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

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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

Table 1. Characteristics of Residency Programs

Demographics	All Programs, $N = 212$, n (%)	RDs Aware of Competencies, $N = 95$, n (%)	RDs Unaware of Competencies, $N = 115$, n (%)	Strong CAM Programs,[a] $N = 93$, n (%)	Weak CAM Programs, $N = 119$, n (%)
Region of program		$P = .3935$		$P = .0706$	
Northeast	46 (22)	23 (50)	23 (50)	27 (59)	19 (41)
South	45 (22)	22 (49)	22 (49)	15 (33)	30 (67)
Midwest	56 (26)	26 (46)	29 (52)	24 (43)	32 (57)
West	61 (29)	22 (36)	39 (64)	23 (38)	38 (62)
Missing	4 (2)				
Size of community served		$P = .2791$		$P = .7351$	
Less than 75,000	62 (29)	31 (50)	30 (50)	29 (47)	33 (53)
75,000–150,000	46 (22)	19 (41)	27 (59)	21 (46)	25 (54)
150,000–500,000	44 (21)	23 (52)	21 (48)	16 (36)	28 (63)
More than 500,000	59 (28)	21 (36)	37 (63)	26 (44)	33 (56)
Total number of residency slots		$P = .1840$		$P = .3667$	
0–19	85 (40)	41 (48)	43 (51)	37 (44)	48 (56)
20–29	79 (37)	29 (38)	49 (62)	31 (39)	48 (61)
30+	48 (23)	25 (52)	23 (48)	25 (52)	23 (48)
Type of hospital		$P = .5821$		$P = .6579$	
University-based	37 (17)	19 (51)	18 (49)	17 (46)	20 (54)
Community-based, University-affiliated	139 (66)	64 (46)	75 (54)	62 (45)	77 (55)
Community-based, non-affiliated	22 (10)	7 (32)	13 (59)	7 (32)	15 (68)
Military/other	14 (7)	5 (36)	9 (64)	7 (20)	7 (50)
Number of non-US grads		$P = .5355$		$P = .0493$[a]	
1	110 (52)	44 (40)	64 (58)	58 (53)	52 (47)
2	27 (13)	14 (52)	13 (48)	10 (37)	17 (63)
3	32 (15)	17 (53)	15 (47)	10 (31)	22 (69)
4	39 (18)	17 (44)	22 (56)	13 (33)	26 (67)
Unknown	4 (2)				
Number of years training has been around		$P = .2722$		$P = .4374$	
0–20	53 (25)	20 (37)	32 (62)	27 (51)	26 (49)
21–35	47 (22)	19 (40)	28 (60)	18 (38)	29 (62)
36+	110 (52)	55 (50)	54 (49)	48 (44)	62 (56)

RD, Residency Director; CAM, complementary and alternative medicine. We did not include Cultural competency or healthy diet and nutrition in these eight because these are core areas in the ACGME guidelines for Family Medicine. Number unknown for all programs: age = 2, size of community served = 1, number of years training has been around = 2.

[a]Denotes the number of residency programs that identified at least one teaching method from each of the following competencies: dietary supplements (vitamins, herbs, and other supplements), prescription drug–dietary supplement interactions, exercise prescriptions, stress management techniques for patients, spirituality, complementary therapies i.e., acupuncture, osteopathic manipulation, massage etc., mind/body techniques (yoga, deep breathing, and meditation), documentation of patient's CAM/IM use in the medical record, and self-care for residents.

CAM/IM use and 31% ($n = 66$) did not include any mind/body techniques. Eleven percent did not include information on dietary supplements and medication interactions. Of the ACGME-required domains, nine programs did not have cultural competency and six programs did not have any curriculum on healthy diet and nutrition.

In terms of residency director's attitudes, 58% felt that CAM/IM is an important component of the residents' curriculum for their program; yet, 60% report not having

Table 2. Teaching Topics in Integrative Medicine and Complementary and Alternative Medicine

Topics	Didactics (Lectures and Case Conferences), *N* (%)	Within Clinical Rotations, *N* (%)	Within Electives, *N* (%)	All Three Types of Teaching,[a] *N* (%)	Any Inclusion, *N* (%)	No Inclusion, *N* (%)
Healthy diet and nutrition	184 (87)	127 (60)	93 (44)	65 (31)	206 (97)	6 (3)
Dietary supplements	151 (71)	81 (38)	80 (38)	35 (17)	188 (89)	24 (11)
Prescription drug–dietary supplement interactions	150 (71)	106 (50)	62 (29)	32 (15)	189 (89)	23 (11)
Exercise prescriptions	141 (67)	141 (67)	68 (32)	47 (22)	190 (90)	22 (10)
Stress management techniques for patients	162 (76)	129 (61)	62 (29)	42 (20)	194 (92)	18 (8)
Spirituality	114 (54)	70 (33)	52 (24)	23 (11)	155 (73)	57 (27)
Complementary therapies	139 (66)	95 (45)	95 (45)	49 (23)	179 (84)	33 (16)
Mind/Body techniques	109 (51)	61 (29)	74 (35)	28 (13)	146 (69)	66 (31)
Documentation of patient's CAM/IM use in the medical record	78 (37)	107 (51)	51 (24)	27 (13)	143 (67)	69 (33)
Cultural competency	196 (92)	139 (66)	68 (32)	62 (29)	203 (96)	9 (4)
Self-care for residents	193 (91)	101 (48)	52 (24)	44 (21)	199 (94)	13 (6)

CAM, complementary and alternative medicine; IM, integrative medicine.

[a]The number of programs that had didactics, clinical rotations, and electives for each competency.

specific learning objectives for CAM/IM in their residency curriculum. Table 3 demonstrates the residency director's attitudes towards CAM/IM curriculum compared to awareness of competencies. Among the residency directors who were aware of the competencies, 68% reported CAM/IM as important component of the residents' curriculum ($P = .04$) compared to those with no awareness of competencies. Among those aware of the competencies, 24% had effective evaluation of CAM/IM in their program ($P = .01$) and 15% used the current STFM CAM/IM competencies to guide teaching efforts ($P < .01$) compared to those with no awareness of competencies.

In Table 4, strong and weak CAM/IM programs are compared across residency barriers to CAM/IM curriculum. Among all programs, barriers identified included time in residents' schedules (77%); faculty training (75%); access to CAM experts (43%); lack of reimbursement (43%), and financial resources (29%). Although there was a trend that stronger CAM/IM programs had less barriers, there was a significant difference between strong and weak CAM programs in identification of faculty training ($P = .0208$) and access to experts in CAM/IM ($P = .0196$) as barriers.

DISCUSSION

Our findings are the first to report on the current incorporation of CAM/IM topics into family medicine residency programs at a national level. Although over half of the responding residency directors (58%) felt that CAM/IM is an important component of the residents' curriculum, a large percentage (60%) report not having specific learning objectives for CAM/IM in their residency curriculum. More than half of the respondents (55%) were not aware of the CAM/IM STFM competencies and less than half of the programs surveyed (44%) had strong CAM/IM programs.

There is very little mentioned in the ACGME/Family Medicine residency review committee guidelines to determine the residency curriculum requirements regarding teaching CAM/IM topics. The following topics are included in the guidelines: "attention to cross cultural issues," "prevention of fatigue in residents," and the word "nutrition" is used in several sections.[11] Of the ACGME-required domains mentioned by the participants, 3% did not report any teaching of healthy diet and nutrition. Four percent did not report any inclusion of cultural competency in the curriculum.

There are several core areas of CAM/IM that were not included as frequently as expected in the residency curriculum. Thirty-three percent of programs did not include documentation of patient's CAM/IM use in the medical record, which is required during medical reconciliation by the Joint Commission.[12] Thirty-one percent did not include any mind/body techniques in spite of the growing evidence on the effectiveness of these techniques in stress-related medical conditions.[13–15] Spirituality assessment is considered an advanced skill for health providers[16] and a very valuable skill for physicians in roles of delivering bad news and taking care of patients at the end of life.[17] Spirituality was included in 67% of the programs that responded.

Awareness of the STFM-recommended CAM/IM competencies might be the first step to establish a CAM/IM curriculum that could have an impact on quality of patient care. Among residency directors who were unaware of the competencies, 45% disagreed with the statement "the goal of CAM/IM training is for residents to take a history and counsel about CAM/IM." The Joint Commission on Accreditation of Health Care Organizations recommends that

Table 3. Attitudes of RDs Versus Awareness of Competencies

	Total *N* (%)	Aware of Competencies *N* = 95, *n* (%)	Unaware of Competencies *N* = 115, *n* (%)	*P*-Value
CAM/IM is an important component of the residents' curriculum at our program				.0365
Disagree	36 (17)	14 (15)	21 (18)	
Neutral	52 (25)	16 (17)	35 (31)	
Agree	121 (58)	63 (68)	58 (51)	
We have effective evaluation of our CAM/IM teaching				.0135
Disagree	109 (52)	39 (42)	69 (61)	
Neutral	65 (31)	32 (34)	32 (28)	
Agree	35 (17)	22 (24)	13 (11)	
CAM/IM programs have been effective in helping us recruit new interns				.0088
Disagree	113 (54)	39 (42)	72 (63)	
Neutral	54 (26)	32 (34)	22 (19)	
Agree	43 (21)	22 (24)	21 (18)	
We use the current STFM CAM/IM competencies to guide our teaching efforts				<.0001
Disagree	154 (73)	52 (56)	100 (87)	
Neutral	40 (19)	27 (29)	13 (11)	
Agree	16 (8)	14 (15)	2 (2)	
We have specific learning objectives for CAM/IM in our residency curriculum				.0003
Disagree	127 (60)	42 (45)	83 (72)	
Neutral	34 (16)	19 (20)	15 (13)	
Agree	49 (23)	32 (34)	17 (15)	
The goal of our CAM/IM residency training is for residents to take a history and counsel about CAM/IM with each patient				.0080
Disagree	79 (38)	25 (27)	52 (45)	
Neutral	64 (31)	28 (31)	36 (31)	
Agree	65 (31)	38 (42)	27 (23)	

STFM, Society for Teachers of Family Medicine; CAM, complementary and alternative medicine; IM, integrative medicine.

physicians prompt patients about herbals and dietary supplements in order to improve patient history taking and provide comprehensive care.[12] For example, numerous surveys have demonstrated that the disclosure rate of the use CAM/IM, especially dietary supplements, can be less than 50% of clinical encounters.[18] This presents not only a missed opportunity for shared decision-making but also a potential patient safety issue.

Among those aware of the competencies, only 24% have effective evaluation of CAM/IM in their program and 15% use the current STFM CAM/IM competencies to guide teaching efforts. Implementation of CAM programming may be influenced by faculty attitudes, resident attitudes, and the ability to evaluate program efforts. In terms of Residency Director's (RD's) attitudes, we found that over half felt that CAM/IM is an important component of the residents' curriculum for their program; yet, 60% report not having specific learning objectives for CAM/IM in their residency curriculum. In general, other studies have found that many medical students, residents, and faculty have positive attitudes towards CAM/IM.[8,19] There are several examples in the literature of successful implementation of curriculum by motivated residents and residencies open to CAM/IM.[7,20]

The largest barriers to CAM/IM incorporation are lack of trained faculty and time in the resident schedule. Philosophical differences among providers can be a major barrier to successful program implementation.[21] Identification of these barriers to evaluation is important to working on improving programming efforts that meet residents' needs. Further, incorporation of techniques that can be utilized in a time-sensitive manner to overcome known barriers in communication and knowledge base appear justified. Communication strategies include changes in how patients are approached about their use and interest in CAM such as utilizing initial queries about CAM in an open, nonjudgmental manner.[22] Practitioner support strategies include point-of-care resources and online modules, which have demonstrated improvement in clinician expertise and confidence (in the area of dietary supplement management).[23,24]

Table 4. Programs Containing eight of the STFM CAM Competencies by Barrier to Implementation

	Total *N* (%)	Faculty Training, *n* (%)	Financial Resources, *n* (%)	Time in Residents' Schedules, *n* (%)	Access to experts in CAM/IM, *n* (%)	Lack of Reimbursement, *n* (%)
Total *N* (%)	212 (100)	160	62	164	92	92
Strong CAM programs[a]	93 (44)	63 (40)	26 (42)	73 (45)	32 (35)	39 (42)
Weak CAM programs	119 (56)	97 (60)	36 (58)	91 (55)	60 (65)	53 (58)
P-value	–	.0208	.7155	.7268	.0196	.7044

CAM, complementary and alternative medicine; IM, integrative medicine. We did not include cultural competency, or healthy diet and nutrition in the eight, because these are core areas in the ACGME guidelines for Family Medicine.

[a]Denotes the number of residency programs that identified at least one teaching method from each of the following competencies: dietary supplements (vitamins, herbs, and other supplements), prescription drug–dietary supplement interactions, exercise prescriptions, stress management techniques for patients, spirituality, complementary therapies i.e., acupuncture, osteopathic manipulation, massage, etc., mind/body techniques (yoga, deep breathing, and meditation), documentation of patient's CAM/IM use in the medical record, and self-care for residents.

Forty-four percent of all programs had strong CAM programs, denoted by having a least one teaching method from each of the competencies asked about. Of these programs, the majority were in the Northeast and served a community with less than 75,000 individuals. Sixty-two percent of strong CAM programs had a majority of residents from US medical schools. Fewer number of the residencies with stronger CAM programs identified faculty training and access to CAM/IM provider as a barrier. Recruiting faculty with training in integrative medicine and identifying local CAM/IM resources might facilitate the incorporation of CAM/IM curriculum.

There are several limitations to our analyses. First, our sample size only represents 50% of all family medicine residency programs. In addition, we were limited by the number of CAM/IM questions we could include in the survey. Thus, we were unable to assess follow-up questions to our questions, such as how RDs learned about the competencies or which CAM/IM providers were on staff.

CONCLUSION

Awareness of the STFM CAM/IM competencies was related to attitudes of the residency directors toward CAM/IM teaching. In addition to the need of dissemination of the CAM/IM competencies to all program directors, faculty development programs, flexible curricular models, and incorporation of existing communication and educational approaches could facilitate CAM/IM educational initiatives. It is important to address barriers to implementation as CAM/IM has an important role in patient-centered medical care.

APPENDIX A. STFM GROUP ON INTEGRATIVE MEDICINE COMPETENCIES AND LEARNING OBJECTIVES

For the 19 measurable domains and learning objectives for resident skills, attitudes, and knowledgeee see Table A1.

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Table A1. Types of goals and objectives noted for each competency noted: attitudes (A), knowledge (K), and skills (S)

Patient Care: Compassionate, Appropriate, and Effective for the Treatment of Health Problems and the Promotion of Health.
Residents are expected to:

1. Demonstrate patient-centered history-taking, using a biopsychosocial approach that includes an accurate nutritional history, spiritual history, and inquiry of conventional and complementary treatments (S)
2. Facilitate health behavior changes in patients, using techniques such as motivational interviewing or appreciative inquiry (S)
3. Collaborate with patients in developing and carrying out a health screening and management plan for disease prevention, and treatment using conventional and complementary therapies when indicated (S)

Medical Knowledge: Established and Evolving Biomedical, Clinical, Epidemiological, Social–Behavioral Science, and Application to Patient Care.
Residents are expected to:

4. Understand the evidence base for the relationships between health and disease and the following factors: emotion, stress, nutrition, physical activity, social support, spirituality, sleep, and environment (K)
5. Evaluate the strength and limitations of Evidence Based Medicine (EBM) as it applies to conventional and complementary approaches and its translation into patient care (K)
6. Demonstrate understanding of common* complementary medicine therapies, including their history, theory, proposed mechanisms, safety/efficacy profile, contraindications, prevalence, and patterns of use (K)

Interpersonal and Communication Skills: Effective Exchange of Information and Collaboration With Patients, Families, and Health Professionals.
Residents are expected to:

7. Recognize the value of relationship-centered care as a tool to facilitate healing (A and K)
8. Demonstrate respect and understanding for patients' interpretations of health, disease and illness that are based upon their cultural beliefs and practices (K, S, and A)
9. Demonstrate respect for peers, staff, consultants and CAM practitioners who share in the care of patients (S and A)

Practice-Based Learning and Improvement: Investigate/Evaluate Care of Patients, to Appraise and Assimilate Scientific Evidence, and to Continuously Improve Patient Care Based on Constant Self-Evaluation and Life-Long Learning.
Residents are expected to:

10. Identify personal learning needs related to conventional and complementary medicine (K and A)
11. Use EBM resources, including CAM, at the point of care (S)
12. Identify reputable print and online resources on conventional and complementary medicine to support professional learning (K and S)

Professionalism: A Commitment to Carrying Out Professional Responsibilities and an Adherence to Ethical Principles.
Residents are expected to:

13. Demonstrate the ability to reflect on elements of patient encounters, including personal bias and belief, to facilitate understanding of relationship-centered care (S, A)
14. Understand importance of self-care practices to improve personal health, maintain work equilibrium and serve as a role model for patients, staff, and colleagues (A, K)

Systems-Based Practice: Awareness of, and Responsiveness to, Larger Context and System and Ability to Call Effectively on Resources to Provide Optimal Health Care.
Residents are expected to:

15. Understand different reimbursement systems and their impact on patient access to both conventional and complementary interventions (K)
16. Understand national and state standards related to training, licensing, credentialing, and reimbursement of community CAM practitioners (K)
17. Collaborate with community CAM practitioners and other health care specialists in the care of patients, while understanding legal implications and appropriate documentation issues (S, K)
18. Identify strategies for facilitating access to integrative medicine services for their patients, including low income populations (K)
19. Understand the principles of designing a health care setting that reflects a healing environment (K and S)

Table A1 (*continued*)

Skills That Support the Above Competencies

Residents will develop the following skills:

1. Efficiently elicit a typical day's food and drink intake from a patient.
2. Identify three patients with spiritual beliefs or practices that affected their health care and how you worked with them.
3. Gather relevant information regarding safety, efficacy, and cost of a complementary therapies intervention and to communicate this information clearly to the patient.
4. Develop a treatment plan with a patient using conventional and complementary therapies in concert for maximum benefit.
5. Give examples of common herbs and supplements and explain available research regarding use, safety and efficacy or where to find that information.
6. Identify patients who may benefit from mind/body techniques.
7. Describe at least two relaxation techniques in sufficient detail and demonstrate efficiently in the patient care setting.
8. Teach the principles of sleep hygiene.
9. Prescribe nutrition and lifestyle recommendations based on current research specific to individual patient needs.
10. Describe 3 dietary interventions that have been proven to decrease morbidity or mortality in:
    a. Diabetes
    b. Coronary Artery Disease
    c. Pregnancy
    d. Osteoarthritis
    e. Hypertension
11. Be able to explain what aspects the FDA regulates with respect to herbal products and dietary supplements.
12. Assess one's own healthcare habits and design an achievable plan for self care.