

EDUCATION, INITIATIVES, AND INFORMATION RESOURCES

Exploring the Role of Complementary and Alternative Medicine in Public Health Practice and Training

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ABSTRACT

Objectives: Consumer use of complementary and alternative medicine (CAM) in the United States continues to expand. Although conventional medicine has responded actively, the response from public health has been far less pronounced. To examine the potential for integrating CAM into public health contexts, an exploratory survey was conducted.

Design: A 19-item, self-administered survey instrument was used to collect participant data.

Settings/location: Participants were surveyed at the 2003 American Public Health Association (APHA) annual meeting while attending CAM-related talks sponsored by the Alternative and Complementary Health Practices Special Interest Group (ACHP SPIG).

Subjects: A convenience sample of 153 individuals was surveyed, which was predominantly female (81%) and Caucasian (68%), with an average age of 42 years.

Outcome measures: The survey instrument included items about participant and client demographics, participant use of CAM (personal and professional), perceived client interest in CAM, and several attitude measures.

Results: The majority of participants (64%) were currently employed as public health professionals working in a wide variety of settings with highly diverse populations. Personal use of CAM was high (66% using four or more modalities). The majority also reported integrating CAM into work settings. There was a significant relationship between personal and professional use of CAM. Participants overwhelmingly agreed that more professional training in this area was needed.

Conclusions: This exploratory study provides insight into the potential role of CAM as an important resource in public health settings. Additional funding and research in this area is urgently needed.

INTRODUCTION

The mission of public health is to serve the physical, mental, and environmental health needs of communities and at-risk populations. According to the Association of Schools

of Public Health (ASPH), this mission is carried out “through the application of health promotion and disease prevention technologies and interventions designed to improve and enhance quality of life.”¹ Historically, the goals of public health have been pursued through specific activi-

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ties including: ensuring access to affordable and effective conventional health care, emergency preparedness, infectious disease control, and community health promotion.² Complementary and alternative medicine (CAM) is slowly making its way into this array. CAM treatments are being used in some pioneering public health clinics, such as the San Francisco and the Seattle–King County Health Departments where Chinese traditional medicine is integrated into community-based HIV treatment programs.^{3,4} Other examples include the use of acupuncture, meditation, and various mind–body therapies as important elements in addiction treatment programs, including the use of ear acupuncture in over 400 drug treatment programs and in 40% of drug courts.^{5–9} The benefit of CAM in public health contexts is that it may improve client satisfaction³ and provide for potentially more effective multidisciplinary approaches to treating complex, chronic health problems, such as HIV, chronic pain, and addiction.^{10–12} The integration of CAM may also increase access to potentially cost-effective services, many of which possess significant evidence of efficacy, provide for more culturally relevant services, and offer programs built upon an ethos of self-care and preventative lifestyles, such as cardiovascular disease interventions promoting the use of yoga, relaxation, and healthy diet.¹³

CAM use is becoming a significant and growing part of consumer health-seeking behavior. A recent national health survey of over 31,000 adults found that 36% of the respondents used CAM. That figure rose to 62% if prayer for health purposes was included in the definition of CAM.¹⁴ A new publication on CAM by the Institute of Medicine (IOM) similarly reported use to be widespread, with annual out-of-pocket expenses exceeding \$27 billion.¹⁵ In response to this increasing consumer demand, conventional medicine has initiated important changes. For example, many medical schools in the United States now offer CAM electives, CAM rotations for residents, and integrative medicine fellowships.^{16–17} In addition, hospitals and larger managed care systems are looking for innovative ways to integrate CAM services into their organizations.¹⁸

Although medicine has made progress in curricular and service responses to this interest in CAM, the response from public health has been far less pronounced. One review found only a small percentage of accredited schools of public health offering CAM courses in their curricula.¹⁹ A number of advocates have pointed to the need for more research to explore this relationship between CAM and public health and to overcome barriers that may stand in the way of their integration.^{20–22} Indeed, one reason for this limited response may be insufficient information on the role of CAM in public health–specific contexts. In an effort to begin investigating this issue, an exploratory survey was conducted. The purpose of the survey was to examine how CAM was being used by a sample of public health professionals (personally and in work contexts); to gather information on perceived client interest; and to document respondent opinions regarding the need for additional professional training within

public health degree programs. Information from this initial inquiry will provide the foundation for a larger, more sophisticated study to assess the needs for CAM-specific competency training within public health and ideally encourage more conversation within the public health community on this important topic.

MATERIALS AND METHODS

Participants

A convenience sample of 153 individuals at the 2003 American Public Health Association (APHA) annual meeting participated in a survey. The survey was distributed at talks organized by the APHA Alternative and Complementary Health Practices Special Interest Group (ACHP SPIG). Approximately 450 individuals attended the 2 days of talks. These talks were chosen because they were presumed to be the best forum for reaching public health professionals with a potentially high interest in CAM and who were currently using CAM products and services (personally and professionally). As such, it was hypothesized to be a cost- and time-efficient venue for capturing exploratory data on public health–specific CAM attitudes and behaviors from working professionals.

Outcome measures

A 19-item survey was used to collect information on demographics, types of CAM products, and services used (personally and professionally), types of clients served, perceived client interest in CAM products and services, and related attitudes about CAM. CAM behaviors were assessed by asking about current personal use of CAM products and services (Fig. 1). Survey participants indicated a use of up to 20 CAM resources. Participants also completed the same

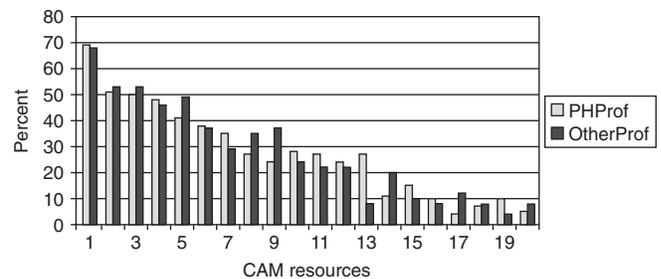


FIG 1. Personal complementary and alternative medicine (CAM) use. CAM resources: (1) massage; (2) meditation; (3) yoga; (4) relaxation; (5) herbal remedies; (6) prayer; (7) acupuncture; (8) spiritual practices; (9) chiropractic; (10) aromatherapy; (11) energy work; (12) acupressure; (13) Visualization*; (14) homeopathy; (15) other; (16) hypnosis; (17) biofeedback; (18) Ayurveda; (19) *tai chi/qigong*; and (20) osteopathy. PHProf, public health professionals; OtherProf, other professionals. (*Denotes significant difference $p < 0.05$).

list to indicate which CAM products and services they used or endorsed with clients. Related studies have also used approximately 20-item checklists.^{14,23} The majority of the items used for our survey were equivalent to those used in the Alternative Health/Complementary and Alternative Medicine supplement to the 2002 National Health Interview Survey.¹⁴ Finally, the survey assessed a number of attitudes, including the appropriateness of CAM for use with public health clients, the professional relevance of CAM in public health, and the need for additional training. Data analysis included standard descriptive statistics in addition to appropriate intergroup comparisons.

The survey was anonymous, self-administered, and included passive informed consent. It was filled out by 153 individuals, 34% of the approximately 450 attendees of the ACHP SPIG talks. Four (4) respondents who were employed outside the United States and 6 respondents who provided incomplete survey information were not included in the analyses, making a final sample of 143 participants. This study was reviewed and approved by the San Francisco State University Human Subjects Committee.

RESULTS

Participants' backgrounds

As one of the major objectives in this study was to examine the use of CAM in public health work contexts, the sample was separated into two groups: 92 (64%) who responded affirmatively to the item, "Are you currently working as a public health professional?" and 51 (36%) who responded that they were not. The participants currently working as public health professionals (PHP) were primarily female, Caucasian, mid-aged, and holding a Masters in Public Health (MPH) as the most common professional degree (Table 1). The participants in the two groups were not found to be significantly different in gender, age, ethnic

background, professional degrees, or work settings. However, the participants in the two groups differed significantly in relation to the populations they served, with the PHP group serving more people of all ages, ethnicities, and sociodemographic backgrounds. Demographic information provided by APHA depicted the general APHA membership to be more typically female, Caucasian, mid-aged, and with a significant percentage possessing MPH degrees.²⁴ In general, the surveyed convenience sample was similar to the APHA general membership with regard to ethnic background and the number holding MPH degrees but was somewhat younger and with a higher percentage of women (Table 1).

Participant personal and professional use of CAM

Personal use of CAM was examined using the entire sample. It was found that the vast majority of survey participants used CAM personally, with only 3% using no CAM modalities. Multiple product/service use was also high, with 66% using four or more modalities. Figure 1 presents the personal use of CAM for the two groups. The groups were not significantly different with respect to CAM use (except for more visualization use by the PHP group). The most commonly used modalities were massage, meditation, yoga, and relaxation (approximately 50% of the sample employed these methods). Herbal medicine, prayer and acupuncture were also common.

To examine the professional use of CAM (use with clients in public health settings), the PHP subset was used. These participants were asked if they had used or endorsed CAM with clients. They reported that they had done so: "Often or Very Often" (34%), "Sometimes" (35%), or "Never or Rarely" (31%). Integration of CAM into the work setting was done largely through educating clients about effectiveness or appropriateness (52%), making referrals to CAM resources (36%), or direct demonstration to teach specific skills (32%). Notably, the CAM modalities used in work set-

TABLE 1. COMPARISON OF PARTICIPANT AND APHA GENERAL MEMBERSHIP DEMOGRAPHICS

<i>Characteristics</i>	<i>PHP</i> (n = 92)	<i>Other</i> (n = 51)	<i>APHA membership</i> (n = 50,000)
Gender—Female	82%	80%	61%
Age (average)	43	41	52
Background			
Caucasian	65%	72%	63%
African-American	12%	14%	9%
Asian-American	9%	6%	6%
Hispanic	6%	4%	4%
Native American	2%	0%	1%
Mixed Ethnicity	6%	4%	17%
Degrees			
Public Health—MPH	47%	46%	42%
Other—CAM	0%	16%	Not available

APHA, American Public Health Association; PHP, public health professional; MPH, Masters in Public Health; CAM, complementary and alternative medicine.

tings were similar to those used personally. The most frequently reported CAM modalities mentioned in relation to the work setting were herbal preparations, massage, yoga, relaxation, meditation, and acupuncture (Fig. 2). Not surprisingly, although personal use of prayer was reasonably high, it was not commonly employed professionally. Participants' training (type of degree) was not related to the tendency to use CAM resources with clients. There was, however, a significant relationship between the amount of CAM resources used personally and the tendency to use CAM in work settings ($r = 0.34$; $p < 0.01$).

Client interest in CAM

The same subset of participants currently working as public health professionals was also asked to describe perceived client interest in CAM. They reported that clients inquired about or mentioned that they used CAM "Often or Very Often" (27%), "Sometimes" (32%), or "Never or Rarely" (41%). The specific work setting (e.g., hospital, university, health department) was not related to clients' interest in CAM. Neither were clients' age and socioeconomic background significantly related to their interest in CAM.

Participants' attitudes about CAM

For the analysis of attitude items, the entire sample of participants was used. The vast majority (94%) perceived CAM to be a preventative resource, with 76% stating that CAM was used for both preventative and treatment purposes, and 18% stating that it was primarily preventative. Only 6% viewed it primarily as a treatment. A great majority of participants stated that it was appropriate for public health professionals to discuss CAM concepts with clients (89%); that public health professionals should be more knowledgeable about CAM (94%); and that more CAM

training should be included in public health degree programs (92%). When compared, the two participant groups did not differ significantly on these items.

DISCUSSION

Among participants currently working as public health professionals (64% of the sample), there was a significant correlation between the number of CAM resources used personally and the tendency to use those resources in work settings. This parallels related research, which has shown that a physician's recommendation to patients to try CAM products or services is significantly associated with the physician's personal use of CAM.²⁵ The modalities most commonly reported for personal use by those working as public health professionals (massage, meditation, yoga, and relaxation) have been mentioned frequently in other large surveys of CAM use.^{14,26-28} Three of the top four modalities mentioned for personal use were also the most common resources used in work settings, and the use of herbal preparations, although reported as higher for clients, was also a common item for personal use among the survey respondents. Potentially, this use of CAM in work settings may reflect a commitment to specific practices resulting from the perceived or actual benefits derived from using such practices personally. The integration of CAM into work settings may be the natural outcome of this firsthand personal exposure, knowledge, and benefit.

CONCLUSIONS

This study provides preliminary insight into how CAM concepts and practices are currently being used by a sample of public health professionals and their clients. The majority of these professionals viewed CAM as a preventative resource. Considering how cancer, heart disease, diabetes, and other major illnesses are significantly related to lifestyle, teaching CAM self-care practices may prove to be an invaluable addition to the repertoire of "health promotion and disease prevention technologies and interventions."¹ To ensure adequate preparation in this area, public health degree programs need to integrate CAM into the graduate curricula. The participants in this study almost unanimously supported this notion, agreeing that public health professionals should be more knowledgeable about CAM and should receive more training in CAM modalities. The Association for Schools of Public Health (ASPH) specifies several core areas for training at the graduate level. ASPH states that training in the Behavioral Science/Health Education core should provide students "with skills to help people choose healthier lifestyles . . . and adopt effective self-care practices."²⁹ CAM fits clearly within this mandate. This preliminary investigation clearly suggests a need for a more comprehen-

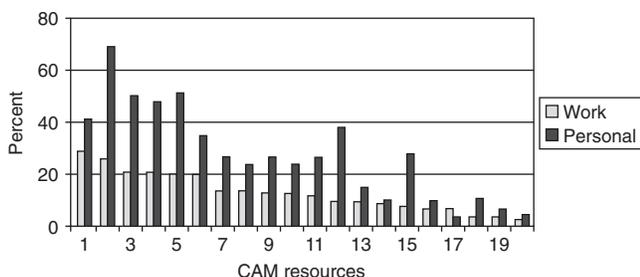


FIG. 2. Public health professionals use of complementary and alternative medicine (CAM). CAM resources: (1) herbal remedies; (2) massage*; (3) yoga*; (4) relaxation*; (5) meditation*; (6) acupuncture*; (7) visualization*; (8) acupressure; (9) spiritual practices*; (10) chiropractic*; (11) energy work*; (12) prayer*; (13) other; (14) *tai chi/qigong*; (15) aromatherapy*; (16) hypnosis; (17) biofeedback; (18) homeopathy; (19) Ayurveda; and (20) osteopathy. (*Denotes significant difference $p < 0.05$).

sive examination of key issues, including professional training. Funding earmarked for public health-specific CAM research is urgently needed.

Study limitations

The findings of this study were limited by the use of a participant convenience sample. Although clearly not representative of APHA membership or of public health professionals in general, the sample was seen as a relevant group of public health professionals, individuals with specific interests and experience with CAM, similar to a key informant pool. As such, it potentially offers insight into CAM use in work contexts that might be harder to obtain in a cost-effective manner from a random sampling of the general APHA membership. Although admittedly incomplete, the data provide a window into what CAM use in public health could be.

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