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## DISCLOSURE TO PHYSICIANS OF CAM USE BY BREAST CANCER PATIENTS: FINDINGS FROM THE WOMEN'S HEALTHY EATING AND LIVING STUDY

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### Abstract

**Background**—Physician awareness of their patients' use of complementary and alternative medicine (CAM) is crucial, particularly in the setting of a potentially life-threatening disease such as cancer. The potential for harmful treatment interactions may be greatest when a patient sees a CAM practitioner – perceived as a physician-like authority figure – but does not disclose this to their physician. We therefore investigated the extent of nondisclosure in a large cohort of cancer patients.

**Methods**—We investigated CAM use in participants of the UCSD Women's Healthy Eating and Living (WHEL) Study, a multicenter study of the effect of diet and lifestyle on disease-free and overall survival in women ages 18–70 who had completed treatment for invasive breast cancer between 1995 and 2000. Data regarding CAM use and disclosure was collected via a telephone-administered questionnaire in 2003–2004. This questionnaire asked about different CAM modalities including those requiring a “skilled CAM practitioner” (acupuncturist, chiropractor, homeopath, or naturopath) for administration. Demographic data was obtained at the WHEL baseline clinic interview. Modality-specific disclosure rates were determined and a comparison of demographic variables of disclosers versus nondisclosers was conducted using Chi-squared tests for categorical variables, and t-tests for continuous variables.

**Results**—Of 3088 total WHEL participants, 2527 completed the CAM questionnaire. Of these, 2017 reported using some form of CAM. Of these, 300 received treatment from an acupuncturist, chiropractor, homeopath, or naturopath and also provided information on whether or not they disclosed this care to their conventional physician. The highest disclosure rate was for naturopathy (85%), followed by homeopathy (74%), acupuncture (71%), and chiropractic (47%). Among

demographic characteristics, only education ( $p = 0.047$ ) and study site ( $p=0.039$ ) were associated with disclosure. College graduates and postgraduates, in particular, were more likely to disclose CAM use to their physicians than those with lesser education.

**Conclusion**—Overall, we observed moderately high rates of physician disclosure of CAM use for all modalities except chiropractic. Education and study site associations suggest that disclosure may be greater when CAM use is more prevalent and possibly more socially accepted. These findings underscore the importance of open, destigmatized patient-physician communication regarding CAM use.

### Keywords

Breast cancer; CAM; complementary and alternative medicine; acupuncture; naturopathy; chiropractic; health communication; disclosure

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## BACKGROUND

Breast cancer is the most commonly diagnosed female malignancy and the number of breast cancer survivors is increasing each year. In 2005, 182,460 women in the U.S. were diagnosed with breast cancer, and approximately 2.4 million women were alive who had a history of breast cancer.<sup>1</sup>

Breast cancer survivors are increasingly using complementary and alternative medicine (CAM) in addition to chemotherapy or radiation therapy.<sup>2</sup> Prevalence of CAM use is high: 62% of 2,022 breast cancer survivors in the Nurses' Health Study reported using CAM<sup>3</sup> and 66% of 551 survivors participating in a Portland-based telephone survey reported using CAM.<sup>4</sup> In an earlier, small 1997–98 Canadian study of breast cancer survivors, 67% reported using some form of CAM.<sup>5</sup> In the Portland-based study, patients reported that CAM helped them feel more in control, strengthen the immune system, prevent recurrence, reduce stress and improve their quality of life. Given that these women tended to be satisfied with their conventional medical care and to trust and to feel “listened to” by their doctors, their CAM use did not reflect displeasure with the conventional care they were receiving.<sup>4</sup>

Reasons for the increasing popularity of CAM are not fully understood, but several factors may be playing a role.<sup>6–7</sup> In part, this growth may represent a cohort effect: a recent study found that CAM was most popular among those aged 40 – 64 years,<sup>8</sup> a group accruing more health problems as they age. Other factors postulated include a growing dissatisfaction with the impersonality of traditional medical care (and desire among patients for shared decision-making with the care providers), the inability of conventional medicine to solve chronic health problems, or the growing number of Internet postings attesting to the effectiveness of CAM.<sup>9</sup> And some have even proposed that the growth of CAM may reflect the rising cost of conventional medical care.<sup>10</sup>

Because the risk of breast cancer increases with age<sup>11</sup> and we are faced with an aging population, the absolute number of new cases will likely increase over time. In addition, as therapies continue to improve, survival time will also increase. As a result, it is probable that the prevalence of breast cancer will continue to rise. Coupled with the increasing interest in CAM, it can be expected that more and more women with breast cancer will employ CAM therapies or consult with CAM practitioners.

Along with the growing interest in and use of CAM, there has been an evolving recognition that it is imperative to foster open and nonjudgmental communication about CAM use between patient and physician. Without awareness of their patients' CAM practices, physicians may be lacking information to anticipate or recognize potential adverse events owing to CAM use.

Conversely, their ability to guide or support their patients in combining CAM and conventional care, and the possible benefits of this integration, may be compromised. Physician awareness of patient CAM use is particularly crucial in the context of a conceivably life-threatening disease such as cancer. Given the pertinence of this information, it is essential that barriers to open communication regarding CAM use be lowered or eliminated and that patients feel comfortable disclosing CAM use to their physicians.

### Patient-physician CAM communication

The importance of patient-physician discussion of CAM is particularly important when it revolves around breast cancer, a condition that selects for a population of older, white, non-Hispanic women<sup>12</sup> who are also more likely to be CAM users.<sup>8</sup> Open communication regarding CAM takes on even greater significance when breast cancer patients are seeing CAM practitioners in addition to their physician. This is because the greatest potential for conflicting treatments may occur when a breast cancer patient consults a CAM practitioner but does not inform her conventional physician.

Lack of CAM disclosure has practical costs. Several CAM modalities could potentially cause harm, require temporary changes in conventional treatment, or need to be modified temporarily during periods of conventional treatment. In the absence of proper disclosure, a patient might pursue concomitant CAM and conventional treatment approaches that are in conflict with one another. There are many situations in which CAM and conventional recommendations or treatment goals could be in conflict. A widely reported concern involves herb-drug interactions. Although such interactions in some cases may be beneficial, many interactions may increase drug toxicity or even result in fatality.<sup>13</sup> Various herbs, recommended by CAM practitioners for a range of complaints or indications, have been shown to alter the metabolism of prescribed pharmaceuticals, to introduce toxic contaminants, or to be inherently toxic.

In addition to the use of herbs, other CAM modalities could be problematic, including non-herbal dietary supplements, particular foods, specialized diets, acupuncture and massage therapy. Supplements could be contaminated with a dangerous substance. For example, an outbreak of eosinophilia-myalgia syndrome (EMS) was traced to a contaminated synthetic version of the amino acid L-tryptophan produced by a single manufacturer. As a result, the use of L-tryptophan as a dietary supplement was discontinued in 1989.<sup>14</sup> A lack of communication may not only permit potential dangers resulting from CAM use – such as harmful herb-drug interactions or toxic contamination of supplements – to go undetected, it may also deprive the patient of critical physician support or even lead to the raising of unnecessary alarm. For example, cancer patients who consume plant-based or vegetarian diets may lose weight if the diet results in decreased energy intake, leading to a reduction of adiposity that may improve prognosis. However the patient or her unapprised physician might confuse such changes with cachexia, a late sign of metastatic disease in which cancer preferentially exacts nutrients from and starves the host, resulting in unintended weight loss. Conversely, open communication could have led to anticipation of and reassurance regarding such weight loss.

One of the largest studies to examine rates of physician disclosure of CAM use found that of the 5787 adults who used herbs or supplements during the previous 12 months, only one-third relayed this information to their physician.<sup>15</sup> Similarly, a review of 12 smaller studies evaluating physician disclosure of CAM use. found that disclosure rates varied from 23% to 90% and nondisclosure from 12% to 72%.<sup>16</sup> Interestingly, one of the 12 studies reported a disclosure rate of 90% for patients attending a clinic where the physician also practiced a form of CAM, but a disclosure rate on only 67% for respondents who attended a clinic where the physician did not also practice CAM.<sup>17</sup> The authors credited discrepancies between lowest and highest rates to differences in study design, the populations surveyed, and the types of CAM included in the studies under review. However, it should also be noted that this review listed

rates of disclosure vs. nondisclosure as originally published in the individual studies. Because the majority of studies did not indicate the proportion of respondents answering questions regarding disclosure, it is important to consider nonresponse bias when interpreting these results.<sup>16</sup>

In reviewing cancer-specific studies of disclosure among CAM users, one study of cancer patients using at least one form of CAM found that 57% of 752 individuals disclosed this information to either their oncologist or primary physician.<sup>18</sup> However, those disclosing the use of at least one CAM therapy did not necessarily discuss all the modalities they were using; in contrast to the 2002 NHIS CAM survey,<sup>15</sup> this study found that 72% of the 149 patients using megavitamins and 74% of the 168 using herbal remedies disclosed this information to one of their physicians.

In research studies of breast cancer patients using CAM, one study<sup>5</sup> reported a nondisclosure rate of 43% (n=35) and another<sup>19</sup> a disclosure rate of 33% (n=86). Finally, a third study<sup>20</sup> found that 48% of the 379 patients used CAM and of these, one half shared this information with their physicians. However, the latter study did not provide actual numbers.

### Reasons for nondisclosure

The main reasons for patient nondisclosure include fear of a negative response from their physician<sup>21–22, 16</sup>, a perceived sense that the physician is indifferent or opposed to CAM use or requires scientific evidence<sup>21</sup>, a belief that the physician does not need to have this information, i.e., it is irrelevant to the conventional treatment course, or simply because the physician fails to ask about CAM use.<sup>16, 22</sup> Patients may not be aware they are using a CAM therapy; they may believe that using herbs and prescribed medicine concurrently is harmless, especially when used for a different health problem, that the physician has no knowledge of herbs, that the physician may be unfamiliar with CAM; or they may not have sufficient confidence in their physicians.<sup>22</sup> The type of CAM therapy used may also influence disclosure.

Patients may not disclose their CAM practitioner visits to physicians for several reasons. They might perceive such therapies as insignificant or irrelevant to their conventional care. The patient may hesitate to indicate she is seeking a second opinion because the physician could view this as an insult, a criticism of the physician's care, implying that she questions her physician's approach, finds the care inadequate, or might decide not to comply with clinical recommendations.

Such a breakdown in communication may have adverse consequences above and beyond those identified above. It could lead to incomplete compliance with conventional care if the patient feels alienated by her sense that the physician does not fully understand her or embrace her belief system. This alienation may also lead to reduced self-care.

### Goals of the present study

Given the trends of growing CAM popularity and increasing number of breast cancer survivors, it becomes ever more important to further identify the extent of and reasons for nondisclosure among breast cancer patients. We believe that the possibility of conflicting recommendations or treatment is likely to be the greatest when a patient regularly consults with or visits a CAM practitioner concurrently with her conventional doctor. This is because the CAM practitioner – someone that the patient may perceive as a physician-like authority figure – may recommend or render treatment that could potentially compromise or be in conflict with conventional treatment.

With this in mind, we investigated the level of CAM disclosure in breast cancer survivors who participated in the Women's Healthy Eating and Living Study, a randomized controlled trial

of the effectiveness of dietary change in reducing additional breast cancer events and early death in women with early-stage invasive breast cancer. Our goal was both to determine the extent to which patients disclosed to their physicians that they were also receiving care or treatment from CAM practitioners and to identify any factors that may have been associated with greater or lesser disclosure of this care.

## METHODS

### Participants

This report considers breast cancer survivors participating in the Women's Healthy Eating and Living (WHEL) Study, a large multi-institutional randomized trial designed to test whether dietary pattern influences breast cancer events. Between March 1995 and November 2000, the WHEL Study enrolled 3088 women between the ages of 18 and 70 who had completed treatment for early stage breast cancer within the preceding four years. Details of the study design and cohort characteristics have been published.<sup>23</sup>

### Data Collection

The WHEL Study collected information on CAM use via a telephone-administered questionnaire between January 2003 and May 2004. This questionnaire asked about different CAM modalities, itemizing 22 types that included the following broad designations established by the National Center for Complementary and Alternative Medicine: (1) alternative medicine systems, (2) mind-body therapies, (3) biologically based therapies, (4) body-based therapy, and (5) energy therapy.

For each modality, participants were asked the following series of questions and could check all answers that were applicable: (1) whether they had used that modality, and if used, whether that use was for cancer, for the side effects of cancer therapy and/or for reasons unrelated to cancer, (2) whether the modality was used during treatment or after treatment and if it was being used at the time of the survey, (3) whether or not they had consulted with a CAM practitioner, and (4) if a modality was used for cancer and/or for the side effects of cancer, whether or not they discussed their use of that modality with their physician.

Our study focused on modalities that required a "skilled CAM practitioner" for administration. We defined skilled CAM practitioners as including acupuncturists, chiropractors, homeopaths, and naturopaths. These individuals are widely regarded as the equivalent of alternative primary care physicians, i.e., predominantly highly-trained individuals, typically having completed a 4-year course of study from an accredited professional school, and often able to qualify for third-party reimbursement from insurers. Note that while not all homeopaths have such extensive training, they have traditionally been allopathic or naturopathic practitioners who received additional training after completing their medical or naturopathic training.

The WHEL Study collected detailed data on dietary supplement use at multiple timepoints when dietary intake was assessed throughout the study. WHEL Study participants were extensive users of dietary supplements, as reported in detail previously.<sup>24–25</sup> Supplement use included herbals, and was investigated to provide a more precise estimate of vitamin, minerals, and phytonutrient intake. However supplement use was not our focus and the WHEL CAM Questionnaire did not include questions on dietary supplement use.

For each modality used, participants were asked whether they had informed their physician about their usage. For the four modalities that are the focus of this paper (homeopathy, acupuncture, naturopathy and chiropractic), we classified participants as "full disclosers" if they reported having informed their physician about their usage of all of the modalities they were using, and as "nondisclosers" if they reported having not informed their physicians of

their usage of any of the four modalities they were using. Finally, we classified those who used more than one of the four modalities but did not disclose all use as “partial disclosers.”

Demographic data was obtained at the WHEL baseline clinic interview. All breast cancer diagnoses were confirmed with medical records.

### Statistical analysis

A comparison of demographic variables of disclosers versus nondisclosers was conducted using Chi-squared tests for categorical variables, and t-tests for continuous variables. All analyses were performed in SPSS 11.0.1 (SPSS, Inc.).

## RESULTS

Of 3088 total WHEL participants, 2527 completed the CAM Questionnaire. Of these, reported using at least one CAM modality for any purpose:

- 537 used acupuncture, 196 (36%) for cancer-related reasons)
- 786 used chiropractic, 66 (8%) for cancer-related reasons)
- 325 used homeopathy, 119 (37%) for cancer-related reasons)
- 251 used naturopathy, 148 (59%) for cancer-related reasons)

Overall, 377 participants reported having used at least one of the four CAM modalities for cancer-related reasons. Considering all four modalities, 28% of the CAM use was for cancer-related reasons. After excluding 76 participants who indicated that they had not seen a practitioner of these modalities, 301 women (who had together used 415 CAMs) who used CAM for cancer-related reasons remained for analysis. Of these, 211 used one of the four modalities; 70 used two, 16 used three and four used all four.

Three hundred participants provided physician disclosure information. Of these, 66% (n=198) disclosed all of the modalities used, 28% (n=85) disclosed none of the modalities used, whereas 6% (n=17) disclosed use of some modalities but not others (the partial disclosure group). Our demographic comparison considers the 94% (n=283) of participants who were full disclosers or nondisclosers. We excluded the partial disclosure group from the demographic comparisons because of small cell sizes, rather than add them to the full- or nondisclosure groups since this arbitrary allocation may have introduced bias.

The timeframes in which participants used the four modalities and the disclosure rate for each modality are presented in Table 1. For example, of the 180 women who used acupuncture for cancer, cancer related side-effects or both, 74% of them used it during cancer treatment, 75% used it after the treatment, and 40% were using it at the time of the survey. Of these 180, 71% communicated this information to their physician. Acupuncture was the most often used modality (60%) and chiropractic was the least used (18%). Use of all four modalities was more common during and after cancer treatment than at the time the women were surveyed. Chiropractic was used more often after cancer treatment (90.7%) than during treatment (70%) and almost the same proportion of women who had been using chiropractic during treatment were using it at the time of the survey, often years later. The pattern of homeopathy use was similar to acupuncture use, with rates roughly equivalent during and after treatment, then decreasing appreciably by the time of the survey. Naturopathy use increased marginally after cancer treatment then dropped by the time of the survey, though to a somewhat lesser degree than acupuncture and homeopathy. The highest disclosure rate was for naturopathy (85%), which was almost twice as high as the rate for chiropractic (47%), the lowest of the four modalities. The rates for acupuncture and homeopathy were 71% and 74%, respectively.



Demographic characteristics and disclosure rates of the 283 CAM full disclosers and nondisclosers are presented in Table 2. The two characteristics associated with physician disclosure were education ( $p = 0.047$ ) and study site ( $p=0.039$ ). College graduates and postgraduates were more likely to disclose CAM use than those with lesser education. None of the other characteristics demonstrated a statistically significant relationship with disclosure.

## DISCUSSION

This study examined breast cancer survivors' use of CAM practices and physician disclosure of this treatment, focusing on four groups of CAM providers who could be considered alternative primary care physicians, namely acupuncturists, chiropractors, homeopaths and naturopaths. Overall, we found a high rate of disclosure compared with other studies. One possible explanation, as shown in the results, is that WHEL participants were highly educated. Another is that the WHEL Study, given its plant-based dietary intervention, was CAM-like in nature. Thus, it may have selected for a more CAM-oriented population who were more likely to communicate this information to their physician. Yet a third possibility is that the WHEL Study was conducted in a region, the southwestern U.S., in which CAM is more widely used and a higher baseline level of patient-physician CAM communication already exists. However, approximately 28% did not relate any of their visits to CAM practitioners to their physician or only partially disclosed such; that represents a significant proportion of patients who lose the potential benefits that disclosure confers.

Disclosure of chiropractic was lower than that for other modalities. This might be because the vast majority (92%) of the patients who saw a chiropractor did so for reasons (e.g. low back pain) unrelated to breast cancer and felt it was irrelevant to their clinical care. Because the proportion of those using chiropractic was almost as high at the time of the survey as during treatment, we speculate that the chiropractic relationship may have been long standing and preceded diagnosis of breast cancer.

When considering those modalities that commonly require the involvement of CAM practitioners (acupuncture, chiropractic, homeopathy and naturopathy), CAM users did not share common demographic characteristics that predicted disclosure except for education and participation at the Portland, Oregon WHEL Study site. Perhaps disclosure status was more likely related to physician characteristics (e.g., impression of physician disinterest), how the patient imagined her physician would react (e.g., anticipation of a negative response) or such intangibles as the amount of time permitted for a visit.

Consistent with literature on more general disclosure, it was expected that education level would be positively associated with disclosure.<sup>26</sup> The differences in site-specific disclosure rates may relate to geographic differences in CAM use, i.e., disclosure may be greater in those areas where CAM is more widely used and lower in those locales where its use is less common. This supports the notion that increased awareness and a lack of stigmatization in the general public may increase the likelihood that patients feel more comfortable disclosing use of CAM. In this case, physicians would also be more likely to invite discussion of CAM and to convey acceptability of its use.

To better understand the reasons for nondisclosure and what they refer to as “the communication gap,” Richardson et al<sup>27</sup> compared physicians and patients on their perceived reasons for nondisclosure of CAM use. They found that physicians and patients had different responses on reasons for nondisclosure. Physicians thought that patients (1) perceived CAM discussions were unimportant and (2) believed that physicians would not understand, would discontinue treatment, or would discourage or disapprove of the use. Patients, on the other

hand, felt reluctant to disclose due to their uncertainty of the benefit of disclosure and because their physicians never inquired.

Clearly, nondisclosure is problematic. CAM modalities may have adverse effects in the presence of conventional treatment and this may necessitate either altering conventional treatment decisions or suspending or modifying CAM therapies, at least temporarily. Disclosure, conversely, may confer significant benefits. It may encourage the physician to achieve a more optimal, integrated package of health-related services and thereby promote a more favorable clinical outcome and quality of life.

A more responsible integration of conventional and complementary health care may enhance clinical outcome. For example, acupuncture may provide relief from chemotherapy related nausea, chiropractic may confer general pain relief and wellness, and naturopathy may encourage dietary and nutritional support. CAM practitioner respondents in a survey by Barrett et al<sup>28</sup> stressed the importance of patients having diverse options — that expanding choice optimizes health care. According to one respondent, “a system integrating CAM and conventional [care] could better serve patients' varying health care needs over the course of a lifetime.” Such a setting would prioritize prevention and health maintenance. Open, productive communication with the patient builds rapport and fosters confidence and trust.

For physicians, open communication with both their patients and CAM practitioners provides opportunities to obtain a more complete picture of patients' relevant practices, to increase their understanding of the potential benefits of CAM, encourage patients in appropriate CAM use, alert patients and CAM practitioners to possible harm, reduce the potential for malpractice liability, and render the best possible care. For CAM providers, open communication can increase their understanding of the conventional care received by patients, the rationale for this care, how to best maximize benefits and avoid potential adverse events resulting from the combination CAM and conventional care.

Improved communication might also reduce the likelihood of litigation, benefiting physicians and their malpractice insurers and helping to contain medical costs. Patient satisfaction is key. Physicians who listen well, convey an understanding of their patients' needs, respond appropriately<sup>29</sup> and, among other things, encourage patients to talk and to express their opinions about their medical problems and about treatment<sup>30</sup> have been shown to have decreased malpractice risk. Interestingly, physicians often feel deficient in their knowledge about CAM safety and efficacy and an overwhelming majority want more education on CAM modalities.<sup>31</sup> Aware of the widespread use of CAM among their patients, many physicians acknowledge the need for improved CAM communication.<sup>32</sup>

Traditionally, conventional medicine has not widely accepted CAM and CAM practitioners have been left to work in isolation from, and sometimes at cross purposes with, physicians. In a study by Frenkel et al (2007),<sup>33</sup> 74% of CAM practitioners surveyed expressed difficulty in communicating with physicians, primarily due to a fear of rejection and feelings of inferiority. CAM practitioners felt more empowered and confident about interacting with conventional health care practitioners after training in critical thinking skills, patient-centered care, and communication skills relevant to this group. Therefore, to enable future practitioners to more confidently communicate with physicians, CAM educators could be encouraged to provide this type of training.

The present study had some important strengths. First, it represents one of the largest investigations to date of physician disclosure rates among cancer patients using CAM. The sheer number of patients surveyed about CAM use, 2527, enabled a breakdown analysis that still retained statistical power. Second, this investigation used data collected as part of the Women's Healthy Eating and Living (WHEL) Study, a widely known and well-validated study.



The WHEL Study was carefully designed to assess multiple secondary outcomes and questions, including those related to CAM use, and it employed rigorous, carefully designed instrumentation addressing CAM use. The multicenter component of the WHEL Study added to the diversity of its patient population and the generalizability of its findings. WHEL Study participants were well trained (by repeatedly interacting with telephone counselors and dietitians) to be responsive and conscientious about answering questions. This was partly due to inherent participant characteristics such as education and socioeconomic status, but also because WHEL assessors and interviewers used a nonjudgmental behavioral approach geared to ensuring valid, reliable, and unbiased responses. Third, little is known about the characteristics that predispose cancer patients to disclose their use of CAM with their physicians, as only a handful of studies have addressed disclosure. Fewer still are the studies specifically involving breast cancer patients. This study may be the only one that has focused on patients using CAM practitioner-administered modalities. This study analyzed CAM disclosure rates on the basis of these modalities and noted a significant pattern.

However, this study also had some important limitations. First, in spite of the initially large sample size, the power to detect significant associations was greatly reduced once the analysis was confined to much smaller subgroups. Although the number of women completing the CAM questionnaire was quite large and the majority of participants used some form of CAM, most were “self-administered” modalities (e.g., yoga, prayer) whereas only a relatively small percentage of participants (11.9%) reported receiving care from CAM practitioners. Second, while the CAM questionnaire permitted calculation of rates of nondisclosure, it did not investigate the underlying reasons it occurred. Third, this study was limited to CAM use for cancer and/or cancer related side effects. Yet, cancer patients may use CAM for non-cancer related purposes and it would have been more complete to assess these disclosure patterns as well. Finally, our results may not be generalizable to other populations. Because this study involved only breast cancer patients, it did not assess the potentially different disclosure patterns for patients with other forms of cancer or non-cancerous conditions. Similarly, the findings pertain solely to women who consulted with a CAM practitioner in conjunction with using acupuncture, chiropractic, homeopathy and naturopathy. They do not apply to those women who used, for example, homeopathic or naturopathic products without practitioner supervision or to those who used other types of CAM therapies.

In summary, CAM practitioners need to more fully understand the limitations or potential adverse effects of their modalities and how their care needs to be modified during periods of conventional treatment. Physicians need to convey greater respect for patient decision-making, to seek out unbiased information on CAM, and to actively encourage CAM disclosure when communicating with their patients. And additional research is needed to better understand the barriers that prevent open communication among all parties. These steps would go a long way toward optimizing patient well being and building a truly integrative approach to health care.

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**Table 1**  
Physician disclosure rates and timeframe of use for four CAM modalities (n=283) in consultation with a CAM practitioner.

	Number who used this modality in consultation with a practitioner <sup>1</sup> (% of total CAM uses)	Used during cancer treatment <sup>2</sup>	Used after cancer treatment <sup>2</sup>	Were using at time of survey <sup>2</sup>	Disclosed CAM use to physician
Acupuncture	180	74.3%	75.0%	39.5%	71.1%
Chiropractic	55	70.0%	90.7%	65.4%	47.3%
Herbopathy	68	76.9%	70.1%	37.3%	74.2%
Naturopathy	112	69.2%	77.3%	46.4%	84.8%

<sup>1</sup> Because 90 of the 300 respondents used more than one modality, the column total of 415 is greater than the number of respondents.

<sup>2</sup> Percentage of those who used a given modality during this timeframe.

**Table 2**

Physician Disclosure Rates of WHEL Participants (full disclosers and nondisclosers) who consulted with a CAM practitioner (acupuncture, chiropractic, homeopathy, and/or naturopathy) by demographic characteristics

	Physician Disclosure N (%)	P-value
Age (n=283)		p≥0.05
≤40 (n=35)	27 (77.1)	
41–50 (n=120)	82 (68.3)	
51–60 (n=102)	73 (71.6)	
≥60 (n=26)	16 (61.5)	
Ethnicity (n=283)		p>0.05
Asian (n=10)	6 (60.0)	
Black (n=8)	6 (75.0)	
Hispanic (n=9)	7 (77.8)	
White (n=251)	176 (70.1)	
Other (n=5)	3 (60.0)	
Marital Status (n=276) <sup>I</sup>		p>0.05
Married (n=175)	120 (68.6)	
Single (n=46)	37 (80.4)	
Separated/Divorced (n=47)	30 (63.8)	
Widowed (n=8)	6 (75.0)	
Education (n=283)		p=0.047
No college (n=23)	14 (60.9)	
Some college (n=70)	44 (62.9)	
College grad (n=85)	69 (81.2)	
Post grad (n=105)	71 (67.6)	
Insurance (n=278) <sup>I</sup>		p>0.05
HMO (n=166)	120 (72.3)	
PPO (n=73)	49 (67.1)	
Unrestricted (n=14)	10 (71.4)	
Other (n=25)	17 (66.7)	
Area of Residence (n=279) <sup>I</sup>		p>0.05
Western US (n=213)	147 (69.0)	
Southern US (n=17)	13 (76.5)	
Midwestern US (n=21)	18 (85.7)	
Northeastern US (n=21)	12 (57.1)	
Other country (n=7)	4 (57.1)	
Site (n=283)		p=0.039
UCSD (n=65)	45 (69.2)	
Oakland (n=35)	23 (65.7)	
Davis (n=29)	17 (58.6)	
Arizona (n=41)	24 (58.5)	
Stanford (n=65)	47 (72.3)	
MD Anderson (n=6)	4 (66.7)	

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	<b>Physician Disclosure N (%)</b>	<b>P-value</b>
Portland (n=42)	38 (90.5)	

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<sup>1</sup>The total N for this characteristic is less than 283 due to missing data.