Faculty Perception of and Resistance to Online Education in the Fields of Acupuncture, Chiropractic, and Massage Therapy

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This paper reports findings of a research study undertaken to determine the attitudes and perceptions of acupuncture, chiropractic, and massage therapy faculty with regard to online learning within their respective disciplines, and to determine how they might be persuaded to teach online. The study surveyed faculty teaching at schools in these three fields and followed up with additional interviews. The study results indicate that, in general, acupuncture, chiropractic, and massage therapy faculty lack awareness of the capabilities of online education and the elements of good online learning. There is also a perception that what they teach cannot be taught online because of its kinesthetic requirements. The faculty hold this perception in spite of the success of medical science and related health care fields in the online environment, and they do not seem to separate the kinesthetic from the didactic. The present study indicates that faculty opinions about online instruction in this alternative type of education range from being willing to look at the potential of online education to outright dismissing it.

KEYWORDS: Massage therapy, acupuncture, chiropractic, online education, faculty, education, CAM faculty

INTRODUCTION

With the growth of online education, many faculty are entering the virtual classroom for the first time. According to the Sloan Consortium's sixth annual report, *Staying the Course: Online Education in the United States, 2009,* enrollments in online courses grew at a rate of 17% from fall 2007 to fall 2008: more than 4.6 million students took an online course in fall 2008[1]. And according to Clark and Mayer, "close to one-third of workforce training and professional development is delivered online"[2].

The transition from face-to-face teaching to online teaching is not seamless. New skill sets obviously need to be developed in the context of technology, but attitudes and assumptions also need to be examined, best practices considered, and new competencies met. There are compelling reasons for educators to be trained in all these areas.

As a result of the e-learning boom, a theory of education called Equivalency Theory has emerged in the United States.[3] This theory argues that the learning experiences of students who study at a distance should be equivalent to those of students who study in a classroom. Although the educational delivery systems are not identical, because neither the instruction methods nor the learning experiences are the same, "[i]t is the responsibility of the distance educator to design, even overdesign, learning events that provide experiences with equivalent value for learners" (p. 51)[4].

It is imperative that planning for distance education include values (for example, credit, content, and outcomes) that are equivalent to those for similar face-to-face classes, even though the experiences might be quite different[4]. In 2006, the US Department of Education's Office of Postsecondary Education released a report titled *Evidence of Quality in Distance Education Programs Drawn from Interviews with the Accreditation Community*[5]. The report noted that when faculty attempted to convert regular courses directly into distance education courses, the results were likely to be ineffective. Most accrediting agencies—regional, national, and specialized—have similar standards regarding distance education. A review of the standards indicated that the school or the program has to meet requirements in distance learning that are parallel with those met in face-to-face learning, with particular attention to qualified staff, faculty, and administrators.

PURPOSE

The purpose of the present study was to determine the attitudes toward, and the feasibility of, online learning in degree, diploma, or certificate-granting educational programs in the fields of acupuncture, chiropractic, and massage therapy. No studies in the literature have looked at these questions within this type of education, although a plethora of literature examines faculty attitudes toward online education in more traditional colleges and universities. Therefore, in addition to determining the attitudes to and feasibility of online education in acupuncture, chi-

ropractic, and massage therapy, another aim was to compare the attitudes of faculty in those fields with the attitudes of faculty in traditional higher education.

Acupuncture, chiropractic, and massage therapy were chosen as the study focus because all three disciplines have a significant hands-on component in their respective curricula. Direct touch of the patient or client is involved in each discipline by design, and the practice cannot proceed without demonstrated competencies in the touch aspect of the work. The chosen fields are three of the five core disciplines that are distinctly licensed complementary health care professions having a federally recognized accrediting agency. The other two disciplines either have a wider scope of practice (naturopathy) or do not have the same involvement with touch of the whole body (direct-entry midwifery).

It is common knowledge that online education has taken off in higher education, K–12 education, and career and technical education[6–8]. Colleges and universities, together with private enterprises, have either developed or licensed course-management systems to deliver their courses. The complementary and alternative health care field is lagging behind. With few exceptions, courses are not being offered online in this field. The notable exception is in the arena of continuing education. Other health care fields, particularly the nursing field[9], have embraced online learning in their degree programs.

Acupuncture, chiropractic, and massage therapy each have a specialized accrediting agency. These agencies are different from the regional and national accreditors in that they have more specific curriculum requirements. The standards are defined by the field of study and put into a formal standard format by the accreditor. In general, the accreditors for the chiropractic and acupuncture professions determine not only the licensing requirements for the field, but also the acceptable curriculum delivery methods. Although massage therapy has a specialized accreditor, individual states generally control the licensure requirements and, in some cases, the curriculum requirements.

In the field of massage therapy, some state boards prohibit the use of online education in the certificate and diploma professional training curriculum. The specialized accrediting agency in massage therapy education, the Commission on Massage Therapy Accreditation, approves online education, but individual states limit its use. No move is currently under way to change that situation, although discussions are happening within certain segments of the field, such as various Internet sites devoted to massage therapy education and practice. With regard to continuing education within the massage field, there are no restrictions on online education, except as mandated for hand-on techniques.

Chiropractors have no such issues because their accrediting agency sets the rules for educational requirements in their degree programs, and the states accept their standards for licensure. According to anecdotal information from a representative of the Council of Chiropractic Education, chiropractors are currently going state to state to try to influence the rules in favor of online education for continuing education.

In the field of acupuncture, the specialized accrediting agency (Accreditation Commission for Acupuncture and Oriental Medicine) has not yet approved online education, but it currently has a task force studying the issue. If online education is approved, then schools will be able to offer online courses without going through the individual state boards, because those boards operate in much the same way as the chiropractic boards: they accept the standards of the field's accreditor.

All the specialized accrediting agencies for each of the foregoing fields are approved by the US Department of Education.

While the state regulatory agencies within these fields wrestle with the logistics of allowing for distance education, the issue of faculty buy-in remains. At a 2007 meeting in Portland, Oregon, people from these three fields and the fields of naturopathic medicine, yoga, and direct-entry midwifery met to discuss common issues. One of the topics raised was distance education. Many participants were in favor of online learning, but obtaining faculty buy-in was clearly going to be a challenge. Given that computers and electronic communication were rapidly becoming the norm in education, and that other education venues had already begun to experiment, adopt, or otherwise embrace this new method of delivering courses, why would these disciplines not follow suit? What could be holding back faculty in acupuncture, chiropractic, and massage therapy?

MATERIALS AND METHODS

This mixed-methods case study consisted of a survey and interviews. The survey instrument accommodated both a quantitative and a qualitative analysis; the interviews fleshed out the qualitative summary. The survey consisted of three sections:

- Demographics
- Technology and online experience
- Views of online education

Informed consent was obtained from the school administrator and from each of the faculty members surveyed and interviewed.

The study concentrated on three health care fields that engage very little, if at all, with distance education in their degree programs. It is of particular interest to note that online learning has proved to be as effective as face-to-face learning for medical and health care students[7]. In the context of the present study, faculty were asked what would encourage movement toward distance education within the acupuncture,

chiropractic, and massage therapy schools.

Faculty perception of distance education in the field of massage therapy was of particular interest to me because of my background in massage therapy education. Why was this particular field—as well as other fields within complementary and alternative health care—not moving more quickly toward distance education given the vocational nature of the education, and why were none of the three fields of acupuncture, chiropractic, and massage therapy keeping pace with traditional higher education and corporate training?

Through informal conversations with school owners, executive directors, and college presidents, I knew that these educational institutions understood the advantages of distance education, but that they were also not likely to move quickly. Similarly, in conversations with faculty, the general consensus was that they were neither ready for, nor interested in, online education. The research question about faculty perception of distance education and what would persuade them to teach online, independent of the administration's strategy, therefore became paramount.

Four overarching questions guided the study:

- What are the perceptions of faculty with regard to online learning?
- Are faculty's perceptions and their personal experiences with online learning related?
- Do their perceptions affect their desire to teach online?
- What would influence faculty to seize an opportunity to teach online?

The total sample size for the initial survey was 160 (Table 1). All schools whose faculty were surveyed were located in the United States, including one chiropractic college in the Northwest, one massage school with five campuses in the West, and two acupuncture schools, one in the Southwest (19 faculty) and one in the Midwest (6 faculty). All of the schools were in mid-sized urban cities. By field, 25 faculty members came from acupuncture, 75 from chiropractic, and 50 from massage therapy. In the sample, the chiropractic college was the largest in terms of population per school, followed by massage therapy and acupuncture. Because the massage therapy and acupuncture schools were smaller than the chiropractic college, two schools of acupuncture and a massage therapy school with five branches were surveyed (Table 1).

These schools were chosen as examples of typical, accredited institutions within their field. No school was using distance education, although the chiropractic school was exploring e-learning and beginning to use it in hybrid courses. According to the school owners and presidents, faculty members were not engaged in distance learning within the schools at the time of the survey. This convenience sample was small in comparison with the entire US population of faculty within the three fields, and the study focused primarily on the western half of the country. A larger sample with a wider distribution across the country may show different results.

After the survey, I interviewed 3 representative faculty from colleges and schools in the West and Midwest United States in each of the relevant fields. The interviews were audiotaped and transcribed. The interviews presented a more emotionally and intellectually satisfying perspective. The faculty members interviewed are "hands-on" people, and their stories about how they came to their opinions about e-learning added depth to the study.

RESULTS

The group that stood apart most often was the acupuncture faculty. The difference is interesting and not intuitive. For example, when asked about individual computer skills, the mode for acupuncture was Excellent; for chiropractic and massage therapy faculty, it was Good (Table 2).

Similarly, although most of the acupuncture group had not taken an online course, 67% of acupuncture faculty indicated that they were interested in online learning and were willing to teach online if the opportunity were offered. Massage therapy faculty were "not sure" (57%) that they would be willing to attempt online teaching. Chiropractic faculty were almost evenly divided between those who would try and those who were not sure (Table 3).

The responses for willingness to change teaching style to teach online were also revealing (Table 4). Acupuncture faculty profess themselves willing to make the change; chiropractic and massage therapy faculty

TABLE 1: Study Respondents by Field

	Field			
	Chiropractic	Massage therapy	Acupuncture	Total
Faculty surveyed (*n*)	75	60	25	160
Responses received [*n* (%)]	28 (37.3)	37 (61.7)	9 (36)	74 (46.3)

TABLE 2: Responses [*n* (rounded %)] to "Rate Your Computer Skills"

	Field		
	Acupuncture	Chiropractic	Massage therapy
Excellent	4 (44)	7 (25)	8 (22)
Good	3 (33)	18 (64)	18 (49)
Fair	2 (22)	3 (11)	11 (30)
Poor	0	0	0

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TABLE 3: Responses [*n* (rounded %)] to "Would You Teach Online?"

	Field		
	Acupuncture	*Chiropractic*	*Massage therapy*
Yes	6 (67)	10 (36)	9 (24)
No	1 (11)	6 (21)	7 (19)
Not sure/no response	2 (22)	12 (43)	21 (57)

TABLE 4: Responses [*n* (rounded %)] to "I Do Not Want To Change My Teaching Style to Teach Online"

	Field		
	Acupuncture	*Chiropractic*	*Massage therapy*
Strongly agree	1 (11)	3 (11)	9 (24)
Agree	0	10 (36)	12 (32)
Disagree	3 (33)	7 (25)	6 (16)
Strongly disagree	4 (44)	2 (7)	0
No response/ don't know	1 (11)	6 (21)	10 (27)

TABLE 5: Responses [*n* (rounded %)] to "I Require the Use of Technology for Assignments"

	Field		
	Acupuncture	*Chiropractic*	*Massage therapy*
Strongly agree	2 (23)	2 (7)	1 (3)
Agree	3 (38)	13 (46)	15 (41)
Disagree	2 (25)	6 (21)	17 (46)
Strongly disagree	1 (13)	4 (14)	1 (3)
No response/ don't know	1 (13)	3 (11)	3 (8)

TABLE 6: Responses [*n* (rounded %)] to "I Don't Think Students Learn Online as Well as Face to Face"

	Field		
	Acupuncture	*Chiropractic*	*Massage therapy*
Strongly agree	0	3 (11)	5 (14)
Agree	2 (22)	4 (14)	12 (32)
Disagree	4 (44)	6 (21)	6 (16)
Strongly disagree	1 (11)	2 (7)	0
No response/ don't know	2 (22)	13 (46)	14 (38)

generally agree that they do not want to have to change how they teach. This difference may be connected to another separation in the survey results, in which acupuncture faculty strongly agreed that the most important part of instruction is content. The other two disciplines disagreed. The interviews explored some of the attitudes about content compared with manner of presentation that may have contributed to this difference.

Another dichotomy that was explored in the interviews was the apparently contradictory result that massage therapy faculty were the ones to most frequently state that they require students to use technology in assignments (Table 5). And yet these faculty generally agreed that students do not learn as well online as they do in the face-to-face classroom.

Neither acupuncture nor chiropractic faculty as frequently reported using technology as massage therapy faculty did. Acupuncture faculty generally agreed that students can learn as well online as face to face; chiropractic faculty simply "don't know" (Table 6).

DISCUSSION

The four overarching questions of the survey became the focus of the in-person interviews.

What Are the Perceptions of Faculty with Regard to Online Learning?

Massage therapy faculty showed agreement with the statement that "students can learn online as well as face to face" (Table 6).

Justin, a massage therapy instructor who himself had an outstanding experience as an online student, explained that he answered negatively to that question "in relationship to massage therapy." He continues to believe that "learning online in general is extremely powerful," and yet he nevertheless asserts that "when you have to do a kinesthetic activity, [online learning] really lacks that ability."

Dianne also felt that students in massage therapy could not generally learn as well online as face to face, but her concern had to do with the learning needs of the student. Students at her school, she said, were generally not successful in their high school education; their success in massage therapy classes depended on their ability to "fully integrate" the audio, visual, and kinesthetic techniques in every class. She felt that that integration could not happen in the online format.

Erica, a massage therapy instructor, agreed strongly that students could learn equally both in online and face-to-face classes. The learning experience, she said, has to do with availability of the instructor and repetition of the material, both of which can happen in either format.

One of the chiropractic faculty also strongly agreed that both formats were equal, but he qualified that statement with the caveat that an instructor can't use the same kind of materials online as in person. Carmen, an acupuncture instructor, said that she believed the online format forces people "to learn the material better, forces

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a more active learning process, if it is done skillfully."

Most of the massage therapy faculty indicated a distinct preference for communicating in person (Table 7). This particular question dealt with the ambiance of communication preferences and did not specify a classroom context, leaving the potential that this preference could be understood to relate to a wider experience of communication. The chiropractic faculty also indicated a preference for in-person communication, but not with the unanimity of the massage therapy faculty. The acupuncture faculty were evenly split between those who would prefer to communicate face to face and those who would prefer "other" (unspecified) forms of communication.

Erica, a massage therapy instructor who had a good experience with a course she took online, said that she still preferred to communicate with her students in person rather than online. "I like to hear people's voices and intonation. Online, you can't hear people's hesitations." She conceded that, if the topic of conversation is more intellectual than personal, "then it doesn't matter to me as long as they feel they can ask [questions]" when necessary.

Adam, a chiropractic instructor, said in a follow-up interview that, before his recent experience as a student in an online class, he would have "strongly agreed" that he preferred face-to-face communication. "Now that I've had an experience of my own, it's down a notch."

Is There a Relationship Between Faculty's Perceptions and Their Personal Experience with Online Learning?

Only one of the acupuncture faculty in the sample had taken an online course, but all three had taught online. In the interviews, it became obvious that online teaching was one of the reasons that the self-described computer skills of the acupuncture cohort were higher than those of faculty in chiropractic and massage therapy.

Carmen, an acupuncture instructor, had taken several graduate-level courses online for her doctorate. She reported that the first time she was required to

work online, she "threw a fit." In the end, she discovered that the online format worked very well for the course, but that it was less successful for the mentoring aspect of the degree. She also found the online format to be much more challenging for advanced research and discussion. "You read the articles, write a synthesis paper. It really does force so much more intellectual effort."

All three of the massage therapy faculty had taken an online course, achieving self-described "good" experiences.

Erica thought the course was good because of "the amount of interaction." She appreciated "being able to have conversations back and forth with people." In addition, she was motivated to learn the subject.

Dianne, on the other hand, did not have a negative experience, but said that, because the online courses weren't "required," she had never finished one and that she was not being graded on them. This held true for her in spite of the fact that "the subjects were wonderful, and the offerings were great."

Justin's course was outside of his field—in creative writing. What made the experience good for him was "the teacher; she was excellent in the way she set up the course" and in the way she responded to the students. There was potential for some student-to-student interaction, Justin said, but few took advantage of it. The primary experience was between the teacher and the student.

The three chiropractic faculty had also taken an online course.

Stan's experience in the class was not recent. He didn't have a negative impression of the class, but what he remembers about it was that he read texts and then answered questions. The positive was the convenience of being online and not having to travel. The negative was that he does not like to read material online.

Laurie took an entire certificate in instructional technology online and has a degree in Educational Technology. In one of the courses she took, Laurie found that, because the faculty weren't looking at what the class was doing in student-to-student discussions, the students became irritated and less willing to participate. That report accords with findings by Bernard and colleagues regarding student–teacher interaction[10].

Adam is currently completing a graduate degree online and is "enjoying it immensely." He is fully engaged in a learning cohort with discussions that are both intellectual and social. Because of his enthusiasm for online learning, Adam has the potential to influence other faculty and the use of online learning at his school. Although he has never taught online, Adam has been "developing the material in my mind." A great part of Adam's enthusiasm stems from the development of relationships with the other students in his cohort. "Deep learning," he says, "comes by interaction with the content, the student, and the instructor." For Adam, that deep learning now also depends on

TABLE 7: Responses [*n* (rounded %)] to "I Would Rather Communicate in Person"

	Field		
	Acupuncture	*Chiropractic*	*Massage therapy*
Strongly agree	3 (38)	10 (36)	18 (49)
Agree	3 (38)	9 (32)	13 (35)
Disagree	3 (28)	2 (7)	1 (3)
Strongly disagree	0	2 (7)	1 (3)
No response/ don't know	0	5 (18)	5 (14)

the responses of other students in his cohort.

Two of the acupuncture faculty have taught in an integrative medicine program in which they represented a non-Western medical perspective. Each wrote their own material for the course; the material was then put online in a format deemed appropriate by the school.

Jill's course in Chinese medicine included some interaction with the students, but Jill said that her class was a group of medical doctors who were interested in Chinese medicine only "in a kind of dabbly way.... They have busy lives, and spending a bunch of time on this course was probably not what they had in mind." She had no face-to-face interaction with the students. She reported that although some of the give-and-take with students was "engaged" and "lively," it quickly became clear "that most of the students didn't post" at all.

Ryan described his Traditional Chinese Medicine course similarly. He wrote "a lot of text," which was then put up in modules for the students. They discussed the topic for five weeks, but no assessment occurred until the end, when Ryan uploaded case studies for the students to respond to. The process, Ryan says, was basically one-on-one: "They write up their assessment; I ... respond to each one." Ryan met his group face-to-face twice annually, once before the course began and again when the course concluded.

Jill and Ryan, both first-time online instructors, demonstrate clearly what Seiber says about first-time teachers believing that moving their lectures and tests to an online format constitutes online teaching. He states that teachers must also "master the art of guiding and motivating students" through the class (p. 338)[11]. According to Ray, "This disconnect fuels the dichotomy of faculty training. That is, first-time instructors feel prepared from a pedagogical perspective to instruct online, even though research suggests that instructors require additional training to successfully conceptualize, design, and deliver an online course" (p. 265)[12].

Carmen designed her own online course in a very simple, asynchronous format using threaded e-mail discussions. She had used a learning management system (Desire to Learn) in graduate school, but it was expensive and she did not have access to it when she was designing her class. Carmen basically used a blended learning model, meeting face to face with the students every two or three weeks.

Of the chiropractic faculty, Laurie was the only one who had taught online; she had also designed courses for online learning. Based on her experience as an online student, she is committed to spending more time and effort as an instructor in online courses. Bates and Watson say that to teach online in a successful manner, it is not sufficient to "make a physical move from standing in front of a class to typing on a keyboard, and keep everything else the same" (p. 40)[13]. For her college's masters in nutrition, Laurie is putting up three new courses a semester to keep up with the demand.

None of the massage therapists interviewed had taught online.

The relationship between faculty perceptions of online learning and their own online learning experiences seems mixed. In spite of having a good personal experience with online learning, most massage therapy faculty remain convinced that the best learning takes place in a face-to-face classroom. Acupuncture faculty who have taught online, but never themselves had the experience of being a student in an online course, hold extremely mixed opinions about whether such learning is viable for their students. Some strongly incline toward online learning; others just as strongly disagree. Perceptions of online learning among chiropractic faculty are the most neutral. Their experiences with taking an online course are the most varied and range from highly favorable to neither negative nor positive.

Do Faculty Perceptions Affect Their Desire to Teach Online?

In spite of their experiences with taking online courses as students, massage therapy faculty report the highest percentage of "not sure" responses to the question of whether they would be willing to teach online. The chiropractic faculty were split almost evenly between willingness to try online teaching and "not sure." More acupuncture faculty than not indicated that they were willing to teach online, leading to the conclusion that experience with taking an online course is only minimally predictive of who might be willing to attempt to teach online (Table 8).

Massage therapy faculty also do not believe that students in their discipline can learn as well online as in the classroom. When first responding to the question, they did not seem to distinguish between the different kinds of skills being taught. But then, in the interview, Justin corrected his response: "If you were talking about anatomy and physiology, you would have a chance to get a good outline and understanding of those subjects. But when it comes

TABLE 8: Responses [n (rounded %)] to "The Most Important Part of Instruction is Content"

	Field		
	Acupuncture	Chiropractic	Massage therapy
Strongly agree	3 (38)	2 (7)	1 (3)
Agree	2 (25)	8 (29)	8 (22)
Disagree	2 (25)	10 (36)	20 (54)
Strongly disagree	2 (25)	3 (11)	1 (3)
No response/ don't know	0	5 (18)	7 (19)

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to doing bodywork, I find it very difficult to imagine being able to learn bodywork online." Given those caveats, he would be open to teaching online.

Dianne, another massage therapy educator, used attention to learning styles to justify her reluctance to incorporate online education. Whether a student can learn "as well" online as in the classroom "totally depends upon the individual learner." Her assumption is that every class must be able to accommodate audio, visual, and kinesthetic styles of learning and that online coursework is "probably less likely ... to be able to accommodate an AVK approach." She admits also that her opinion is "based on limited exposure to really great online programs," and she expressed no personal interest in teaching online.

Erica, a massage therapy instructor who had an excellent online experience as a student, agreed that some students actually learn better online. She mentioned the younger, more "technologically savvy students" as better online learners, but she also included "students who are more introverted and need time to think about things before they respond, because online they can go in, check in, read through the conversation, think what they want to answer, and then post it.... It is a little less intimidating." Erica would welcome the chance to teach online.

Chiropractic faculty were generally in agreement about the effectiveness of online learning. Acupuncture faculty were evenly divided.

Faculty who believed that the instructor's personality and presentation style are more important than content with regard to student learning were less likely to believe that students could learn as well online (Table 8).

Stan, a chiropractic instructor, thought that it would be important to online learning for the "presenter's personal style to come through as well as just the content." He had no experience with an interactive online course, and so his knowledge was theoretical, based on his reading and assumptions. He has used hybrid or blended learning in some of his classes; he defines hybrid learning as posting his slide presentations and assigned readings on a website. Like some of the massage therapy faculty, Stan is reluctant to believe that entire courses should be taught online for chiropractors. "Would you want to go to a doctor who got most of his training online? Or would you want to go to someone who sat in class and did rounds and worked with more experienced doctors in a clinical setting?" Even when asked about the basic science courses such as biochemistry or physiology, Stan "could not see doing that for the entire course," primarily because he projected a loss of "direct interaction with the instructor." Ultimately, for Stan, online education would result in a loss of spontaneity in the relationship between the instructor and students. "There are moments, as a teacher ... I could see what [a] student might need, and I could come up with something that would be helpful."

Based on an assessment of his own learning style and his personal experience with online learning, Adam believes absolutely that students can learn as well online as face to face. Adam says that he tends "to learn by picking apart material on my own. Others like to sit and listen. I've found that when online learning is done well, it is rich enough and varied enough that anything is possible." Adam does not think that content is the most important part of instruction, but his hesitation did not reflect feelings about the importance of the personality of the instructor, but rather of the "sequence of the content and the nature of the way the content is being presented and whether the content is being brought out by students digging further." He believes that the way the content is presented determines whether the learning is deep or superficial, and that the distinction is not between online or face-to-face learning experiences.

Among the acupuncture faculty, all of whom had taught online, Jill's more mediocre experience with her online course left her feeling that she would have been a much better teacher if she had had a chance to actually meet her students. She also did not design her own course, although she wrote the content. But as she said, "teaching isn't just spewing your knowledge, it's engaging your students and bringing them along with you." Spewing your knowledge, she believes, is also "ineffective in the online world."

Ryan seemed to enjoy his online class more, but he, too, felt that conveyance of the content was crucial. "I think you can have a course content that is dynamic and very interesting, and students are going to learn a lot from it. But if you have somebody teaching who has no ability to interact or engage students, students are going to become bored very quickly." Unlike Jill, Ryan feels that the engaged kind of learning could take place in either an online or a face-to-face environment.

Carmen, too, taught an online acupuncture class that had minimal interaction among students; the focus was primarily on her feedback to the students. Her best interactive experience with students was when five of them were working together on a blackboard to interpret theories of herbal formulas. She has thought about how that kind of assignment could work online, and she thinks that a blended learning experience in which people could come together face to face at times would be most desirable. Her personal experience of the richness of a classroom environment in which she could hear other students' opinions has happened only in the face-to-face classroom. She finds drawbacks in online learning, particularly for students in professional training. She feels that the networking process is "just not there in the online context, which is a real disservice." In an actual classroom, fellow students "are going to be your colleagues, people you refer to, you have coffee with.... It's these friendships and linkages that are important."

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experiences with online learning profoundly affect how faculty react to teaching online or to a consideration of teaching online. Most would be willing to try an online course, but reluctance or lack of enthusiasm is quite obvious in those whose experience with online learning failed to include interaction between instructor and the students and between the students as a group.

What Would Influence Faculty to Seize an Opportunity to Teach Online?

The massage therapy faculty were the group that were least sure they would be willing to teach online. Of the three post-survey interviewees, all had taken an online class. All also indicated that they could be persuaded to teach online, but what they would need to take that opportunity varied quite distinctly.

Justin thought that shadowing another instructor through a course would be helpful. Justin guessed that he "probably could attempt to write a curriculum for an online course, but it would take a while." He also believed that the "subject matter would have to be more lecture-oriented than bodywork." Here he was speaking not only about the method of presentation, but also about the kind of material that could be easily presented in a lecture format (rather than something that would require actual touching). Justin said that he had seen students "who [had] tried to learn with a DVD, and it seems to me that they really lack the ability to truly touch a body.... In other words, they touch someone [as if] they were doing a video." He compared it to learning cardiopulmonary resuscitation on a doll. The quality of touch, he felt, could not be taught only by seeing it done; it has to be experienced. Justin uses technology in his face-to-face classroom, but only to the extent of incorporating a computerized slide presentation into a lecture.

When asked about other drawbacks he saw to incorporating online teaching into massage therapy programs, Justin cited the number of faculty who are not "comfortable with a computer" and people who have a hard time with technology in general. He also expressed doubt that the massage therapy students he encounters in the classroom would be self-motivated enough to "utilize what was there for them" in an online setting.

Interestingly, the US Department of Education *Evaluation of Evidence-Based Practices in Online Learning* (2009) found that, for K–12 students and medical and health care students, "online learning appeared more effective than traditional face to face instruction" (p. 30)[6]. That finding is significant, because many students enter massage therapy education with a high school diploma or a general education diploma.

Disincentives for Justin personally were the amount of time that he and other faculty would have to devote to even start to research online education,

let alone implement it in the school. A change would occur only if online education became a priority for the school and its faculty.

Dianne had taken several online courses and never finished one, simply because they were not required and no grades in the courses were being given. She could see no advantage to creating an online class as a part of her school's program when the students "are coming in four to five days a week and we have 180 courses." To decide on courses to offer online, in what time frame, and to which students "feels like it would be a lot more work." For massage therapy faculty at her school to begin offering online courses, Dianne felt that they would first have to be exposed "to the concept that there is such a thing as high-quality online teaching... Some research, something that points to the fact that this can be a high-quality environment." In her view, massage therapy faculty would need a "much more robust" understanding both of technology and of online learning to begin to undertake such instruction.

Of the three massage therapy faculty interviewed, Erica was the most enthusiastic about teaching online. She indicated that, whatever time was required, she would make it available. Erica's motivation came in part from having taken a course online about how to design course material to be presented online. That course also modeled how to interact with online students. She thinks that educators need training to be successful as online instructors and that the training should depend on the population of educators being considered. Many people teach in massage therapy programs; few "have a lot of formal training in things like pedagogy and curriculum and understanding objectives and assessments and how they fit together."

All faculty who have not taught online need some basic common ground, Erica insists. First, "they've got to be able to understand the technology." After that, they need to understand some general principles of course construction—such as creating interaction for students, but not an overwhelming amount of interaction. And then there are the design imperatives: they need good samples of the difference between good visuals and bad visuals: "What makes things easy to read online, and what makes things hard."

Some interviewees suggested that incentives, including compensation, might bring massage therapy faculty into online learning. Erica agreed, but added that they would also need to be convinced that their students, "who are going to be in a profession [in which] you have to interact with other human beings, will get enough opportunity to develop those interpersonal skills." Her hope is that faculty will at least look at the possibility of online work. "I'm concerned about people's quickness to say, 'You can't teach massage online,' and I hope [that] someone finds a way to make it available and nonthreatening to people to see what you can do with it.... I just hope [that] people will look at it without dismissing it, because it takes too

much work to get it going." The optimum way to get started would be "if somebody crosses that threshold and starts teaching with it."

Chiropractic faculty were evenly divided between those who would like to teach online and those who were not sure. Like the massage therapy faculty, they also did not rate content as the most important part of instruction, although they were slightly more divided than were the massage therapy faculty on that question. Like the massage therapy faculty, all three of the chiropractic interviewees had taken an online course.

Stan described his course as simply reading text and then taking a test on the content. Other than the convenience, he found nothing particularly interesting about it. He had no orientation or training before he encountered the online format, but because the course was so straightforward, he did not find it necessary. However, when thinking about the possibility of his own online teaching, Stan imagined that there might be enough variety in the presentation of the material that the "presenter's personal style could come through as well as just the content." But to feel comfortable with the experience, Stan thought he would have to take a practice course or shadow a colleague who was teaching online. As someone who was lacking experience with online coursework, Stan was unable to suggest what other incentives might interest his fellow chiropractic faculty in teaching online.

Adam, on the other hand, had such a rich experience with his online class that his idea of an incentive for online teaching are rewarding relationships and intellectual processes such as those he experienced. A large part of his motive for continuing with his online coursework was the "richness of the interaction.... I'm learning from my colleagues, we've learned to trust each other, to be honest, to share things with each other about our weaknesses as teachers." If he were to teach online, Adam would definitely need (and he would recommend for others) a "primer on communication technology."

Laurie, a chiropractic instructor who is also designing online classes for her school's program, had the most experience with online education of any of the interviewees. She was very aware of the fact that her faculty needed training "in how to use the course management system. What's a wiki? What's a blog? And how do you use them? And flat-out teaching skills.... The challenge is that, if you don't know online pedagogy, you make errors and make students angry." Laurie understands that it takes time and effort to put a class online; and even once the class is up, an instructor needs to be involved with it. She says that administrators particularly seem to think that "once you put a class up online, you are done with it. And that is so not true." She insists that, to do an adequate job, faculty need training in technology and that they need technology support from the administration.

Most of the acupuncture faculty said they would like to have the opportunity to teach online. Half had already taught online. Half agreed that although it takes more time and effort to communicate online, they are still willing to give that time, and most are willing to change their style of teaching to accommodate the online format. The acupuncture faculty as a group were the only ones to agree that the most important part of instruction is the content.

That focus on content is reflected in Ryan's experience with his Traditional Chinese Medicine course. He did not have to learn anything about online presentation programs, or podcasts, or interactive forums, because his course contained only text and e-mail responses between him and his students. The reward for Ryan—the thing that keeps him returning to teach this course—is the opportunity to interact with medical doctors who are interested in acupuncture.

Jill, who also taught medical doctors in an online Chinese medicine course, thought that she and the students would have had a better experience online if they could have met—either in person or through a video webinar. She felt that the online experience could have been better supported by the administration, through improved pay and more training for the instructors.

Carmen had taught one class that she called "online," but during it, she met the students in person every few weeks, qualifying the experience as "blended learning" or a "hybrid course." She preferred that venue because, for her, an entirely online experience would simply have been "too isolating." Carmen feels that many older people, instructors and students alike, are intimidated by technology, but that, for the younger generation, it is a "natural way to interface with the world.... They don't even have to think about it; it's a part of their reality. There are people born now who will never have known the world without a computer and the Internet." Those who don't reach out spontaneously to use online learning "don't understand it because they've never been through it," she says. For Carmen, acceptance of online learning in all of the professional disciplines is "just a matter of time. I think it will emerge as a very efficient, effective way to educate large numbers of people in various parts of the world. And it is effective."

CONCLUSIONS

The debate about whether online education is efficacious is over. Many of the studies being conducted now and for at least the last five years have focused on the needs of the instructors in the online environment[14–19]. Results from those studies document the need for faculty to receive training and assistance if they are to make the transition from teaching in the traditional classroom to teaching online[20]. And they need not only training in technology but also support from the administration[12,19–21].

Results from the present study—of attitudes among

acupuncture, chiropractic, and massage therapy faculty—indicate that these populations do not yet have the information they need to make an informed decision about the value of online education, nor the resources and training to be successful as online instructors.

Cross-tabulation of the data using the variables of age, sex, number of years teaching, and teaching status (full- or part-time) did not significantly affect the results concerning faculty perceptions about the use of online education in their respective disciplines. Positive perceptions were recorded primarily among the few faculty who had experienced what they considered good online learning.

The definitions of a "good" experience had several characteristics in common. First and most important was the ability to interact with an instructor. When the instructor was not present and interacting (and when the expectation for an instructor's presence had been created), students reported themselves irritated to the point that learning became secondary. When no instructor was present and the student was simply expected to read material and self-test, students were generally bored and only fulfilling a requirement. The second most important characteristic of a good online course experience was reported most strongly by Adam, who found in his fellow students an intellectual and a social community that significantly assisted his learning process.

Several faculty who had taken online courses agreed that the factors affecting the success of online education were the same as those affecting the success of face-to-face classroom education. Content and the manner of presentation (course design) both contributed to a successful class. It is interesting to note that, in 1983, Richard E. Clark wrote an essay[22] that essentially took the view that the medium isn't the important variable in education, the instructional strategies and the effectiveness of the instructor are.

With the exception of one or two faculty who had taught online classes, most had difficulty imagining the kind of training they might need to teach online. Notably, however, most of the faculty also had never received any training to teach in the face-to-face classroom. The difference might be that, generally, everyone has spent a fair amount of time in classrooms and assumes that they know what is required to lecture or organize a demonstration. It is generally accepted that we teach others as we learned ourselves.

Responses to questions about whether faculty would be comfortable learning to teach online or transforming their lecture material into an online format made it fairly clear that acupuncture faculty who had taught an online course were more comfortable with the idea of converting their materials. But neither Jill nor Ryan had been responsible for actually putting their own courses online; that work had been done for them. Laurie's job for the chiropractic school was to design courses for a curriculum for an online degree, and that work made her an exception among the other surveyed or interviewed faculty: she was the only one specifically trained to design online courses.

Some of the survey and interview responses suggested that certain incentives would help to overcome reluctance to engage in online teaching. None of the faculty except Laurie worked for a school or administration that had committed support to online education. If such support—in the form of recognition, or financial remuneration, or both—were to be present, faculty might be more likely to look favorably on the task. All three faculty groups disagreed generally with the suggestion that they had no time to learn to teach online. In other words, there is time to learn, but little positive reason to take that step.

The most significant reservation to using online education in these fields was the "well, it may be good for some things, but you couldn't teach my specialty that way." Some interviewees referred to the kinesthetic nature of the skill being taught, some to the social networking that is important professionally, and some to the necessity for students in "this" profession to have practice in communicating and interacting in person. The nature of this response, in contradistinction to evidence from many studies that online education can be used successfully in these fields, seems to indicate that instructors need to be educated about what online education can and cannot do and where it has been successfully used.

It is not clear that the expressed reluctance is in fact about the negatives being stated. No one said specifically, "Well, I've always done it this way, and I've done fine, so why should I change?" But the implication is there in Dianne's interview—for example, when she proudly cited the work that her school is doing to help students with a variety of learning styles, but does not seem to consider that some learning styles might be greatly assisted by an online environment. She did not appear open to that suggestion.

Unless the emotional component of such resistance is also addressed, it is doubtful that the professions studied here will see a great deal of movement toward online education by their instructors. Identifying the emotional components of resistance to online learning will be one area for further study.

RECOMMENDATIONS

From an administrative standpoint, relevant incentives could lure faculty toward teaching online. Researchers who have surveyed faculty at the university level found that incentives such as special recognition, additional pay, training in online pedagogy and technology, and flexibility in work hours would be welcomed inducements that would move instructors toward learning to teach online[11,12,14,20,23–26].

A second area for consideration is that of faculty becoming educated about online courses as a delivery method. Much research points to the efficacy of online learning and highlights the differences between good

and bad online learning, but this research is not immediately and conveniently accessible to the average instructor. An institution's administration and department heads need to make this information available. It was clear in the study survey and in some of the interviews that faculty lack a clear understanding of online education, the design of online curriculum, and the need to be trained to make the transition from classroom teaching.

Given that this preliminary study used a modified convenience sample, a study with a larger sample is recommended. The huge disparity in the number of schools teaching specific disciplines makes recruiting large numbers of faculty in each discipline difficult. For example massage therapy has approximately 1500 schools; acupuncture (the next largest discipline) has fewer than 100. The best approach might be to start by gathering sample faculty from the smallest discipline first and then attempting to match that number in the other two disciplines.

A final recommendation is that educators continue to pursue change at the accreditation level for acupuncture (a process that is currently underway, I believe) and at the state level in the case of massage therapy, so that online education can be implemented. This work is grassroots in nature, and colleges, schools, and programs that want to move in the direction of online learning for their students must start the process to effect change sooner rather than later, given that states are not particularly nimble in their response times.

CONFLICT OF INTEREST NOTIFICATION

This article originated as a Master of Arts thesis during studies at Prescott College. The thesis is available at Proquest and at Prescott College. No part of this article has been published in any other form. No conflict of interest exists for the author with regard to the creation of the present article.

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