

The Use of Complementary and Alternative Medicine by Adults and Children in the South

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Abstract

A community of students, at different ranks, and two faculty members engaged in the development of a research project aimed at studying the consumption of complementary and/or alternative medicine (CAM) in the South. A well-established store in the community was identified for the study because of its focus on natural products and well-being. The students and faculty developed a CAM survey and the store owners provided feedback and gave approval to conduct the study on their patrons. The survey explored CAM use among adults and children in comparison to CAM uses in other regions of the country. Challenges and lessons learned from the engaged project are discussed, along with the findings that included family remedies and folklore recipes used in the South for varying ailments and symptoms.

Introduction

The use of complementary and or alternative medicine (CAM) is on the rise and becoming prevalent in the United States (Horrigan, 2009; Tindle, Davis, Phillips, & Eisenberg, 2005). CAM refers to various nontraditional medicine and healthcare systems, methods, or products that differ from those established by Western or allopathic medicine or allied providers (NCCAM, 2010). In the United States, approximately 4 out of 10 adults (or 38%) and 1 out of 9 children (or 12%) use CAM (NCCAM, 2010). However, between 33% and 75% of patients fail to disclose the use of such products and practices to their physicians (Blendon, DesRoches, & Benson, 2001; Chao, Wade, & Kronenberg, 2008; Eisenberg, Kessler, & Van Rompay, 2001; Robinson & McGrail, 2004). Reporting CAM use to physicians is important as in some cases CAM products, especially those ingested like herbs and supplements, may interact or interfere with standard care medicine.

Many CAM users cite dissatisfaction with conventional medical treatment and their unpleasant side effects as reasons for using CAM (Astin, 1998; Unutzer, Klap, & Sturn, 2000). Studies reveal that higher education is associated with increased CAM use (Eisenberg, Davis, & Etner, 1998). CAM use on children has been reported for conditions like cancer (Bishop Prescott, Chan, Saville, von Elm, & Lewith, 2010), asthma and epilepsy (Post-White, Fitzgerald, Hageness, & Sencer, 2008; Sawni, 2008), ADHD and autism spectrum disorder (Levy & Hyman, 2008). Most of the CAM studies have been conducted in the North Eastern and Western parts of the United

States, in Asia and in Europe. A review of the literature revealed few details about CAM use by adults and children living in southern parts of the United States. Research on CAM use in the South is of interest because of the region's economic and historic heritage, including greater poverty and rurality than the rest of the United States. These factors may be associated with a greater use of home remedies and/or CAM.

Community Engagement

As part of a year-long independent research experience, a faculty member with CAM research experience and an adjunct faculty who had CAM interest invited two undergraduate students and three graduate students (one at the master's level and two at the doctoral level) to participate in developing a survey study to exam CAM use in West Alabama, a region rich in Southern history and tradition. The group of seven members met weekly for one hour lab meetings. All of the members were affiliated with the Department of Human Development and Family Studies and had interest in conducting research on children and families. The desired student learning outcomes included to learn to 1) evaluate critically the research on CAM, 2) formulate research questions related to CAM consumption by the local community, 3) develop a survey to study the local community's consumption of CAM, 4) engage a local business in research, and 5) collect, analyze and interpret data from the CAM survey for dissemination.

The faculty members led the community of students through the research process in the weekly two-semester long meetings. For learning outcome

four, a natural foods grocery business/store was identified as a potential business for the research project. The store was an established fixture of the local community for over 30 years. Moreover, it was an ideal site for a CAM study because it had an excellent reputation for having quality products for promoting well-being and health, nutritional supplements, and a very large selection of herbs. The owners of the store were informed of the research concept and asked if they would be interested in having their store serve as the site for the study. The owners agreed and provided a letter of approval to conduct the study at their store. The survey was also shared with them and they provided feedback on the terminology and approved the survey that would be given to their patrons. The collaboration between the faculty members, the undergraduate and graduate students, and the owners of the store facilitated the development and conduct of a project aimed at examining CAM use among a subsample of residents living in a Southern town within a rural/urban county in the State of Alabama.

During the design phase of the study, under the supervision of the faculty members, the undergraduate students took the lead in conducting a literature review on CAM use in the South and writing and revising the questionnaire. The students also 1) developed sections of the Institutional Review Board (IRB) protocol, 2) created packets for the participants to complete, and 3) made sure that there were ample packets at the natural foods grocery store every week. The graduate students assisted with the development of the scoring and coding systems for the survey and mentored the undergraduate students in establishing the database and data entry system.

While the students and faculty preferred to approach potential participants visiting the store about participating in the study, the store owners felt that it was best to leave the surveys by the cashier so as not to bother the patrons. Given that this was our first attempt at developing a community study, we felt that it would be important to abide by, and be respectful of, the store owners' wishes not to disturb the patrons. The store owners purported that the store was patronized by residents from varying socioeconomic, ethnic and racial backgrounds living in West Alabama (Frances Self Drennen and Earle Drennen, personal communication, September 2009), which was very exciting for the students and faculty. Adults who elected to pick up the survey were asked to respond to questions on using CAM products on themselves or their children, their

disclosure to their doctors about CAM use, their use of CAM along with doctors' prescriptions, and the history of CAM use in their families. The survey was anonymous and the study received exempt status by the Institutional Review Board at the University.

After the completion of the data collection phase, the data were analyzed by the faculty and students. Data analyses were discussed at lab meetings with all seven members and the results were presented by the undergraduate students at the University's annual undergraduate research and creative activity conference. The findings were also shared with the owners of the natural foods grocery store.

The Community Being Studied

At the time of the study, the town where the study was conducted had a population of approximately 78,000 residents widely distributed, and a racial composition of approximately 54% Caucasian, 43% African American and 3% Other (U.S. Census Bureau, 2010). In that over 40% of the population is under 24 years of age, and two diverse racial groups (i.e., Caucasians and African Americans) prevail in the city, analyses were also planned to examine CAM use by age group (<24 and > 24) and race (Whites and Blacks). The U.S. Census reveals that 28.5% of the families in the county live below poverty. Of single-heads of households headed by women, 44.3% live below the poverty level. The median income for full-time males is \$31,614 and \$24,507 for full-time females.

Methods

Participants

Three-hundred packets, each containing a consent form, a background questionnaire and the CAM survey, were made available in the checkout area of the CAM store. Of the 300 packets that were taken by patrons at the store, 77 (or 26%) were completed and returned via mail. Adults who completed the packet ranged in age between 20 and 78 years of age (M age = 46; SD = 14.9). Ninety percent of participants were female, and 28% had either a high school degree or had not completed high school; 23% were college graduates; and 49% of the sample had professional degrees (i.e., had higher than a 4-year college degree). The majority of the participants were Caucasian (89.6%), 6.5% were African American, and less than 4% of the sample was comprised of Hispanics, Asians and others.

Table 1. Responses to CAM Survey

1. Buys CAM products for health maintenance or prevention of illness: 92.7% Products are purchased for self: 92.7% Products are purchased for child: 50%	Lymphoma Mood Nausea Pain Skin conditions Sugar control Vitamin deficiency Weight loss Yeast infections	9. % who responded true to following questions: If my child is sick, I first take him/her to the doctor = 8.5% If my child is somewhat sick, I try an alternative product first = 25.6% If my child is very sick, I first take him/her to the doctor = 87.9% If my child is very sick, I try an alternative product first = 12.1%
2. Buys CAM products for an illness or condition: 90.2% Products are purchased for self: 90.2% Products are purchased for child: 45.1%	5. Using CAM for: Nutritional support = 76.8% Because product was recommended by a trusted person = 36.6% Because tried before and product works = 61% Because prefers product to a medical prescription = 61% Because the doctor is too costly = 8.5% For other reasons = 20.7%	10. % who responded true to following questions: If I am somewhat sick, I first visit a doctor = 7.3% If I am somewhat sick, I try an alternative product first = 70.7% If I am very sick, I first visit a doctor = 75% If I am very sick, I try an alternative product first = 22%
3. Most common kinds of CAM products purchased Vitamins Probiotics Supplements Natural medications	6. % who said last CAM product purchased worked for a condition = 74.4% How well? 0% = not well at all 2.4% = somewhat well 15.9% = moderately well 18.3% = well 50.8% = very well	11.% who stated that in their childhood their parents used similar products to the ones participants purchased: To treat themselves (i.e., participants' parent) = 26.4% To treat the participant as a child or a sibling = 15.9%
4. Common conditions or illnesses treated with CAM Acid reflux Allergies or sinus infections Anemia Autoimmune disorder Blood pressure Boils Bone density Cold or flu Colon Dental conditions Digestion High cholesterol Hypothyroidism Inflammation Insomnia Liver Low sex drive	7. % who tell doctor they are using CAM product on Self = 55% Child = 20.7% 8. % who told doctor about CAM product use and doctor approved use for Self = 53.7% Child = 15.9%	12.% who regularly combine medicine prescribed by a doctor along with alternative products purchased = 51% 13.% who state that they are satisfied with the result(s) of using medicine prescribed by the doctor = 57.3

Measures

The packets included three IRB approved documents: A consent form, a demographic checklist, and the CAM survey. A self-addressed, stamped envelope was provided inside the packet for the participants to return to the investigative team. The Demographic Checklist asked participants to list their age and ages of their children. In addition, participants were asked to check off boxes that inquired about their gender (and their children's gender), their ethnicity, race, years in school completed (under 7 years; 7-9 years; 10-11 years; high school graduate; 1-3 years of college; 4-year college graduate; professional degree), their occupation and the occupation of the head of their household, if they were not the head. The years of school and occupation were used to compute the participants' socioeconomic status (SES) using the Hollingshead Two-Factor Index (Hollingshead, 1975).

The CAM Survey included in the packet was comprised of 13 questions, consisting mostly of checklist items and requests for brief responses.

The survey questions asked if participants used CAM on self and on children, and whether they used CAM along with doctors' prescriptions. The survey also briefly asked about the family history use of CAM. Additionally, participants were asked to list non-prescribed CAM products they commonly used and to describe a remedy used by their family over the years.

Results

The results of the participants' responses to the CAM Survey are presented in Table 1 as frequencies. Table 2 includes an exhaustive list of the family remedies reported by the participants.

The data were also analyzed for racial differences (Caucasians versus African Americans). The analyses revealed the following:

- 1) a trend for African Americans (60%) to report greater CAM use by their parents than Caucasians (23%), $X^2(1,69) = 3.22$, $p = .07$;
- 2) more African Americans (60%) than

Table 2. Non-Prescription Products Purchased for Health and Well-Being and Recipes Used by Families

Acidophilus for immunity or yeast infections	Cranberry for urinary tract Infection	Hot shower for sinuses	Scalding hot compress for itchy insect bite
Active yogurt for vaginal infection	Cultured milk for upset stomach	Hot tea with lemon or mint and honey for minor throat irritation or cough	Shots of fresh squeezed wheat grass for immune system
After shave lotion for insect bites	Eat celery for headache	Hot washcloths for headaches	Snorting salt water for runny or stuffy nose
Aloe for sunburns	Echinacea and elderberry with Vitamin C for colds	Ice for pain from swelling	Soak feet in Epsom salt for Colds
Aloe vera gel for sunburns/kitchen burns	Echinacea for colds	Ice for sprained ankles	Soda for insect bites
Aloe vera juice for acid stomach	Enzymes for food allergies and sinus headaches	Immune boosters (zinc and eucalyptus tea) for cold	Spoonful of honey for cough
Any acid for body wellness	Epsom salt for swelling, infection, and Inflammation	Kerosene on cuts	Spry Dental System for oral hygiene
Apple cider vinegar		Kumbucha for headaches	Steam bath for allergies
Apple cinnamon tea	Eucalyptus essential oil added to vaporizer for chest/nasal congestion	Lavender for calming or headache	Stinging nettle for allergies
Aromatherapy		Lavender oil on body for colds	Swiss Kriss for facials
Aspirin for wart removal	Gargling with hot salt forwater for sore throat	Lavender oil to sleep	Table salt for infections
Baking soda on wasp sting	Ginger ale for digestive issues	Lemon honey tea for sore throat	Tea for anything
Bee pollen for increased capillary function	Ginger and vinegar for upset stomach	Listerine and baby oil with water for cat's hot spots	Tea tree oil for insect bites/stings
Biotin for split nails	Ginger bath for colds	Listerine on scalp for dandruff	Tea tree oil for skin irritations
Black tea (cooled) for relief of conjunctivitis	Ginger for headaches	Lysine for canker sores	Tea with honey for congestion and sore throat
Blend of strawberries, avocado and cold pressed olive oil for skin facial	Ginger for upset stomach	Malic acid for fibromyalgia muscle spasms	Tobacco for insect sting
Blueberries for inflammation	Glass of water with teaspoon of cayenne pepper for sore throat/colds	Milk thistle for liver support	Tooth paste for acne
Calm thoughts for anxiety and depression	Glucosamine and MSM for joints	Mineral make-up for acne	Tooth paste for bee/wasp sting
Candling for ear wax maintenance	Gold Bond skin therapy lotion for mild psoriasis	Mint tea for upset stomach	Tooth paste for skin burns
Castor oil	Green soap for poison ivy	Nail polish for chigger bites	Umcka for respiratory symptoms
Catnip tea	Green tea for healthy body and weight control	Netti pot and sea salt irrigation for sinus infections	Vitamin E and local honey for antibiotic on cuts
Cell food	Green tea with honey for sore throat	Peppermint oil for headaches	Vitamin E for cuts or mouth sores
Cherry extract	Himalayan salt in purified water for body hydration	Probiotics for immunity	Wet tobacco on stings or bug bites
Chicken broth for colds	Honey and ginger for dizziness	Probiotics for staying well	White vinegar for nail fungus
Cinnamon and garlic for cholesterol and blood sugar	Honey for allergy elimination	Red grapefruit juice with castor oil and salt and pepper	Whole foods for a healthy body and great figure
Clay for insect bites	Honey for sunburn/kitchen burn	Rosemary in hair for healthy hair	Wild impatiens for poison ivy
Coconut oil for immune system boosting and weight loss		Saline rinse for nasal passages/congestion	Yoga for cold
Coconut water for post exercise rehydration		Salt water for sore throat	Yogurt for stomach problems
Cod liver oil			
Co-Q10 for gums and heart			

Caucasians (15%) reported that CAM products were used on them when they were children, $X^2(1,65) = 6.21, p = .01$;

- 3) a trend for more Caucasians (58%) than African Americans (20%) reporting currently combining medicine prescribed by their physicians with CAM, $X^2(1,69) = 2.72, p < .10$; and
- 4) a trend for more African Americans (100%) than Caucasians (64%) to purchase CAM products for self-use, $X^2(1,71) = 2.75, p < .10$.

Analyses were also conducted to examine age differences. However, no significant age differences were found for any of the survey questions.

Discussion

The current study was a first attempt by our group to conduct a community project focused on the use of complementary and alternative medicine (CAM) by residents of a Southern town in the United States. The paucity of CAM research on people living in the Southern United States and the high poverty and rurality of the South provided the impetus for the study. The community included faculty at a university, undergraduate and graduate students, the owners of a natural grocery store in town and their patrons. The process of engaging in a community project was interesting as were the research findings. Below we discuss the research findings, the successes and challenges of the engaged scholarship activity, and thoughts on how

to improve the process of community engagement to study CAM practices in the South.

Surprisingly, only 25% of the 300 individuals who picked up the survey packets returned the forms by mail. This return rate is well below the average response rate of 50-60% that has been reported in the literature for mail surveys (Hoonakker & Carayon, 2009). The lower return rate for our study may relate to the topic being studied. That is, some individuals may have been reluctant to reveal their use of CAM products, or may not be CAM users and thereby felt no need to respond to the survey. Another possibility for the low response rate may be that people in Alabama may be suspicious of participating in research. The Tuskegee Syphilis Study, the U.S. Public National Health study which involved unethical research practices of rural African American men, was conducted in Alabama and spanned 40 years. The failure to protect and fully inform individuals participating in research of alternatives in the Tuskegee experiment resulted in the Belmont Report and the establishment of stricter guidelines to monitor the ethical conduct of research in the United States (Thomas & Quinn, 1999). Although the Tuskegee experiment was stopped in the 1970s, the unethical nature of the study is common knowledge in the State of Alabama, which may in turn make some African American residents of Alabama hesitant about participating in research. Another reason for the low response rate may have related to illiteracy rates, which average about 15% for Alabama and in the county in which the study was conducted (U.S. Department of Education, 2010).

As a result of the low response rate, the student researchers discussed the need for future studies on CAM use to be conducted via in-person interviews or via oral surveys. Students also suggested that barriers to participation should also be examined. Anecdotally, one checkout clerk at the CAM grocery store reported to one of the undergraduate research students that most of the individuals who picked up the survey were Caucasian and middle class and that African Americans and other ethnicities either refused or were reluctant to take a survey packet. This supports the perception that minorities in Alabama may be less likely to participate in research. A focus group that includes African-American community members would be important to conduct in any follow-up study to ensure that their voices are heard and to understand potential barriers, if these exist, to participating in research.

While we were hoping to have more representation from African Americans, we found that the majority of the respondents (9 out of 10) were Caucasian women. Both the female gender and non-black/non-Hispanic race have been reported as factors associated with the highest rates of CAM use in the United States (Tindle, Davis, Phillips, & Eisenberg, 2005). Thus, the demographics of CAM users in our survey study were similar to those reported in the United States.

Greater than 90% of the respondents in the present study reported that they purchased CAM products to prevent as well as to treat their own illnesses. In addition, about 50% of the respondents revealed that they purchased CAM products to prevent and to treat illnesses in their children. These findings suggest the prevalent use of CAM, by families in our sample, for health prevention and treatment. Although these findings will need to be replicated with a larger sample size they may indicate that CAM use in the South is greater than common practice.

Remarkably, less than 20% of the participants who completed the survey reported that their parents used CAM on them as children. If this finding is accurate and replicable with a larger sample size, it would suggest that CAM use may be increasing among younger generations of Caucasians living in the South. This finding also suggests that CAM use by the participants in our study may not be related to the passing of CAM information from the previous generation.

In contrast, among the African Americans who responded to the survey, 60% stated that their parents used CAM on them as children. Unfortunately, few African Americans responded to the survey in our study. Thus, we could not examine age and socioeconomic status effects on CAM use among African Americans in our sample. One hypothesis to be tested in future research is whether CAM use in the South is more prevalent among lower versus higher income African Americans. We suspect that in the South, CAM use among African Americans may be greater for lower income individuals who may have less access to western medicine or less desire to access western medical care. Additionally, it is unclear if the African Americans who participated in the current survey are representative of the general population of Blacks in the South. However, if the findings are upheld and African Americans living in the South pass down their CAM use across generations, this would be of interest and importance given

that African Americans, especially in the South, are reported as distrusting of the medical community, and among the lower income Black, there is a resistance to seeking routine preventive care (Thomas & Quinn, 1999). A future study is required with larger sample sizes of elderly and African Americans to study complementary and alternative medicine practices across generations. In that future study, specific efforts should be made to conduct a focus group with African Americans in the community to discuss how best to approach and invite them to participate in a CAM survey study.

According to the survey, the most commonly purchased CAM products were vitamins, probiotics, supplements and natural medications. At least one large scale study reported herbal medicine to be the most commonly used CAM modality (Tindle, Davis, Phillips, & Eisenberg, 2005). In the current study, respondents listed numerous medical conditions that they treated with the CAM products they purchased, including autoimmune disorders, blood pressure, sinus infections, bone density, high cholesterol, liver conditions, skin conditions, and glucose control, to name a few. Additionally, participants listed various psychological and psychosomatic conditions and symptoms that they treated with CAM products, including low sex drive, mood, insomnia, weight loss, nausea and pain.

Almost two-thirds (61%) of the respondents who completed the survey stated that they preferred their CAM product to a medical prescription. Approximately three-quarters (74%) of the participants stated that the last CAM product they purchased worked for a condition. Interestingly, less than 10% of the participants listed the cost related to a doctor's visits as the reason for using CAM products. Thus, it appears that a large majority of the participants in our study were choosing to self-treat medical and psychological conditions or symptoms with other than traditional western medicine, and their decision to self-treat was not as a result of unaffordable medical care.

Although over 90% of the participants reported using CAM products, only about half of the respondents stated that they informed their physician of their CAM use. This rate is much lower than the 60-70% rate of non-disclosure to physicians of CAM use that has been revealed in national surveys (Eisenberg, Kessler, Van Rompay, et al., 2001). In our sample, only about one in five reported informing their children's pediatrician that they

were using CAM products on their children. Of those who reported their CAM use to their physician, approximately half reported that their doctors approved of their CAM use. Somewhat alarming, parents reported that only one in ten pediatricians approved of the CAM product that they were using to treat the children. There is a trend at the national level in the United States to educate physicians (and medical students) about CAM use, as well as to challenge physicians to improve the physician-patient communication as an effort to improve their patients' CAM disclosure (Chao, Wade, & Kronenberg, 2008). It might also be important to conduct a focus group to engage the medical community, particularly African American physicians, who might be able to reveal general information about CAM conversations they have had with their patients.

Of interest were the responses to what was the first treatment that adults used on themselves and on their children in times of sickness. In the current study, 7 out of 10 adults tried a CAM product first before contacting the doctor if they were "somewhat sick." However, if they were "very sick," 8 out of 10 adults visited the doctor before trying a CAM product. When it came to their children, 1 out of 4 adults tried a CAM product first if the child was "somewhat sick." However, 9 out of 10 adults stated that they took their child to the doctor if the child was "very sick." About half of the participants stated that they regularly combined CAM products with medicine prescribed by a doctor. Approximately, over half of the sample stated that they were satisfied with the results of medicine prescribed by their doctor. The high rate of CAM use, even for treating children's illness, may relate to the increasing dissatisfaction with allopathic medicine (e.g., traditional medicine practiced in the United States) as opposed to integrative health care systems. Because the study was completely anonymous, we have confidence that the data reported by the adults and parents are fairly reliable.

Finally, the CAM recipes or favorite products listed by participants revealed an interesting array of natural products, herbs, and common household ingredients used to treat a myriad of conditions, symptoms, common ailments and afflictions. Unfortunately, some of the respondents failed to elaborate on the products that they listed. A future interview or in-person study would likely yield a more comprehensive list of remedies and offer an opportunity to collect a richer database of folklore treatments.

Limitations

The current survey study of CAM use in a Southern town in the United States is limited, as discussed above, because of the small sample size, the possibility of a biased or self-selected sample and the lack of participation by an African American majority. Additionally, the CAM survey made no inquiry of use of other CAM forms, such as alternate health care systems and practices. A future study might specifically ask respondents about their access to and use of such CAM as whole medicine systems (e.g., Ayurvedic medicine, traditional Chinese medicine, homeopathy and naturopathy), mind-body medicine (e.g., yoga, meditation, acupuncture, tai chi, etc), manipulatives and body practices (e.g., massage therapy, chiropractics), as well as light therapy, energy healing, magnet therapy, and movement therapy. This would help to reveal a more comprehensive view of CAM use in the South. In this study, participants were not asked to indicate where they were born and raised. Collecting this information in a future study might indicate CAM use trends among true Southerners. Finally, the findings revealed the need to better engage African Americans in all aspects of research, including at the idea and design phases of research.

Conclusions and Lessons Learned

In sum, the current pilot study, although limited by sample size and selection bias, provides a preview of possible community-based research that can be conducted on CAM use. Alabama, like its sister states of Mississippi and Louisiana to the west and Tennessee to the north, is steeped in culture and tradition. One reason for conducting CAM research in the South is to further examine the potential finding from the current study that CAM use may be increasing among younger generations of Caucasians. Another reason is to gain knowledge about CAM use by African Americans, who may be more likely to purchase and consume CAM than traditional Western medicine (aka as allopathic medicine or mainstream medicine). Knowing more about CAM use in the South and CAM disclosure may be helpful in developing educational modules on CAM for both physicians and patients. However, to learn about CAM use in the South it is imperative to engage members of the community in the design and conduct of research. In the current study, we engaged store owners of a local natural foods grocery store where CAM products were sold. In our first study with them, it was

important to develop trust. Thus, we followed their suggestion of having patrons of their store pick up the packets at the cash register and complete them on their own as opposed to having the survey administered to the patrons by a student researcher. As a result of this, we had few African Americans or other minority groups participate. Although we had limitations related to sample selection, we are grateful to the owners of the natural foods grocery store to permit us to conduct the survey with their patrons as without the store owners' permission, we would not have secured the interesting data we collected and reported in our tables. In a future study, one way to potentially engage the African American community is to involve African American students in the research and to seek alternative sites for conducting CAM research, such as through faith-based programs.

Overall, with faculty mentoring, this project met the desired student learning outcomes of: developing a community project in which students evaluated the literature on CAM; formulating research questions and a survey to assess the community's CAM use; engaging a local business in research, and; collecting, analyzing and interpreting the data for dissemination. Lessons learned included that 1) students can be engaged in meaningful research experiences from the conception to the dissemination of research related to the study of CAM practices in their community; 2) owners of local establishments may be willing to participate in research and can provide feedback on research concepts. (However, there are limitations that may be placed on research by local establishments that may present a barrier, e.g., not being able to speak directly to potential participants); 3) Caucasian women are likely to complete surveys, whereas African Americans and other minorities may be less likely to follow-through on completing surveys, although this needs to be verified through additional research; 4) CAM consumption exists in the South and this phenomenon has similarities and differences in how CAM consumption in other areas of the country; and 5) community engagement at different levels (e.g., student, business, patrons) may be critical to the conduct of research to help fill gaps in the literature related to common practices and beliefs about health treatments.

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