of disciplinary actions to states is 208:6 versus 1,702:28, or an average of 34 in states that require school accreditation versus 61 in those that do not.

Summary of survey results for massage educators

The survey of massage educators was sent to email distribution lists of the AFMTE (938 possible respondents) and the schools and educators newsletter for the Association of Bodywork and Massage Professionals (4,000 possible respondents), reaching a total of 4,938 possible respondents over a three-week period in February 2013. A follow-up reminder was sent two weeks after the initial email. The survey was also sent to the member schools of the American Massage Therapy Association; however, only one respondent from that organization completed the survey. From the AFMTE weblink, 198 massage educators responded, and 239 from the ABMP weblink, for a total of 438 respondents, a 9% rate of return, which is not unusual for an online survey distributed using this method[18].

Demographic data showed that the majority of respondents (71%) were female, 28% were male, and 2% preferred not to answer. The average age was 51, and the average number of years of experience as a practitioner was 17, with an average of 11 years of experience as an educator. The majority were white/Caucasian (85%), followed by mixed (4%), Latino-Hispanic (2%), Asian (1.5%), and African-American (1%). Five percent of respondents preferred not to answer this question. These results are summarized in Table 3. Respondents were evenly distributed geographically across the US, with no Canadians, and 1% of respondents reported living outside the US or Canada.

The majority of educators reported that 55% teach part-time, 30% teach full-time, and 15% work in administration only and do not teach in the classroom. The majority of respondents teaching part-time work in schools owned by private individuals (51%), as traveling continuing education providers (27%), in corporate-owned schools (22%), community college programs (14%), and online (5%). Those who teach full-time work in schools owned by private individuals (34%), corporate-owned schools (33%), community college programs (25%), as a continuing education provider traveling to different locations (6%), and teaching online (1.4%).

The majority of educators (57%) reported that they maintained at least a part-time practice, with 21% maintaining a full-time practice and 22% reporting no clinical practice. Of those educators with a clinical practice, 75% work in a private practice setting alone or with other massage therapists, 19% in a mobile or onsite setting, and 12% in a spa or salon setting. Sixteen percent work in an integrative setting with health care providers from other disciplines; only 5% work in a hospital or other facility such as rehab or

TABLE 3. Demographic Characteristics of Massage Educator Respondents

Average Age		51 (±10.83)
Years of	Practitioner experience	17 (±6.05)
	Educator experience	11 (±8.19)
Sex	Female	70.80%
	Male	27.50%
	Declined to answer	1.70%
Education	Graduated from high school	7.90%
	Some college	21.90%
	Associate degree	13.20%
	Bachelor degree	34.90%
	Masters degree	19.60%
	Other professional degree (MD, DC, DO, DAOM, etc)	7.20%
	EdD	0.20%
	PhD	2.10%
Ethnicity	African-American	1.10%
	Asian	1.50%
	Caucasian	85.30%
	Latino/Hispanic	1.90%
	Native American or Pacific Islander	0.90%
	Mixed	4.30%
	Declined to answer	5.10%

extended care, and 2% in a community health clinic or free clinic. Figure 2 summarizes these results.

When asked to select necessary competencies educators wanted a massage therapist colleague working in a clinical setting to have, respondents selected the following competencies most often: professional appearance and demeanor (99%); proficiency in applying therapeutic techniques to benefit the patient (97%); good oral and written communication skills (97%); and clinical judgment—ability to modify treatment to the individual patient (96%). Patient intake interviewing skills (94%) and therapeutic relationship skills (94%) were valued equally. Also frequently selected were interprofessional collaboration (90.5%), ability to develop a treatment plan (90%), and ability to assess treatment outcomes (86.5%). Research literacy was selected by almost half of all respondents (48%), and advanced or specialized training in orthopedic or rehabilitation massage was deemed necessary by 43% of respondents. Least frequently selected competencies considered necessary were other advanced or specialized trainings in oncology massage (15%), geriatric massage (18%), pre- and perinatal massage (19.5%), and other competency or advanced training (23%). When asked to describe these, groups of techniques such as Swedish and Eastern or individual techniques such as myofascial release were specified. Only 25% selected familiarity with electronic medical records and 36.5% selected advanced or specialized training in medically oriented massage as a necessary competence.

In choosing a personal massage therapist to see oneself, the pattern of competencies considered necessary was similar, with general competencies selected more often, and advanced or specialized training in working with specific populations selected less often. However, the necessary competencies for colleagues working in a clinical setting were selected 5%–10% more often compared to one's own personal therapist, and interprofessional collaboration was selected almost 30% less often. The exceptions to this trend were advanced or specialized training in orthopedic or rehabilitation massage, and advanced or specialized training in other medically oriented massage, where massage educators selected these as frequently or slightly more frequently. Complete results are presented in Table 4.

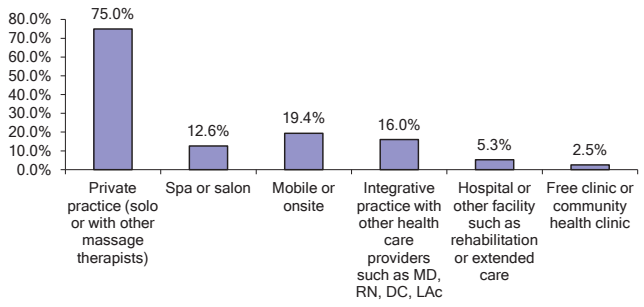

Figure 2. Clinical practice settings of massage educator respondents.

In making a referral to a massage therapist for their own patients or colleagues, the most important factor was personal knowledge or direct experience with the practitioner, followed by a state-recognized credential to practice, and word-of-mouth recommendation from a respected source. The least important factors were the practitioner's amount of academic education, which massage school the practitioner attended, and

Table 4. Massage Educators' Opinions on Necessary Competencies for Massage Therapists in Different Roles

Necessary Competencies for a Massage Therapist To Have:	*As a Colleague Working in a Clinical Setting*	*As One's Own Personal Therapist*
Professional appearance and demeanor	98.6%	93.7%
Good oral and written communication skills	96.7%	90.6%
Interprofessional collaboration or ability to work as part of a team	90.6%	62.5%
Patient intake interviewing skills	93.9%	87%
Therapeutic relationship skills	93.9%	89.9%
Ability to develop a treatment plan	90.1%	80.2%
Proficiency in applying therapeutic techniques to benefit the patient	96.7%	94.4%
Clinical judgment—ability to modify treatment to the individual patient	96.2%	93%
Ability to assess treatment outcomes	86.6%	79.8%
Research literacy—ability to find and critically evaluate relevant health care research	48.1%	38.9%
Familiarity with electronic medical records or charting	24.8%	15.3%
Advanced or specialized training in pre/peri-natal massage	19.8%	7.9%
Advanced or specialized training in geriatric massage	17.9%	7.6%
Advanced or specialized training in oncology massage	15.6%	6.1%
Advanced or specialized training in orthopedic or rehabilitation massage	43.4%	47.4%
Advanced or specialized training in other medically-oriented massage	36.8%	38.4%
Other competency or advanced training (please describe)	22.9%	23.8%

their amount of continuing education. Somewhat important were the number of years in practice and the general reputation or having heard of the practitioner.

When asked for their opinion of the current quality of massage education nationally, 75% of respondents stated that the quality is inconsistent, and 55.7% agreed that quality needs to improve if massage therapists want to be considered comparable to other allied health professionals such as physical therapy assistants. Only 10% agreed that quality is adequate. Complete results are presented in Table 5.

Comments for this question were often critical of current massage education quality but diverged regarding how to address it. One respondent commented that "I believe the medical community will continue to shut us out unless we step up our abilities to meet them in the clinical world." Another stated that "I believe the profession needs to require academic degrees, but I believe that this is an idea ahead of its time," and that "massage education is outdated. It needs to revamp into the 21st century; ethics, conduct, working with diverse populations, communication—for today's consumer!" Another respondent held an opposing opinion about how to improve the quality of education, noting that: "The quality is generally poor and getting worse. Most efforts to "improve" it are focused on cognitive learning that is largely irrelevant to the practice of massage. Stethoscope envy has us focused on the ridiculous goal of becoming accepted by the scandalous allopathic model of sickness maintenance. The nature of the questions and responses in this survey leave me little hope for it's [sic] future. I fear genuinely gifted massage practitioners will soon be driven back underground as they have been traditionally throughout history. What a shameful price to pay for the popularity of this approach to healing!"

When asked if the quality of massage education needs to be improved, 86% said "Yes", 4.6% said "No", and 9% answered "I don't know." When asked what needed to be changed to improve the quality of massage education, better teacher training was the most popular response (66%). Complete responses are shown in Table 6 below.

Typical comments for this question emphasized competency-based education, along with fundamental knowledge and skills, and included:

> "Competency based education. Greater emphasis on critical thinking and reasoning."
>
> "Uniformity between states, practical exam for all, minimum educational competencies—not just hours."
>
> "More educational hours on A&P, Pathology, and developing a treatment plan for individual clients."
>
> "Not necessarily more hours, but better hours on communication and other skills. The academically based program that I envision would be voluntary, not mandatory. No cycling MT students into a program without appropriate prereqs or prep. Skills-based education rather than hours-based."
>
> "More hands on hours & internship. 50% of the hours should be hands on. I have seen schools that emphasis [sic] academics and therapists come out with poor hands-on skills while schools that do not emphasis academics have better hands on but lack ability to understand how & why massage is helpful for the patient."

Comments also pointed out that not all therapists want to work in health care settings, and proposed a two-tiered level of education: "Again, I am not sure that it needs to be improved until we decide as a profession what we want a beginning student to know. Actually I think we should do as many professionals do and have different levels of education depending where the therapist wants to work...like LPN or RN, PTA or PT...and so on. While I would love to have all students want to really expand themselves, the truth is a lot of students want to only practice stress relieving

Table 5. Massage Educators' Opinions on the Current Quality of Massage Education

I don't have an opinion	3.41%
The quality is generally poor	18.18%
The quality is adequate as it is now	10%
The quality is generally excellent	5.45%
The quality is inconsistent	75.23%
The quality trains practitioners very well to work in a variety of settings	7.73%
The quality trains practitioners very well to work as skilled healthcare professionals	5%
The quality needs to improve if massage therapists want to be considered comparable to other conventional allied health care professionals, such as physical therapy assistants	55.68%

Table 6. Massage Educators' Opinions on What Is Needed to Improve Educational Quality

Longer program time	37.82%
Better teacher training	65.99%
Academically-based program with recognized degree, such as a bachelor or masters	27.66%
More time developing psychosocial and communication skills	47.46%
Interprofessional education (taking courses with students from other health professions)	25.13%
Require a semester of practicum or internship placement, working with supervision in a clinical setting	41.62%
Other (please describe)	36.55%

massage...and what a gift to mankind! I don't want to lose that in our quest to be medical wannabes... because if we are going to work in hospitals and think we are going to get paid for the work we do, we are going to need to look at massage in an entire different light."

In terms of the role of accreditation, 50% of massage educators believe that accreditation does improve the quality of massage education, 36% believe it doesn't, and 14% don't know. Forty-one percent (41%) believe that program accreditation specific to massage therapy is superior to general institutional accreditation that does not specify curriculum competencies for massage therapy, while 31.6% think it is not superior and 27% don't know. Comments pointed out that, while accreditation can help improve quality of education by outlining standards for curriculum content, it can also have negative consequences through poor implementation and its use as a means to qualify for large amounts of Federal financial aid. Several respondents cited corporate schools as an example of poorer quality education prone to abuse of financial aid, stating for example, that "corporate schools are only looking for money." Other comments were very critical of the lack of quality in corporate programs: "Most of the graduates from career schools/corporate schools don't have the quality education that is found at private schools. Since most graduates come from the corp/career schools, the quality there needs improving greatly. Cost does not equal quality in those schools. For the best training, massage therapists need to attend private schools, where the school personnel truly care about helping them be the best massage therapists, rather than the only focus being on the student's money. Corp/career schools can't keep instructors, turnover is a huge issue, they pass students with a grade of 60 (really?), and the instructors who do teach there are not qualified to teach most of the subjects. There are quality programs out there, most are at private, smaller schools. That is why the massage therapists from the private schools are in such demand."

A large number (112) of respondents wrote detailed and varied comments about what they believe is necessary to improve the quality of massage education. Overall, most comments were supportive of massage education becoming more academically based, for accreditation that is specific to massage therapy and bodywork, and accreditation that is competency-based. Some called specifically for degree-based programs, as well as for increasing student admission requirements beyond having a high school diploma or GED. However, several respondents cautioned against raising academic standards at the expense of developing students' hands-on skills. Some typical comments:

> "More pathology; more rehab skills as in Canada; clinical thinking skills and ability to articulate decision making."

> "Competency based education; Greater emphasis on critical thinking and reasoning."

> "More equal emphasis and teaching of the art as well as the science (however challenging that may be, it is very important)."

One respondent went further, stating: "This should really NOT be a discussion about the quality of education but about strategically organizing massage education as a whole in the U.S. With 250 modalities available and multiple submarkets in the massage field, there is definitely room to start discussing the implementation of an Associate Degree as a minimum standard and a Bachelor Degree in Massage Therapy as a goal for 2020, making sure that there is a smooth transition to an even-higher standard."

Summary of Survey Results for CIHC Educators

Members of CACHIM (1073) and ACCAHC (204) were sent individual emails by their respective executive directors for a total of 1,277 possible respondents. Follow-up reminders were sent two weeks after the initial email request to participate. Of the total possible respondents, 145 or 11% completed the survey, a typical rate of return for an online survey.

Of those, 25% identified their primary discipline as medicine or integrative medicine, 10% as acupuncture/Oriental medicine, 6% as nursing, and 4% as chiropractic. Other professions represented included psychology/counseling/social work, yoga therapy, physical therapy, naturopathic medicine, ayurvedic medicine, homeopathy, nutrition, and dance/movement therapy. Roughly 20% selected "Other" and described their primary discipline as medical education, occupational therapy, and research. A surprisingly large number of respondents (32%) identified their primary discipline as massage therapy/bodywork/somatic education, perhaps due to the number of massage educators within ACCAHC. Results were filtered to exclude those identifying massage therapy as their primary discipline, and only the results of the 97 non-MTs respondents are reported, in an effort to distinguish the views of non-massage therapy educators separate from those of massage therapy educators.

In terms of respondent demographics, 69% were female, 29% were male, and 2% preferred not to answer. The average age of respondents was 50 (± 11), and the majority were white/Caucasian (73%), followed by Asian (12%), mixed (5%), African-American (2%), and Latino-Hispanic (3%). Approximately 4% of respondents preferred not to answer. These results, together with respondents' disciplines, are summarized in Table 7. Respondents were evenly distributed geographically across the US, with a small number (6%) of Canadians.

The average number of years working in education was 16.86 (± 11.35), and 78% maintain either

a part-time (40%) or full-time (34%) clinical practice in addition to their educational role. Practice characteristics showed fewer respondents in private practice settings compared to massage educators, with the majority practicing in hospitals or similar settings. These results are summarized in Figure 3. Twenty percent (20%) reported that they currently teach full-time, 58% currently teach part-time, and 23% serve in administrative positions and do not currently teach.

The majority of respondents consider themselves at least somewhat knowledgeable about massage education (38%), with 24% rating themselves as moderately knowledgeable, and 22% as very knowledgeable. Only 16% rated themselves as not at all knowledgeable regarding massage education.

TABLE 7. Demographic Characteristics of CIHC Educator Respondents

Average age		50 (±11.13)
Sex	Female	69.10%
	Male	28.90%
	Declined to answer	2.10%
Discipline	Acupuncture/DAOM	14.40%
	Ayurvedic medicine	2.10%
	Chiropractic	6.20%
	Homeopathy	1.00%
	Integrative medicine or medicine	37.10%
	Naturopathy	3.10%
	Nursing	8.20%
	Osteopathy	1.00%
	Psychology/social work	3.10%
	Yoga therapy	2.10%
Ethnicity	African-American	2.10%
	Asian	11.50%
	Caucasian	72.90%
	Latino/Hispanic	3.10%
	Native American or Pacific Islander	1%
	Mixed	5.20%
	Declined to answer	4.20%

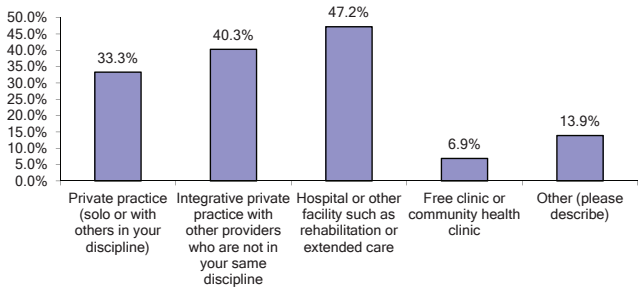

FIGURE 3. Clinical practice settings of CIHC respondents.

Respondents were then asked a series of question about what competencies they considered necessary for a massage therapist serving in different roles: as a colleague or peer practicing in a clinical setting, or as one's personal massage therapist providing services for the CIHC educator/practitioner. Respondents were allowed to select as many competencies as they felt were required for that role. Respondents were then asked what factors they considered most important in choosing a practitioner to whom they would want to refer their own patients or clients for massage therapy. All answer choices were developed based on responses from previous individual and focus group interviews with both massage and CIHC educators, and included an optional section for comments.

The most frequently selected competencies considered necessary for massage therapist colleagues to have included: clinical judgment—ability to modify treatment to the individual patient (96%); interprofessional collaboration or ability to work as part of a team (96%); professional appearance and demeanor (94%); and good oral and written communication skills (92%). Therapeutic relationship skills (93.5%) were selected almost as often as proficiency in applying therapeutic techniques to benefit the patient (92.4%). Ability to assess treatment outcomes (88%), ability to develop a treatment plan (85%), and intake interviewing skills (83%) were also frequently rated necessary. Research literacy—ability to find and critically evaluate relevant health care research (52.2%)—and familiarity with electronic medical recording or charting (51.1%) were considered necessary less frequently.

Competencies with the lowest frequencies included advanced or specialized training in areas such as geriatric massage (15%), pre- and perinatal massage (21%), oncology massage (25%), orthopedic or rehabilitation massage (36%), and other medically oriented massage (38%). A possible explanation for the advanced/specialized training areas selected less frequently as necessary was noted in many of the comments for this question—respondents thought that only therapists working in a clinical setting with these specific populations needed to possess such specialized training. As one respondent put it: "I would like someone I call "colleague" to have advanced training for whatever population they were working with—for me that happens to be oncology. It wouldn't be as relevant if they worked in the clinic on a lot of postsurgery (not oncology surgery specifically). So, I mean to indicate advanced training if they are working with special populations. Otherwise, that seems unprofessional and I wouldn't want to refer to them as a colleague." Comments also indicated that many respondents viewed ongoing continuing education to develop new skills as a necessity for professional development, and something they would expect of any peer or colleague.

In choosing a therapist to see for oneself as a client or patient, the competencies that CIHC educators chose followed a similar pattern, with general competencies selected more often and specific competencies such as working with various special populations selected less often. Overall, the same competencies judged as necessary for a colleague in a clinical setting were chosen less often for one's personal therapist. Competencies most often selected as necessary were professional appearance and demeanor (89%), weighted equally with clinical judgment and proficiency in applying therapeutic techniques (89%). Therapeutic relationship skills (88%), good oral and written communication skills (71%), ability to assess treatment outcomes (71%), ability to develop a treatment plan (67%), and intake interviewing skills (60%) were also frequently identified. The least frequently selected competencies for one's personal therapist were advanced/specialized training in oncology massage, pre- and perinatal massage, and geriatric massage (6.5%), followed by familiarity with electronic medical records or charting (16%), and advanced/specialized training in other medically oriented massage (24%). About a quarter of respondents selected advanced/specialized training in orthopedic or rehabilitation massage as necessary (26%), and research literacy (24%) as a necessary competency for one's own therapist. One respondent commented: "As a basically healthy person who generally seeks massage for basic support and rest, I want a therapist who can listen, be present and pay attention to what he/she feels in my tissue while working with me. I appreciate advanced training for what it seems to say about a practitioner's commitment to his/her development." Or, as another respondent put it simply: "Knows how to give a good massage." Complete results are presented in Table 8.

Generally, CIHC educators considered the same competencies as necessary at almost the same frequency as massage educators, usually within 5%. Intake interviewing skills and ability to develop a treatment plan were listed slightly more often by massage educators, while familiarity with electronic medical records or charting was listed twice as frequently by CIHC educators compared to massage educators. A comparison of the necessary competencies to consider a massage therapist as a peer or colleague in a clinical setting by massage and CIHC educators is presented in Table 9.

Respondents were then asked to rank the factors they considered most important in choosing a therapist to whom they would refer their own patients or clients. The most highly ranked factor was direct knowledge or personal experience of an individual therapist. A word-of-mouth recommendation from others they respect was the next most highly ranked, followed by a state-recognized credential to practice. Number of years in practice was also considered important, but secondary to the previous factors, as was the practitioner's general reputation. Educational factors, such as which massage school the therapist attended and amount of academic and continuing education, were rated as the least important factors.

Respondents were asked their opinion regarding the current quality of massage education nationally. The majority (58%) agreed that the quality is inconsistent. Complete results are presented in Table 10 and are contrasted with massage educators' opinions. While both groups are in agreement that quality needs to be improved, more massage educators believe that current quality is inconsistent and needs to be improved if MTs want to be considered comparable to other allied health professionals. Typical comments from CIHC educators in response to this question included:

> "There are more MT education facilities, but what I hear from my clients is that many experiences have been sub-par and nonspecific."

Table 8. CIHC Educators' Opinions of Necessary MT Competencies in Different Roles

Necessary Competencies for an MT To Have:	*As a Colleague*	*As One's Personal Therapist*
Professional appearance and demeanor	93.5%	89.1%
Good oral and written communication skills	92.4%	70.7%
Interprofessional collaboration or ability to work as part of a team	95.7%	46.7%
Patient intake interviewing skills	82.6%	59.8%
Therapeutic relationship skills	93.5%	88%
Ability to develop a treatment plan	84.8%	67.4%
Proficiency in applying therapeutic techniques to benefit the patient	92.4%	89.1%
Clinical judgment—ability to modify treatment to the individual patient	95.7%	89.1%
Ability to assess treatment outcomes	88.0%	70.7%
Research literacy—ability to find and critically evaluate relevant health care research	52.2%	23.8%
Familiarity with electronic medical records or charting	51.1%	16.3
Advanced or specialized training in pre/peri-natal massage	20.7%	6.5%
Advanced or specialized training in geriatric massage	15.2%	6.5%
Advanced or specialized training in oncology massage	25.0%	6.5%
Advanced or specialized training in orthopedic or rehabilitation massage	35.9%	26.1%
Advanced or specialized training in other medically-oriented massage	38.0%	23.9%
Other competency or advanced training	18.5%	15.2%

Table 9. Necessary Competencies to Consider a Massage Therapist as a Colleague by Educator Group

Necessary Competencies for an MT To Be Considered as a Colleague By:	*CIHC Educators*	*Massage Educators*
Professional appearance and demeanor	93.5%	98.6%
Good oral and written communication skills	92.4%	96.7%
Interprofessional collaboration or ability to work as part of a team	95.7%	90.6%
Patient intake interviewing skills	82.6%	93.9%
Therapeutic relationship skills	93.5%	93.9%
Ability to develop a treatment plan	84.8%	90.1%
Proficiency in applying therapeutic techniques to benefit the patient	92.4%	96.7%
Clinical judgment--ability to modify treatment to the individual patient	95.7%	96.2%
Ability to assess treatment outcomes	88.0%	86.6%
Research literacy--ability to find and critically evaluate relevant health care research	52.2%	48.1%
Familiarity with electronic medical records or charting	51.1%	24.8%
Advanced or specialized training in pre/peri-natal massage	20.7%	19.8%
Advanced or specialized training in geriatric massage	15.2%	17.9%
Advanced or specialized training in oncology massage	25.0%	15.6%
Advanced or specialized training in orthopedic or rehabilitation massage	35.9%	43.4%
Advanced or specialized training in other medically-oriented massage	38.0%	36.8%
Other competency or advanced training	18.5%	2.29%

> "The requirements for admission to programs might need to be higher."
>
> "I have worked with incredibly skilled, incredibly knowledgeable, advanced practice LMTs who practice medical massage therapy. But I do not believe they are the norm as far as licensing, credentialing, continuing professional development."
>
> "With the direction of massage therapy being integrated into more clinical environments, such as hospitals and medical clinics, the overall/general education of massage therapists is vastly inadequate. The demand for massage therapists with higher levels of clinical training far exceeds the number of qualified caregivers."
>
> "Too much fluff and buff and too little therapy. Needs more awareness of massage as a body-mind-spirit intervention in which the client becomes an active partner in the therapeutic endeavor. Also needs more awareness of the body as metaphor and the clinical implications of that model."

Table 10. CIHC Educators' Opinions of the Quality of Massage Therapy Education, Compared to MT Educators

	CIHC Educators	*MT Educators*
I don't have an opinion	22.14%	3.41%
The quality is generally poor	7.63%	18.18%
The quality is adequate as it is now	8.40%	10%
The quality is generally excellent	5.34%	5.45%
The quality is inconsistent	58.02%	75.23%
The quality trains practitioners very well to work in a variety of settings	9.16%	7.73%
The quality trains practitioners very well to work as skilled healthcare professionals	2.29%	5%
The quality needs to improve if massage therapists want to be considered comparable to other conventional allied health care professionals, such as physical therapy assistants	39.69%	55.68%

In response to the question, "Do you think that the quality of massage education needs to be improved for massage therapists to be seen as comparable to other complementary or integrative health care professionals, such as acupuncturists?", 61% of respondents answered "Yes", 8% answered "No", and 31% answered "I don't know." Some comments specifically pointed out that the lack of consistency in education is a problem:

> "The inconsistency of massage education and licensing requirements makes it hard to evaluate massage as a single profession."
>
> "Some schools are very high quality. It would be good to have more uniformity."
>
> "Consistency of massage education, perhaps."

Respondents also commented that other providers need to be better educated about massage therapy, and that massage education should teach enough pathology to recognize more serious conditions that require referral:

> "What will make a difference is education of health professionals on effectiveness of massage for medical conditions—also improved interdisciplinary communication is what is necessary in order to become part of established conventional care."
>
> "More diagnostic classes need to be taught for massage therapists to be able to recognize potential

disease processes for referral to other medical specialties if the massage therapist wants to be on par with other medical professions."

Respondents who commented on this question generally endorsed the idea of more academically based education and higher admissions standards. Some, however, were more cautious in their responses. One said: "It depends who you ask. Do massage therapists want to be seen as such? Most likely some do, and they will be the ones pushing for this. However, some don't, and they might not care. I am not saying improving education is bad or good, I am suggesting that not all massage therapists want to be seen in that medical light."

Those who responded "Yes" to the previous question were then asked to specify what would improve the quality of massage education, and these responses are presented and compared to those of massage educators in Table 11. In almost all areas listed, a larger percentage of CIHC educators agreed that these actions would improve quality, compared to massage educators. The largest differences were interprofessional education, supervised internship or practicum placements, and academically based programs. The only area of agreement was more time to develop psychosocial and communication skills. Other responses covered a variety of topics, from anatomy to cultural competence, and included:

"More whole body systems interconnectedness, more disease-specific/etiology driven, organ-specific protocols, mind-body medicine skills, energy medicine, and therapeutic counseling skills."

"Program entry requirements other than age 18 and a credit card. Even nursing, PTA, and OTA programs have prerequisites."

Table 11. CIHC Educators' Opinions on What Would Improve the Quality of Massage Education, Compared to Massage Educators

	CIHC Educators	*Massage Educators*
Longer program time	47.96%	38%
Better teacher training	50%	65.8%
Academically-based program with recognized degree, such as a bachelor or masters	53.06%	27.6%
More time developing psychosocial and communication skills	50%	47.6%
Interprofessional education	56.12%	25.3%
Require a semester of practicum or internship placement, working with supervision in a clinical setting	70.41%	41.8%
Other (please describe)	29.59%	36.5%

"Improve education about primary anatomy and physiology. Integrate across musculoskeletal and meridian systems and connective tissue and neurology."

"No practice can be specifically = to another. In my opinion, the public has more confidence when they see/are aware of an academic degree (whether or not necessary). Consistency in thorough education in A&P, Kinesiology, empathetic communication, clear documentation skills, and activity analysis are all necessary for a comprehensive, effective massage therapy session."

"With the psychosocial and communication skills, a consistent education of culture and the diversity of our nation. My academic background in cultural, social and developmental psychology has served me well and often in the hospital and oncology setting. I've seen other providers, usually new, flounder with ignorance working with multi-cultural patients (i.e., so much prejudice against Muslims or assuming Pakistanis are from India, etc.). Better teaching training. I look good on paper for massage and teaching—having taught university and practiced massage. Teaching massage is very different! Maybe ongoing staff trainings, also including cultural education. When I taught massage, a revered teacher was making the assumption that those who might identify as African-American or black, were inherently less smart because their (her students) communication skills were not like hers. This came out in a teacher development day."

Regarding accreditation of massage education, 54% of CIHC respondents believe that accreditation generally improves the quality of massage education, with 9% answering "No" and 37% responding "I don't know." However, the majority of respondents were unaware of the difference between programmatic versus school or institutional accreditation. When asked whether programmatic accreditation specific to massage therapy was superior to general institutional accreditation that does not specify curriculum competencies for massage therapy, more than half of respondents, 53%, answered "I don't know." Forty percent answered "Yes" and 8% of respondents answered "No."

Final comments from CIHC educators on what is needed to improve quality of massage education included suggestions regarding accreditation and specific curriculum content:

"The organization who is in charge of the massage education should ensure the quality of the massage schools."

"Most accreditation is not so important because it is not massage specific enough. Good, in-depth accreditation could make a real difference."

"Accreditation is an expensive process. Some schools will go with whatever program will accredit them at the less expensive price. Quality of education then suffers, in my opinion. Also, most schools have low requirements. Every new graduate of a massage therapy program would benefit from mentoring upon graduation. Every single one."

"Massage therapists are working in hospitals caring for the suffering of many seriously ill patients. They need training and confidence to work effectively and safely with these patients and their family caregivers, and they need to act professionally and learn to work as a part of an interdisciplinary medical team. Massage therapists no longer only work in spas and health clubs and the education needs to reflect this change in modality application."

"I'm aware of a well established, 750+ hr requirement, "nationally recognized" school that produces MTs that can't provide a good, general massage for a healthy client. And, I know small schools with lower hourly requirements that produce excellent practitioners. I hope we remember to focus on quality first and foremost, not quantity for quantity's sake... One grad of the first type is actually very angry that she went through 750 hours, got her CMT and was told by several potential employers that she just doesn't have the basic skills. And as I know her, she is not a "bad" student or disengaged learner... just poor instruction and little to no clinical feedback."

DISCUSSION

The quantitative results on educational outcomes presented here can only be considered an approximation, due to the different ways that schools are allowed to report their numbers to their respective accrediting agencies and to the Department of Education. Graduation rates and job placement rates, in particular, are likely be optimistic estimates, as most programs have a direct incentive to 'massage the data' to have these numbers appear in the best possible light. The financial aid data, especially loan repayment rates, probably paint a more realistic picture. The ability to repay student loans indirectly indicates that a graduate is employed, but whether they are employed as a massage therapist and making a living wage is unknown.

The majority of the schools included in this analysis participate in Title IV. Schools that do not participate in Title IV are not required to publish gainful employment rates or other related information, and many do not provide this information on their websites. Some schools provided data on one or more outcomes, but not all outcomes of interest. Data from non-accredited programs are difficult to obtain and could not be included. Thus, the results presented here may not be representative of all US massage schools/programs, particularly for non-accredited schools and programs that graduate fewer than 30 students annually, and so these numbers should be interpreted cautiously.

Based on the available data, the average tuition cost for a massage program nationally is $13,605 and this cost varies a great deal, depending on the type and length of the program. The national average loan repayment rate is only 43.4%, indicating that more than half of massage program graduates have difficulty repaying their student loans.

In comparison, the average tuition cost of corporate programs ($16,561.77) is higher than the national average, and these programs had a relatively high median loan burden of $9,998.85, with the lowest repayment rate (41.3%). Average tuition costs at all other for-profit schools are somewhat lower ($13,505.24), with a slightly lower median loan burden of $8,228.05 and slightly higher repayment rate of 46.7%. Tuition costs at community colleges ($5,647.05) are considerably lower than the national average, and these programs show the lowest median loan burden ($2,004.06). No repayment rate data were available for community college programs; however, the relatively low loan burden makes it more likely that repayment rates are higher than those for corporate and for-profit programs. Programs with the highest average repayment rate (83.45%) are those based in CAM universities. These have a lower average tuition cost of $10,768.40, with a median loan burden of $9,871.75, which is comparable to the loan burden of corporate programs, but a repayment rate that is almost double. By these metrics, community college and CAM university-based programs appear to offer the best value for cost, followed by for-profit programs. Overall, corporate programs appear to offer the least value for cost.

Data analysis of tuition costs and educational outcomes shows that some accreditation organizations have poorer outcomes than others. Tuition costs at ACICS-accredited massage schools have the highest average tuition cost ($18,581.28) and highest median loan burden ($11,532.50), with the lowest repayment rate (39%), which appears to indicate poor value for cost. Tuition costs at schools accredited by other organizations have fairly comparable costs, with NACCAS-accredited schools showing relatively lower average tuition cost ($9,253.98) and a relatively higher repayment rate of 59%. Programs accredited through COMTA have the highest repayment rate (61.00%) with a moderate average tuition cost of $12,592.36, slightly below the national

average overall and below the average cost of non-corporate for-profit schools. The median loan burden for graduates of COMTA programs is almost twice as high ($7,969.11), compared to graduates of NACCAS programs ($4,101.11), yet their repayment rate is comparable. By these metrics, COMTA-accredited schools and programs appear to offer the best value for cost. These results also suggest that programmatic accreditation offers good value for cost, compared to institutional accreditation.

Accreditation in general appears to make some difference in the numbers of practitioner disciplinary actions. Despite some probable measurement error, among the regulated states there are substantially more actions—the average number of disciplinary actions to states is almost twice as many—against providers in states that do not require graduation from an accredited school compared to those that do. Even taking error and confounding into account, school accreditation still appears to be moderately correlated with fewer practitioner sanctions. More research is needed to confirm these preliminary findings.

Both massage and CIHC educators can be considered highly informed consumers of massage therapy. It is interesting to see that both groups have different expectations regarding the competencies considered necessary for massage therapists that depend on the role of the therapist and practice setting. There is substantial agreement between massage educators and other complementary and integrative health care educators regarding the competencies each group considers necessary to see a massage therapist as a colleague or peer, and separately in the role of one's own personal therapist. Advanced level competencies in specialty areas of practice are considered less important than general competencies overall, by both groups. But, while CIHC educators selected these much less frequently, from their comments it is clear that they assume and expect that someone working with a particular population, such as oncology patients, orthopedic patients, or geriatric and pediatric patients in a clinical setting, should have specific training and/or credentialing in these areas, just as they assume all massage therapists are credentialed to practice in their state, an assumption which surfaced during many of the initial interviews.

It is not surprising that each group is willing to accept a lesser degree of competency in some areas that may not be applicable to them on an individual level, as long as the therapist is generally proficient and can give a massage that is satisfying to the individual client. One area of notable disagreement between the two educator groups is familiarity with electronic medical records or charting records. Along with interprofessional collaboration and research literacy skills, programs that aim to prepare massage therapists to work in clinical health care settings would do well to include these in the curriculum. Interprofessional practice and education is a growing trend in US health care, particularly in the management of common chronic conditions, and massage educators should take heed.

Massage educators appear to have a more negative view of the inconsistency of massage education compared to CIHC educators, as higher percentages of massage educators agreed that the quality is both poor and inconsistent, and that it needs to improve to be seen as comparable to other allied health providers. However, a higher percentage of CIHC educators had no opinion about the quality of massage education, which could account for this difference. Given that educational quality is perceived as so variable, it is not surprising that personal experience or direct knowledge of a practitioner is the single most important factor in choosing a therapist for most respondents, whether they are massage or CIHC educators.

Despite their more negative perception of the quality of massage education, massage educators do not agree with CIHC educators about what is needed to improve quality. More CIHC educators agreed that longer program time, more academically based programs, more interprofessional education, and a requirement of supervised internships or practicum placements would improve quality, compared to massage educators. The comments of massage educators showed a good deal of support for these means of improving educational quality, as long as the wellness and 'mind-body-spirit' orientation of massage therapy is maintained, together with an emphasis on proficiency in practical application—being able to give a 'good' massage. Both groups suggested that raising admission requirements to massage programs is a necessary step in improving quality. Massage educators' comments also appear to support competency-based educational standards, rather than an hours-based standard.

There is a current trend across all sectors of postsecondary education to view education as a commodity[19], and much has been written about the corporatization of higher education in recent years. Massage therapy education is no exception, as evidenced by the increased number of corporate-owned chains of massage schools and programs within career and technical school chains over the past 15 years, even though their rapid growth has slowed somewhat since the Great Recession of 2008. Some would argue that massage therapy itself has become a commodity, based on the rise of franchises that offer reduced rates for consumers, and the development of discounted provider networks such as American Specialty Health, that offer reduced reimbursement to providers in exchange for referrals. From this perspective, massage therapy and massage therapy education are arguably victims of their own success.

Clearly, based on the data presented here, the quality of massage education in the United States is inconsistent and inadequate, whether it is assessed quantitatively or qualitatively. This inconsistent

quality undermines the integrity and perceived value of massage therapy education and, consequently, the integrity and value of massage therapy as a profession. Integrity is jeopardized when any educational provider or massage practitioner performs or is perceived to perform poorly, raising concerns about the quality of training offered by all educational providers. If the educational process that produces massage practitioners is unreliable, then the reputation of all practitioners is damaged by those who complete an educational program, pass a qualifying examination and become credentialed to practice, and yet cannot perform a massage to the satisfaction of the consumer. The current changes that are rapidly happening in the larger health care landscape hold tremendous opportunities for massage therapy as a discipline. At the same time, unless educational and regulatory standards can evolve to keep pace, massage therapists who wish to practice as integrative health care providers are at high risk of being shut out of these opportunities.

CONCLUSIONS & RECOMMENDATIONS

Returning to the original questions that framed this evaluation, we can conclude that accreditation does improve the quality of massage education and, at the same time, that there is much room for improvement. Knowledgeable and experienced educators both inside and outside the massage profession are in agreement on this point. COMTA accreditation, in particular, does appear to offer better value for cost, compared to other accreditation organizations that do not require curriculum competencies specific to massage therapy. Adding competencies at an advanced level would be helpful to some extent in advancing the perception and status of massage therapy in the eyes of other conventional and integrative health care professions. However, raising admission requirements to massage programs, moving to longer and more academically based programs, including degree programs, and requiring supervised clinical internships or practicum placements would be more effective in raising the perceived quality of massage education. Including more interprofessional education, such as the skills needed for interprofessional practice and for using electronic medical records and charting, along with research literacy skills, are necessary from the viewpoint of CIHC educators, but are not equally valued by massage educators.

The data suggest several recommendations for improving the quality of massage education. One is that data on ethical and legal violations of massage therapy standards of practice should be compiled according to consistent criteria and maintained in a single registry that includes information on the practitioner's training institution, to facilitate accurate recordkeeping and future research. Ideally, this registry would be maintained by an umbrella organization, such as the Federation of State Massage Therapy Boards. If accreditation does indeed reduce ethical violations by practitioners, then any credentialing examination should require graduation from an accredited school or program to sit for the examination.

Another recommendation is that massage programs consider raising admissions requirements to include two years of college or other vocational education, a recommendation made by many respondents in both the massage and CIHC educator groups surveyed. Only 10% of current AMTA-affiliated massage therapists list a high school diploma as their highest level of education, according to the most recent AMTA survey[12]. Sixty-five percent report 'some college' or higher, although it is certainly possible that some of those respondents are counting their massage training as 'some college'. Currently, 30% report completing a bachelor's degree. It would be interesting to see to what extent academic education is correlated with income from massage and/or career longevity, and what other characteristics leading to career success could be identified through additional education research. Such research might also specify useful criteria for admission to massage programs.

Proprietary schools might consider developing articulation agreements with a community college or even a four-year, bachelor-level program. This strategy could allow smaller proprietary schools to partner, rather than compete, with community college programs, while still maintaining high standards of hands-on training and a whole-person philosophy of practice. Through such agreements, community colleges could provide access to remedial education for massage therapy students who lack sufficient reading, writing, and math skills. Community-based partnerships to develop supervised clinical internships or practicum placements should also be explored, as well as ways to create career paths for full-time massage therapy educators who have training in adult education. Massage educators might consider joining forces to create cooperative nonprofit schools where they could be salaried employees with benefits, as opposed to part-time contingent faculty. Teaching is a separate skill set from clinical practice, and being proficient as a practitioner does not automatically make someone a competent educator, even to teach clinical, hands-on skills.

The US Department of Education recently proposed revisions to how gainful employment data will be calculated and used to qualify institutions for offering Federal financial aid. How this will affect massage schools and programs, especially proprietary schools, remains to be seen. One step that would be helpful is for massage programs to reach consensus on how to measure graduation and job placement rates, and do this consistently so that more accurate comparisons can be made. Ideally, this information would be compiled and maintained by a massage-related organization with no actual or perceived conflict of interest in any individual or group of programs. Compiling and maintaining this

data would facilitate educational research to track the longer term outcomes of massage programs. Such research can determine what factors contribute to practitioner success, satisfaction, and career longevity, and is very badly needed by the profession.

As Dew[5] points out, the term 'quality' is often used in a dual sense, to refer not only to meeting basic requirements, but also to process improvement—the pursuit of excellence. The concept of total quality management encompasses process improvement across all aspects of delivering a service or product. Massage therapy as a discipline appears to be evolving in the direction of raising its basic educational requirements, as demonstrated by the recent ELAP and NTESP projects. While specifying learning objectives and recommending the number of hours needed to teach particular subject areas are useful, a competency-based education standard is a better method to ensure that students have mastered a body of knowledge and can demonstrate sufficient skill in applying what they have learned. Accreditation based on a curriculum that is specific to massage therapy and that requires ongoing assessment and demonstration of competency seems like common sense, not only to meet basic requirements, but also as a means to encourage the pursuit of educational excellence. Applying teacher competency standards to accreditation supports both aims, as well.

The recommendations presented here will obviously require cooperation among educational and regulatory bodies, funding, and time to implement. But it is imperative that these conversations begin now. Institutions and educators have a responsibility to students, to health care consumers, and to the profession itself to be held accountable for the quality of massage education they provide. Perhaps a two-tiered system of massage education may prove the best solution to the profession's current identity crisis. Crisis often presents opportunity, and now is the time to begin shifting massage education, at least in part, to a more academic model for those who want the privileges and responsibilities that come with being an integrative health care provider while keeping open a career path for those who do not. In the meantime, prospective students contemplating massage therapy as a career should become informed consumers and shop around—looking carefully at all of their available educational options, asking questions about value for cost, and having frank conversations with recent graduates and faculty from different programs. Then, they should choose wisely. Their future livelihood and career success as a massage therapist depend on it.

CONFLICT OF INTEREST NOTIFICATION

The Commission on Massage Therapy Accreditation (COMTA) provided funding for this study, and COMTA staff assisted in the collection of data related to numbers of disciplinary actions by state. Cost data were taken from the United States Department of Education's published Gainful Employment 2011 Informational Rates data tables; COMTA staff contributed additional existing data collected from public sources. The author alone designed the study and survey instruments, collected the survey data, analyzed and interpreted all study data, and prepared the final report upon which this manuscript is based. COMTA gave permission for this report to be published in its entirety.

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Corresponding author: Martha Brown Menard, PhD, LMT, School of Mind-Body Medicine, Saybrook University, 747 Front Street, San Francisco, CA, USA

E-mail: mbmenard@gmail.com