# Family Medicine Residency Program Directors Attitudes and Knowledge of Family Medicine CAM Competencies

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**Context:** Little is known about the incorporation of integrative medicine (IM) and complementary and alternative medicine (CAM) into family medicine residency programs.

**Objective:** The Society for Teachers of Family Medicine (STFM) approved a set of CAM/IM competencies for family medicine residencies. We hope to evaluate whether residency programs are implementing such competencies into their curriculum using an online survey tool. We also hope to assess the knowledge and attitudes of Residency Directors (RDs) on the CAM/IM competencies.

**Design:** A survey was distributed by the Council of Academic Family Medicine (CAFM) Educational Research Alliance to RDs via e-mail. The survey was distributed to 431 RDs. Of those who received it, 212 responded, giving a response rate of 49.1%. Questions assessed the knowledge and attitudes of CAM/IM competencies and incorporation of CAM/IM into the residency curriculum.

**Results:** Forty-five percent of RDs were aware of the competencies. In terms of RD attitudes, 58% reported that CAM/IM is an important component of residents' curriculum; yet, 60% report not having specific learning objectives for CAM/IM in their residency curriculum. Among all programs, barriers to CAM/IM implementation included time in residents' schedules (77%); faculty training (75%); access to CAM experts (43%); lack of reimbursement (43%); and financial resources (29%).

**Conclusions:** While many RDs are aware of the STFM CAM/IM competencies and acknowledge their role in residence education, there are many barriers that prevent residencies from implementing the STFM CAM/IM competencies.

**Key words:** Complementary medicine, medical education, family medicine



## INTRODUCTION

In 2010, a single set of suggested competencies and learning objectives for all family medicine residencies was approved by the Society for Teachers of Family Medicine (STFM) board of directors.[1] Integrative Medicine (IM) combines conventional medicine and evidence-based complementary and alternative medicine (CAM); it is defined by the Consortium of Academic Health Centers for Integrative Medicine as "the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing."[2]

The spreading popularity of CAM use among patients has led to an increased need for physician's knowledge of CAM/IM therapies and counseling skills.[3] Furthermore, evidence of efficacy and safety of CAM/ IM has grown, in terms of research and clinical practice.[4–6] Initially, training in CAM/IM was done after residency, through a fellowship program or through continuing medical education courses. Now, there is an effort to incorporate CAM/IM curriculum into residency training.[7,8] As this new field emerges, family medicine residencies have struggled with how to implement the best of evidence-based CAM and principles of IM into the curriculum.[8,9] There are over 40 family medicine residencies that officially advertise CAM/IM in their program.[2] In the past, family medicine educators have developed suggested curricular guidelines in CAM and Integrative Medicine.[10]

In this study, we surveyed family medicine residency programs to assess implementation of CAM/IM training in to residencies. Additionally, we assessed the knowledge and attitudes of residency directors about CAM/IM and the barriers to incorporation of CAM/IM teaching into residency curriculum. We hypothesized that 20% of residency directors would have knowledge of the CAM/IM competencies and 30% of residencies will have CAM/IM curriculum in place or are implementing guidelines.

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## METHODS

An online survey, sponsored semi-annually by the Council of Academic Family Medicine Educational Research Alliance (CERA) was distributed, through SurveyMonkey, to a national sample of 431 residency directors via e-mail. The contact list for the survey was generated using the STFM residency director database. Those on the target population list for the survey were sent an initial announcement and two reminders on 3/23/12 and 4/18/12. Of those who received it, 212 responded, giving a response rate of 49.1%. General survey questions assessed both demographic characteristics of the residency directors and the residency program: region of program, size of community served, total number of residency spots, type of hospital, number of non-US graduates, and age of program.

### Integrative Medicine/CAM Questions

Six questions placed on residency director survey were dedicated to assess the current state of CAM/IM integration into family medicine residency programs. The first question asked, "Were you aware that in January of 2010 the STFM Board of Directors passed recommended competencies in the area of complementary alternative medicine/integrative medicine?"

The next two questions focused on the approved STFM CAM/IM competencies. The competencies have 19 measurable domains and learning objectives for resident skills, attitudes, and knowledge (Appendix A). We categorized these into 11 topic areas: nutrition and healthy diet; dietary supplements (vitamins, herbs, and other supplements); prescription drug–dietary supplement interactions; exercise prescriptions; stress management techniques for patients; spirituality; complementary therapies (e.g., acupuncture, manipulation, and massage); mind/body techniques (yoga, deep breathing, and meditation); documentation of patient's CAM/IM use in the medical record; cultural competency; and self-care for residents. For each topic, type of teaching method (didactics, clinical rotations, and electives), and amount of time spent (none, one to eight hours, nine to 16 hours, 17-24 hours, and $>25$ hours) was asked.

The fourth question assessed residency director's attitudes toward CAM/IM with a five item Likert scale (strongly disagree, disagree, neutral, agree, and strongly agree) for the following: CAM/IM is an important component of the residents' curriculum; their program effectively evaluates CAM/IM teaching; CAM/IM helps to recruit new interns; currently uses the STFM CAM/IM competencies; specific learning objectives for CAM/IM in curriculum; curriculum includes teaching history taking and counseling about CAM/IM.

The fifth question asked about barriers to implementing the CAM/IM competencies. These include faculty training; financial resources to pay faculty; time in resident's schedules; access to experts in the area of CAM/IM to teach residents; and lack of reimbursement for CAM/IM in clinical settings. The last question addresses stress management techniques in residency settings and will be published in an additional paper.

### Statistical Analyses

We used descriptive statistics including the chi square tests using SAS$^{TM}$ software (Version 9.1 SAS Institute, Cary, NC). We categorized variables as follows: gender, years as residency director, number of non-US graduates; region of program (northeast, south, midwest, and west); size of community served (less than 75,000, 75,000–150,000, 150,000–500,000, and more than 500,000); total number of residency slots (0–19, 20–29, and 30+); type of hospital (university-based; community-based, university-affiliated; community-based, non-affiliated; and military/other hospital); and age of program (0–20 years, 21–35 years, 36–40 years, and 41+ years). In the analysis of residency director's attitudes, we combined the strongly disagree and disagree responses together to represent the disagree attitude.

We define "strong CAM/IM programs" as programs that have any of the three types of teaching techniques (didactics OR clinical rotations OR electives) for ALL the following domains: dietary supplements, drug–dietary supplement interactions, exercise, stress management, spirituality, complementary therapies, mind/body techniques, documentation of patient's CAM/IM use, and self-care for residents. "Weak CAM/IM programs" were those that did not have at least one of the three types of teaching techniques for ALL the above-mentioned domains. We did not include cultural competency or healthy diet and nutrition in the definition of a strong or weak CAM/IM programs, because these are required in the Accreditation Council for Graduate Medical Education (ACGME) guidelines for family medicine and therefore are required of all residencies.[11]

The overall survey administered by the CERA administrators was approved by the Institutional Review Board of the American Academy of Family Physicians. The survey analysis was approved by the Institutional Review Board of Boston University School of Medicine.

## RESULTS

There were 212 residency directors who responded to the survey. Table 1 describes the characteristics of the residency directors and residency programs. Forty-five percent ($n = 95$) of the residency directors were aware of the competencies. Forty-four percent of all programs ($n = 93$) had strong CAM/IM programs. Twenty-nine percent of these programs ($n = 27$) were in the Northeast. Forty percent ($n = 37$) of the strong CAM/IM programs had less than 20 residency slots and 31% ($n = 29$) served communities with less than 75,000 people. Strong CAM/IM programs typically had only one non-US graduate (62%, $n = 58$).

Table 2 describes residency program incorporation of various CAM/IM topics in the following domains of instruction: didactics, clinical rotations, and electives. CAM/IM was incorporated more into didactics than clinical rotations and electives. The most frequently incorporated topics in didactics were cultural competency (92%), self-care for residents (91%), and healthy diet and nutrition (87%). Within clinical rotations, exercise prescriptions (67%) were most frequently taught. Spirituality was included in 54% of didactics, 33% of clinical rotations, and 24% of electives. In terms of domains not included in the curriculum, 33% ($n = 69$) of programs did not include documentation of patient's