2006 Survey of Complementary and Alternative Medicine Education in Canadian Medical Schools

Full Results

November 2006

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Survey of CAM Education in Canadian Medical Schools

The CAM in UME survey was distributed as an on-line survey in November 2006. It was designed to help assess local policies and practices with regard to CAM in UME education in Canada's 17 medical schools. This included collecting information on factors affecting implementation, key personnel, and curriculum content. The original intent of the survey was to help plan an invitational workshop (held November 30th and December 1st 2006) to discuss issues around the implementation of CAM education in medical schools.[1] However, given the wealth of information gleaned from the survey, the CAM in UME project team intends to distribute the survey biennially to faculty and student liaisons at each medical school. This data collection strategy will allow intra-school as well as inter-school comparisons over time.

2006 SURVEY RESULTS

The link to the on-line survey was distributed via e-mail to representatives of 16 of the 17 medical schools in Canada[2] as well as to individuals who would be attending the implementation workshop. Eighty percent of survey recipients (20/25) completed it, representing 13 medical schools. Five schools had two respondents. It is important to note that these are the opinions of selected faculty, students, and staff which may not be completely representative of the undergraduate medical personnel and program.

1. CULTURE AND ENVIRONMENT

A. Factors Encouraging CAM education

The factors within medical schools that seem to have had the greatest impact on the development of CAM curriculum are 'faculty who have an interest in CAM', particularly a clinical faculty member, and 'initiatives to reform or change the existing curriculum'. Other factors such as the mission/values of the medical school and local CAM research initiatives also have an impact, but to a lesser extent. In addition to an interested leader or champion, some respondents indicated that the availability of funds for curriculum development will also impact curriculum development.

Table 1: Internal Forces Encouraging the Development of CAM curriculum

	No impact (N=19)	Some Impact (N=19)	Substantial Impact (N=19)
Faculty interest in CAM	1	10	7
Curriculum reform initiatives	1	9	7
Mission and/or values of the school	2	8	5
Local CAM research initiatives	5	8	4
Changing demographics of faculty and/or students	3	8	3
Student interest in CAM	11	7	1
Accreditation	7	6	1

The impact of external factors does not appear to be as substantial as internal factors. Nevertheless, respondents felt that there a number of factors such as the patient-centred care movement and the

1 To access the CAM in UME implementation guide developed from this workshop, go to http://www.caminume.ca/documents/implementation.pdf.

2 There is at least one faculty member at each medical school who serves as a liaison between the project and their medical school. At the time of the survey, there was no individual serving as a liaison between the CAM in UME project and the Université de Montréal.

growing body of evidence on CAM which have some impact on the development of CAM curriculum. In addition to the factors listed in Table 2, some respondents noted that support and involvement from community practitioners as well as university benefactors can have a positive impact, as can funding.

Table 2: External Forces Encouraging the Development of CAM curriculum

	No impact (N=19)	Some Impact (N=19)	Substantial Impact (N=19)
Patient-centred care movement	1	12	4
Growing body of evidence on CAM	0	13	2
Increased professionalization of CAM	2	12	2
Increased accessibility of CAM	2	12	2
Staying current/competitive with other schools	8	7	2
Widespread usage of CAM	0	1	3

Although some factors were identified as more prominent contributors to CAM curriculum development, respondents generally felt that it was a combination of factors that led to change. As one respondent stated

> "*I suggest that it is probably impossible to really separate these points—all have contributed to an appropriate ambiance.*" (R8)

Another stated that:

> "*Truthfully, I have been able to make curriculum changes at [school] due to all of the factors being in place as described above. In family medicine, a national funding initiative was made available to the schools which led to a new family medicine steering committee which I became involved with, which has allowed me to bring some CAM into the undergrad curriculum. Also the larger curriculum was being overhauled which once more gave me an opportunity to contribute.*" (R15)

B. Factors Discouraging CAM education

On the other hand, there also are a number of factors that have challenged or discouraged the development of CAM curriculum in UME. Paradoxically, the factors discouraging CAM education in some schools are the same ones that are encouraging it in other schools, such as medical students and faculty members. There is relatively strong agreement amongst the respondents that lack of time in the UME curriculum (and complexity of curriculum logistics), lack of quality curriculum resources, and lack of faculty with a CAM interest and teaching experience (see Table 3) are key conditions challenging the development and integration of CAM in UME.

Table 3: Internal Forces Discouraging the Development of CAM curriculum

	No impact (N=17)	Some Impact (N=17)	Substantial Impact (N=17)
Lack of curriculum time	2	5	10
Lack of good curriculum materials	2	7	8
Lack of faculty with CAM teaching experience	3	6	8
Lack of financial resources	4	7	5
Student resistance to CAM	8	6	2
CAM education is not seen as important to UME	5	10	2

Faculty resistance to CAM	4	11	1
Mission and/or values of the school	8	4	1

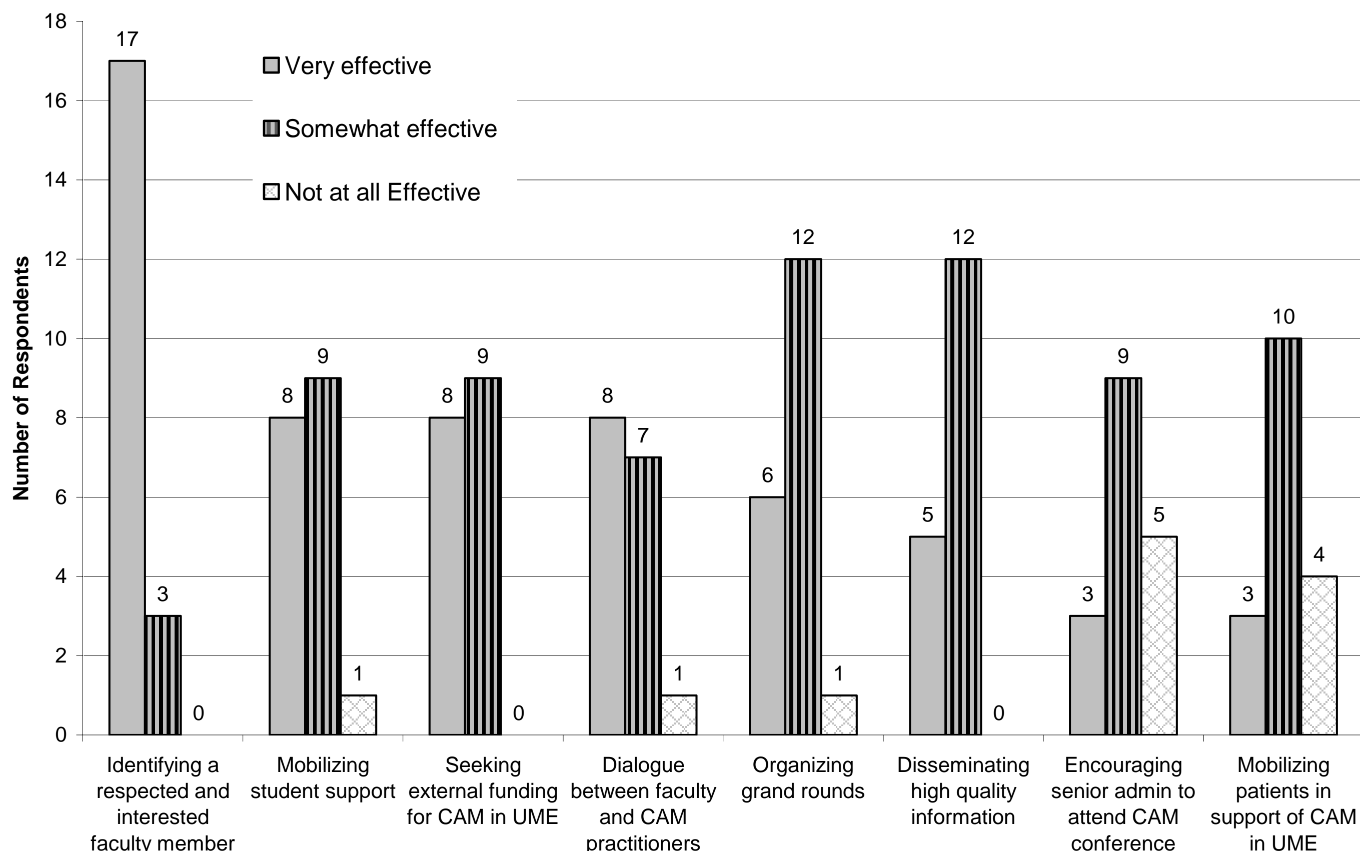
In addition, respondents also felt that the perception that CAM is unscientific and without evidence is a major deterrent to the development of CAM curriculum (see Table 4). Additional comments from the respondents suggest that the lack of official support on the part of the medical school administration as well as vocal opposition from select faculty members have both impeded progress. Respondents from 4 schools indicated that there were active efforts within their school to discourage CAM in UME. Others commented that the diversity of the CAM field is in itself an obstacle to curriculum development.

Table 4: External Forces Discouraging the Development of CAM curriculum

	No impact (N=17)	Some Impact (N=17)	Substantial Impact (N=17)
Perceived lack of CAM evidence	2	5	10
Perception that CAM is unscientific/scepticism	2	7	8
Adherence to western medical model	2	5	9
Lack of knowledgeable CAM practitioners comfortable teaching in medical school setting	5	9	1

C. <u>Strategies to get CAM on the medical school agenda</u>

In rating the potential effectiveness of a number of strategies to get CAM on the agenda, over 85% of respondents rated 'identification of a respected and interested faculty member' to champion CAM as a 'very effective' strategy; the remaining percent rated it 'somewhat effective'. This supports respondent's recognition of faculty as key to encouraging curriculum development.



Furthermore, of the 15 respondents who indicated that they had tried one or more of the identified strategies to get CAM on the agenda, having a faculty member as a leader also was rated as the most successful strategy. In fact, the majority of respondents agreed that relationships amongst colleagues interested in CAM **have to** be built to advance the introduction of CAM in UME, although suggestions on how this could be facilitated with not seen as straightforward.

"*I think this [building collegial relationships] would be ideal, but I am not sure. Furthermore, I believe that the community of teachers in our school who are interested and/or have a deep interest in CAM is quite small*". (R3)

"*It is difficult to know who is interested in this [CAM], as it is a type of 'forbidden knowledge'*. (R5)

"*Dialogue and seminar series on the subject with the emphasis on evidence based medicine.*" (R9)

"*We have established an integrative health network in [city] with membership from CAM practitioners and faculty members*". (R20)

About half of the 15 respondents had some success with organizing grand rounds and mobilizing student support as a means of getting CAM on the UME agenda.

It is important to note that several of the respondents indicated that although these strategies may be useful, many are difficult to execute, particularly in a climate where the opposition forces are stronger than the supporting forces. In one school, for example, dialogue between faculty and CAM practitioners has occurred for several years, but has not moved beyond polite meetings once or twice a year. (R2) Some respondents mentioned that it was important to recognize that curriculum development can move slowly, and a 'critical mass' of committed people is needed to push the agenda more quickly.

D. Funding for CAM curriculum development

Eight of the 20 respondents indicated that there was funding provided for CAM curriculum development, but for some funding was in the context of being a salaried faculty member who teaches CAM content.

"*My salary is paid and I teach it [CAM content]*" (R6)

For others, money was specifically allocated to CAM curriculum development from internal and/or external funds.

"*The Dean supported the local group in curriculum development with money.*" (R9)

"*…negotiations are underway with a donor for a major ("transformative") gift that will be focused on teaching of CAM to medical students and family medicine residents….* (R3)

2. KEY PERSONNEL

A. Support for CAM

In the view of these respondents, support for the integration of CAM education in UME is stronger from medical students and school administration than from teaching faculty.

Table 5: Perceived support of CAM in UME from Faculty groups

	No support at all (n=20)	Some support (n=20)	A great deal of support (n=20)	Not sure (n=20)
Medical school administration	2	11	5	2
Teaching faculty	4	14	1	1
Medical students	0	12	7	1

As noted by one respondent:

> "*The surveys indicate that students and physicians WANT the information, and there is a general acceptance of the principle; attitudes on the MANNER in which it appears in the curriculum show much more diversity.*" (R5)

Furthermore, the degree of support can change across time, particularly if the educational activities are student-driven:

> "*There was a short burst of interest last year with a few other medical students joining to organize a CAM elective, however, in terms of continuing interest and pursuit of CAM in UME, so far besides myself, I have not come across any other students interested in developing the curriculum further.*" (R__)

B. Role of Personnel

Individuals can be involved in CAM education in many different capacities.

CAM Champion: CAM champions include influential individuals who are actively encouraging and/or supporting CAM curriculum development.

CAM Coordinator: CAM coordinators are individuals who are playing a major role in planning, designing, and coordinating CAM curricula.

CAM Instructor: CAM instructors are individuals who play a major role in teaching and/or facilitating CAM curricula within the medical school.

CAM Affiliates: CAM affiliates are individuals (e.g., CAM practitioners) or organizations outside your university who play an active role in the CAM learning experience, and with which your school has developed an ongoing relationship.

Respondents were asked to estimate how many individuals were involved in CAM education in different capacities. As the roles are not mutually exclusive, one individual can fulfill one or more roles.

		N=20
CAM Champions	One champion	4
	Two or three champions	8
	More than three champions	6
	None	1
	Not sure	1
CAM Coordinators	One coordinator	8
	Two or three coordinators	2
	More than three coordinators	2
	None	7
	Not sure	1
CAM Instructors	One instructor	6
	Two or three instructors	8
	More than three instructors	5
	None	0
	Not sure	1
CAM Affiliates	One affiliate	2
	Two or three affiliates	6
	More than three affiliates	5
	None	4
	Not sure	3

Fifteen respondents indicated that was a person(s) who was/were formally designated as responsible for CAM curriculum in their school. It varied across schools whether these individuals were an instructor, a coordinator, or a champion; several fulfilled dual roles. Fourteen respondents indicated that these persons had tried to increase CAM content within the past two years.

C. Recruitment Strategies

Eight respondents indicated that specific strategies had been used to recruit, train, and retain CAM instructors. Approaching knowledgeable, community based physicians was most often tried (n=7) and rated as moderately (n=4) or very (n=3) successful. No strategy was rated as unsuccessful.

Table 7: Ratings of the success of strategies to recruit, train, and retain CAM instructors

	Very successful (n=8)	Moderately Successful (n=8)	Unsuccessful (n=8)	Not sure if successful (n=8)	Strategy Not Used (n=8)
Approach community-based physicians who are knowledgeable about CAM	3	4	0	0	1
CAM seminar series	2	1	0	0	5
CAM research network	2	0	0	0	6
Financial compensation for community-based instructors	3	1	0	0	4
Encouraging faculty to attend CAM workshop/conference	1	2	0	0	5
Provide opportunities for CAM practitioners to develop teaching skills	2	2	0	1	3

3. DESCRIPTION OF CAM CURRICULUM

A. Curriculum Descriptors

As the CAM field is so large, diverse, and dynamic there is no single definition, or even term, that is universally accepted and used. Amongst the 20 survey respondents, the term *CAM* was most commonly used to refer to CAM or CAM-related curriculum (n=16). Some respondents indicated that more than one term was used explicitly in order to help students distinguish terms. Other terms used in lieu of CAM or in conjunction with CAM included: Integrative Medicine (n=12), 'Whole Person Healing' (n=3), 'Natural Health Care' (n=1) and 'Physician as Healer' (n=1).

In describing their school's overall CAM curriculum as it currently exists, respondents checked:

Evidence-based	10	Fragmented	2
Interdisciplinary	7	Coherent	2
Integrated	6	Conventional	2
Balanced	6	Cynical	1
Biomedical	4	Derogatory	1
Conservative	4	Skeptical	1
Discipline-based	4		

Number=# of respondents who checked the term

Other descriptors that respondents freely suggested included dialectical, patient-centred, and expanding.

B. CAM curriculum in UME

Seventeen respondents indicated that their medical school provides CAM education; 15 indicated that the CAM content was required, 10 indicated that the CAM content was 'visible' and easy for students to recognize as CAM content.

Respondents were asked to distinguish between Stand-alone CAM and integrated CAM in estimating how much CAM content existed in their undergraduate program.

Stand-alone CAM: Portions of the medical curriculum (i.e., full course or designated session(s) in a course) which are dedicated exclusively or primarily to CAM and which primary learning objectives are CAM focused. This would include, for example, a one hour lecture in a course on history of medicine.

Integrated CAM: Portions of the medical curriculum in which CAM content is mentioned and/or interwoven as minor component within the context of a primary topic or discipline.

Fifteen respondents indicated that their school provides stand-alone CAM. The number of hours range from 2 to 30. Ten respondents indicated that their school provides integrated CAM content; however the percentage of UME curriculum that has integrated CAM was, not surprisingly, difficult to assess. Examples of where CAM content was integrated were: an Evidence-Based Medicine assignment in Determinants of Community Health course, Host Defense-Neoplasia-Genetics, immunology, infectious disease, oncology, gynecology, and rheumatology.

Basic information about CAM use (CAM definitions, classifications, and reasons for CAM, for example) was most frequently checked by respondents as a major topic addressed in their UME curriculum. This is closely related to delivering information about specific CAM practices (e.g., acupuncture, homeopathy, NHPs, naturopathy, chiropractic, osteopathy, aromatherapy, yoga, massage), physician-patient communication, and drug-herb interactions which were also frequently cited as topics.

CAM Basics (definitions, reasons for use)	12	Wellness	7
CAM practices	11	Medical uncertainty and EB decision making	6
Physician-patient communication	11	Stress and pyschoneuroimmunology	6
Drug-Herb interactions	10	Patient perspectives on CAM	5
Culture and Beliefs	8	CAM regulations	5
Methodology and evidence standards	8	Physician referrals to CAM practitioners	4
CAM for specific clinical conditions	8	History of CAM	2
Integrative Medicine	7		

Number=# of respondents who checked the term

With regard to education about CAM for specific clinical conditions, respondents identified the following content with the proviso that sometimes conditions change based on the clinical case being presented:

cancer prevention, hypercholesterolemia, asthma, irritable bowel disease, idiopathic headache, arthritis, eczema, prostate cancer prevention, menopause, diabetes.

Half the respondents indicated that there were major changes in their CAM curriculum over the past two years. Major changes could be number of hours, content, instructors, funding, champions, and organizational structure. Some examples of the changes the respondents noted include:

We now offer a monthly seminar series for faculty about CAM research initiatives on campus. (R2)

Have added a 2 hour tutorial session for this year; this is optional for interested students. (R5)

Fewer specific topics and more detail per topic. We now focus on acupuncture, chiropractic, natural health products including homeopathy. (R6)

CAM has been inserted into a completely new curriculum. (R7)

There have been efforts to integrate material more effectively e.g., with pharmacology. (R8)

Movement to a largely single course in third year to vertical integration into the first three years of the curriculum by the CAM lectures being taught in appropriate points in the curriculum in context. (R9)

Increase in total hours from about 17 hours in 2004, to 34 hours for the current year. Integration of CAM into systems courses (2006). Continued revision and refinement of existing CAM curriculum on the basis of new evidence and feedback from students and faculty. (R10)

Nine respondents indicated that they expect major changes in CAM curriculum in the next two years; four indicated that no changes were expected, and seven were not sure. Some examples of the expected changes the respondents noted include:

I would expect that the subject would be allotted more time for the following 2 reasons: 1. the new curricular framework..will give it a "home", [and] 2. the availability of resources, in particular, $$$ and possibly a named Chair, will be a large boost. (R3)

I have made TWO presentations to Medical Education forums on CAM teaching; the most recent one garnered considerable support (as reflected in questions and follow-up emails), including from an ex-Dean of the medical school who is glad that this information is being included in some form...(R5)

We will have optional CAM day presentation outside the regular curriculum together with students from other programs. A 4th year elective is under consideration. Strategy to integrate CAM principles into basic medical sciences and clerkship is being examined. (R20)

C. Teaching methods and evaluation

'Lectures' was selected as the most prominent method to teach CAM to medical students. About half the respondents indicated that small group teaching, readings, and invited guests were also used. The other methods were used to a lesser extent across represented schools.

Lectures	17	Critical Appraisal	4
Small Group	11	Seminars	4
Readings	10	Student Presentations	3
Invited Guests	9	Field Study	3
Case studies	7	Observations	2
Electives	5	Web modules	2
Research Project	5	Simulated Patients	1
Experiential	4	Interviewing	1

Number=# of respondents who checked the term

Eight respondents indicated that their school was evaluating the effectiveness of CAM in UME activities (5 said no, 3 were not sure, and 4 did not answer the question), predominantly through individual/group feedback. Some respondents did comment that they selected the box on the survey that evaluation was being conducted, but specified that it was only in the context of evaluation of the curriculum as a whole, and thus may or may not include specific reference to CAM. Full results are as follows:

Individual/Group Feedback (written/oral)	6	Individuals/Group presentations	1
Written assignments	3	Observed clinical encounter	1
Written exams	3	Oral exams	0
Other methods	2	OSCE	0

Number=# of respondents who checked the term

D. CAM Educational Resources

Respondents reacted positively various ways that medical schools could be helped on a national level to plan, develop, and implement CAM content into UME curriculum. A guide outlining effective strategies to facilitate CAM curriculum implementation in UME was rated 'very helpful' by the greatest number of respondents (n=13).

Table 8: Ratings of the degree of helpfulness of various strategies to support CAM in UME.

	Very helpful (n=20)	Somewhat helpful (n=20)	Not at all helpful (n=20)	Not sure (n=20)
Online repository of TLRs	10	10	0	0
Guide outline strategies to facilitate CAM in UME	13	6	0	1
Questions to generate student discussion	11	8	0	1
Executive summaries on CAM	12	6	1	0
Conference devoted to CAM in medical education	10	7	0	2

A list of recommendations on how to evaluate students' performance in this area (e.g., bank of questions) was an additional area that some respondents wanted resources on.

E. Major lessons learned

Respondents were asked to describe some of the major lessons that have been learned in their school regarding integrating CAM in UME (e.g., what topics and/or teaching methods have worked; what has failed). The comments were varied; in many, the importance of faculty support to success was inherent.

> *Exposure to CAM practitioners has been very well ranked but one needs the right practitioner to do this).* (R5)
>
> *Web-based modules can bee effective, but face resistance when little of the rest of the medical curriculum follows the same pattern.* (R8)
>
> *Go slow.* (R9)
>
> *Stay balanced and impartial. Site visits to CAM practitioners very effective. Prepare evidence in meticulous detail. Leave plenty of time for student participation. Align CAM curriculum with broader curriculum architecture. Respect skeptism and resistance.* (R10)
>
> *Student interest is there. Resistance constantly present (faculty).* (R12)
>
> *We have tried different approaches. The response changed from year to year. Information overloading is a no no. Lack of opportunity to interact directly with the curriculum committee members on a regular basis. Lack of a critical mass of interested faculty members to work on a regular basis.* (R20)
>
> *To have a very good team. Good and different teaching methods.* (R14)