Exploring the Rationale for Introducing Complementary and Alternative Medicine Curricula into Undergraduate Medical Education:

A report of a workshop at the 2004 Association of Canadian Medical Colleges Annual Meeting

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1. Background

The multi-phased education initiative funded by Health Canada since 2001 has resulted in a wealth of information about the role of complementary and alternative medicine (CAM) in Canadian medical schools. Appendix A describes the series of projects completed to date. The compilation of data from these projects indicates widespread support from medical students, teaching faculty, and associate deans across Canada to at least consider the integration of CAM material into UME programs. Over the past five years, several Canadian medical schools have begun to take steps to introduce CAM into existing UME curricula. It remains challenging, however, for any individual school to single-handedly commit the time, resources, and expertise that are needed to develop high quality CAM-related content suitable for undergraduate medical curriculum.

A truly national effort to begin collaborating on the development of a CAM curriculum began in September 2003 with a two day workshop in Saskatoon, Saskatchewan. The 26 participants included faculty from 14 of the 16 active medical schools, a representative from the Canadian Federation of Medical Students, a second medical student, two CAM practitioners, and representatives of the funding organizations, including Health Canada. Participants addressed three areas during the Saskatoon workshop: (1) a rationale for introducing CAM education into UME programs; (2) potential curriculum content appropriate for UME; and (3) potential strategies to facilitate implementing CAM education. Above and beyond these areas, an additional outcome was the establishment of a National Working Group that was charged with advancing the recommendations of workshop participants. In addition, an Advisory Committee was formed to help liaise with medical schools and to review documents as needed.

The objective of the CAM in UME Project, as it has become known, is to develop and maintain a model core curriculum addressing complementary and alternative medicine that is appropriate for introduction into Canadian medical schools. Available in both French and English, the curriculum will address CAM-related issues of greatest relevance to physicians practicing in Canada, and will be sufficiently flexible to accommodate the differing needs and circumstances of individual Canadian medical schools. It is important to note that the model curriculum is not intended to be imposed or mandated upon any Canadian medical school. Rather, it is expected that each school will select and adapt the components of the CAM curriculum that best fit their schools strategies, priorities, and circumstances. The CAM curriculum is intended to provide an impartial review of the current state of evidence for selected CAM therapies, and is not intended as a wholesale endorsement of CAM in general or of any specific CAM products or practices. It also is not intended to teach medical students *how* to practice any specific therapies. It is instead, intended to provide students with the knowledge, skills, and attitudes to enable them to discuss CAM with patients in an informed and non-judgmental manner.

An important component to the success of the project is wide dissemination of the outcomes as the work progresses. As the Association of Canadian Medical Colleges (ACMC) Annual Meeting proved, in 2001 and 2002, to be an excellent opportunity to both inform medical educators about the project and to obtain opinions about the project goals, objectives, and details, abstracts for a free-standing poster and a 90 minute workshop were submitted and accepted. This report will summarize the outcomes of the workshop, *Developing Learning Objectives and*

Curriculum Content for Complementary and Alternative Medicine in Undergraduate Medical Education, held on April 26 during the 2004 ACMC annual meeting. The workshop organizers were: Marja Verhoef, University of Calgary; Alan Neville, McMaster University; Michael Epstein, University of Saskatchewan; and Heather Boon, University of Toronto.

2. Workshop Objectives

The initial objectives of the workshop were to: (1) further explore the rationale for including CAM in UME; (2) discuss and further develop key learning objectives; and (3) link the revised learning objectives to core curriculum content. Within the context of these objectives, an attempt would be made to develop consensus around key learning objectives.

Given the limited time allotted for the workshop (90 minutes) combined with the possibility that there may be some workshop participants who are not well versed in the field, the workshop organizers elected to revise the agenda. First, rather than discussing the key learning objectives developed in the areas of knowledge, skills, and attitudes, the objectives were distributed to participants as a handout (see Appendix C).[*] Second, the third workshop objective was felt to be overly ambitious at this point, and will be placed on the agenda of the next meeting of the National Working Group. Third, in addition to maintaining the first workshop objective (the rationale for CAM in UME), a second and related objective was added, to explore practical issues surrounding bringing CAM curriculum into UME. The purpose of the workshop was then centred on getting participants to articulate (a) a well-formulated rationale for introducing CAM into UME, and (b) the challenges surrounding the introduction of CAM into UME, including potential strategies to address these challenges.

3. Workshop Format

The organizers felt that the workshop should be structured so that participants would actively contribute to the content. In this regard, they established two activities to meet these objectives:

1. Role play: Participants were asked to convince their Associate Dean UME of the necessity to include CAM curriculum in UME. Dr. Neville, playing the role of the recalcitrant dean Dr. Nihilist, then counter argued the points volunteered by the participants.

2. Scenario: Participants were asked to consider the following scenario: If CAM education became a LMCC objective tomorrow, what might your school do to accommodate this new objective?

[*] The workshop organizers also recognized that these learning objectives have already been refined on three separate occasions by different groups of individuals. Consequently, they felt that the objectives are close to being finalized, and would not benefit substantially from a review in this forum.

4. Workshop Outcomes

Approximately 25 people attended the workshop, representing the majority of medical schools across Canada. Participants included: medical students, instructional designers, curriculum developers, clerkship coordinators, and teaching faculty.

4.1 Rationale for CAM in UME

Virtually all workshop attendees actively participated in the role play, spontaneously taking on the roles of different stakeholders: university president, medical educator, clerkship coordinator, medical student, CAM consumer, and medical school donor. In the process, they restated many rationales for CAM in UME that had been identified during previous phases of the project, and also identified several new points and issues. Key points that were identified as providing rationale for CAM in UME included the following:

Student Demand – students see CAM education as an important issue. They recognize the high prevalence of CAM use by the public and believe that this has important implications for conventional medicine. Student evaluations from workshops on CAM have been positive, and although there may be a minority of students attending these workshops (which are typically not mandatory and are sometimes scheduled at inconvenient times), most students acknowledge that they should have some knowledge about CAM in order to appropriately care for their patients. Accreditation committees are also sensitive to student demands, and it may reflect poorly on the school's administration if they do not attempt to address this issue.

Rebuttal: Administrators need to be wary of bending to the interests of the minority. There needs to be sufficient evidence that this is a priority for students. Schools are not mandated to provide curriculum on CAM; it is not a requirement of the American LCME (Liaison Committee of Medical Education) or the CACMS (Committee on the Accreditation of Canadian Medical Schools) which jointly accredits Canadian medical schools.

Public Use – members of the public, particularly CAM users, are typically reluctant to discuss CAM with their conventional physician(s). The public is concerned that current physicians can not address their questions about CAM, and frequently dismiss CAM as an illegitimate health care option in discussions with their patients. This suggests that today's medical students may not be learning what they need to know in order to appropriately interact with patients.

Rebuttal: There are many useful websites for information on CAM which consumers can freely access.

Trend to Patient Centred Medicine – with the current model of patient centred medicine having gained widespread acceptance in principle, and with 30-80% of the public using CAM on a regular basis, it would seem important to address this topic in undergraduate medical education. One can deny neither the prevalence of CAM use, nor the efficacy or effectiveness of some CAM treatments. Physicians have a duty to their patients to have some knowledge about this field and its implications for the practice of medicine.

Rebuttal: Schools must be cautious about what to include in the curriculum. They should not be gullible in their decision-making, and should recognize that there are many important topics to which curriculum time could be devoted. Do schools make curriculum decision based on trends, or on what they think is important in medicine?

Trend to Bring CAM as a part of professional development (UME, GME, CME) – there is a movement in many schools, particularly in the United States, to bring CAM education into the fold of medical professional development. For example, a consortium of schools with an interest in CAM education has been formed in the United States. It is evident, therefore, that this is not a situation that is idiosyncratic to one school; there is a recognition that physicians need to be trained throughout their careers on how to discuss CAM with patients. CAM educators could help facilitate the development of a CAM curriculum or provide instruction to medical students.

Rebuttal: There is currently no mandate to provide education on CAM in UME. Educators external to the medical school should not be charged with curricular development, and it would be a dangerous precedent. Given the lack of CAM-related knowledge on the part of faculty, in addition to the limited support for the idea of introducing CAM in UME, there are few, if any, individuals with sufficient expertise to develop a suitable CAM curriculum.

Curriculum is not Static – the introduction of CAM can be a simple matter of updating existing cases for problem-based learning; it is thus a matter of integration and not substitution. There can be smooth integration of CAM curriculum as long as one does not get bogged down in particular details, for example, in one particular drug or natural health product. Medical educators should not be polarized to one side or the other (i.e., conventional medicine versus CAM). There are several potential "points of entry" for CAM material to be integrated into existing curricula. The emphasis on evidence-based medicine (EBM) can further facilitate this process.

Rebuttal: Even if the introduction of CAM is not a matter of substitution, where would we teach CAM and to what extent in order to have an impact on students? There is a danger of sacrificing critical content to ensure sufficient CAM curriculum. Time in the curriculum remains a barrier. In addition, while it may be possible to teach CAM under the umbrella of EBM, we need to be careful we adhere only to CAM treatments that are evidence-based. There also are opportunities for electives on CAM, and this may be sufficient at this point. Finally, we use the objectives of the Licentiate of the Medical Council of Canada (LMCC) to define our teaching priorities and guide the topics we select in our curriculum; there is no specific LMCC objective on CAM.

4.2 Social Accountability

Subsequent to the role play, Alan Neville suggested to workshop participants that it may be possible to bring CAM into the curriculum under the umbrella of Social Accountability[†], a theme

[†] The World Health Organization has defined the Social Accountability of Medical Schools as *"the obligation to direct their education, research and service activities towards addressing the priority health concerns of the*

that the Association of Canadian Medical Colleges has embraced. In order to make medical education and medical practice relevant to people's needs, schools need to recognize the range of health services and practices that the public uses. Although there is no LMCE standard that specifically requires CAM curriculum content, UME programs should reflect diversity, and in particular, respond to the diversity of the population with regard to health care choices.

Barriers to the introduction of CAM into UME were also identified. The tendency in the medical system to view CAM as a quasi-political trend can impede efforts to get medical school administrators to consider CAM curriculum as an important component of UME. The fear that teaching a particular topic will be viewed as endorsement of that topic further stymies the process. One participant's comment that physicians are supposed to make decisions based on the best available evidence combined with patient use and clinical choice, led to a brief discussion on the impact of personal beliefs on teaching content as well as on clinical practice. The importance placed on exploring beliefs and attitudes about CAM, particularly in the context of faculty development, reaffirmed comments made during the 2003 Saskatoon workshop.

4.3 How Do We Integrate CAM into UME: Practical Issues.

Participants were then asked to identify practical strategies for introducing CAM into UME. The comments included descriptions of what schools had done and also what factors should be considered in establishing a CAM curriculum. For example:

- The University of Toronto brings CAM content in during a course on Doctor-Patient Communication. A whole case is devoted to CAM and is presented in the context of conditions in which conventional medicine has not been helpful.

- Université Laval has a funded chair on CAM. Since that position was installed in 2002, the medical school has had a mandatory course on CAM and has integrated CAM throughout the first three years within clinical cases. There is an evaluation component on the CAM material. The biggest challenges, however, are faculty acceptance and faculty knowledge, including comfort with the curriculum content.

- Faculty development can be even more critical than student support. Persons who champion CAM curriculum can have a huge impact on credibility of the topic. In addition, the curriculum will not succeed if only a minority of faculty have "bought in" to the idea.
- The need for content validity has implications for how CAM is brought into the curriculum. For example, drawing on current research that uses PET scans to demonstrate the efficacy of acupuncture may better explain the concept of paradigms to medical students than might a lecture on energies. In reality, we can not teach students a great deal about specific CAM treatments, but we can provide and introduction to related scientific theory, and then identify CAM treatments for which plausible mechanisms have been proposed. The link between the proposed mechanism of action and the therapeutic procedure fits into the biomedical model, and thus tends to be more readily accepted by students. However, some participants did caution that both historically and currently, physicians utilize conventional therapies without

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community, region, and/or nation they have a mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public." (1995)

knowing the mechanism. The assumption that there is a mechanism for every therapeutic technique is invalid for both conventional and complementary medicine.

- Financial support is a necessary factor for curricular reform. However, some participants felt that money alone can not open all the doors, particularly with regard to CAM in medical education. One needs to have a well developed plan of action, and one or more persons to champion the initiative, in addition to funding.

- Political pressure or public action can lead to change.

- One of the goals of the medical education system, and in particular UME, is to teach students to be life-long learners; to seek information on topics of particular relevance to physician and patients. CAM can fit under this umbrella.

- It may be beneficial to conduct student surveys, particularly in schools that are beginning to introduce CAM curriculum. In this way, educators would have a better understanding of the impact of the CAM curriculum on student's knowledge, attitudes, and skills.

- There needs to be greater linkage between the education content in UME, Graduate Medical Education (GME), and Continuing Medical Education (CME) with regard to CAM. This is important in order to reinforce and build upon the undergraduate educational experience involving CAM.

- CAM content should be framed in terms of evidence-based medicine (EBM), and should be delivered just prior to clerkship (although this does not negate the importance of CAM integration throughout the UME program).

- Medical school deans are influenced by what is presented at national and international meetings. Therefore, efforts to present outcomes of the CAM in UME project at these levels should continue.

- Involving CAM practitioners in the classroom, while challenging, can be useful if they are adequately prepared and if it is not set up as an adversarial situation.

Individuals at the workshop were receptive to the workshop format and generated many ideas and comments. The workshop served to give participants a broad perspective of the issues surrounding the introduction of CAM in UME. Likewise, it served to reaffirm and validate, from a new audience, the purpose, challenges, and potential solutions to developing and integrating a CAM curriculum.

5. Conclusion

The workshop held at the 2004 Annual meeting of the Association of Canadian Medical Colleges provided the opportunity to disseminate information about the CAM in UME project to an audience intimately involved with medical education. The workshop confirmed the need for,

and interest in, CAM curriculum for undergraduate medical education. However, it also is clear that this is a process that will take time. Our team is committed to continue the development of a model CAM curriculum for UME, and will continue to seek expert advice from individuals outside the project as we progress through development and towards implementation and evaluation.