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Abstract

This study aims to examine the usage of complementary and alternative medicine (CAM) on a sample of Portuguese women with history of breast cancer. A total of 107 women with history of breast cancer attending Movimento Vencer e Viver Lisboa responded to a questionnaire designed to assess the use of CAM, as well as other variables, such as satisfaction with conventional care, health perception, perceived control over cancer, and health status (body mass index [BMI], smoking and alcohol consumption, hours of sleep, and physical activity). Forty-eight percent of the participants had used some kind of CAM in the past 12 months. The perceived control over cancer was significantly associated with CAM use (odds ratio [OR] = 1.5; 95% confidence interval [CI] = [1.2, 1.9]). CAM use was more prevalent among women aged 30 to 39 years, single, with high education, and a monthly income of 2,500€ to 2,999€. The CAM used most often were natural products, along with psychotherapy, breathing exercises, and meditation. The main reason mentioned for its use was the improved sense of well-being, and it was interesting to note that 60% of the participants who used CAM did not discuss it with their physicians. The findings support previous data that suggest that the participants' perceived control over their cancer is a significant predictor of CAM usage, and more than half of the patients did not discuss CAM usage with their physician. Further studies with larger samples of cancer patients are warranted.

Keywords

complementary and alternative medicine, breast cancer, user profiles, communication, physician–patient

Introduction

The popularity of complementary and alternative medicine (CAM) is growing among the general public, and in many developed countries, its use varies from 70% to 80% (World Health Organization, 2008). The National Center for Complementary and Alternative Medicine (NCCAM, 2011) defines CAM as a group of diverse medical and health systems, products, and practices that are not generally considered part of conventional medicine. Therefore, complementary medicine refers to use of CAM together with conventional medicine, and alternative medicine refers to its use in place of conventional medicine (NCCAM, 2011).

The use of CAM is also growing among cancer patients with an average use of 31.4% ranging from 7% to 64% (Ernst & Cassileth, 1998). A study by Molassiotis et al. (2005) reported that the use of CAM increased by 30% after the cancer diagnosis. The most commonly reported CAM used are natural products, such as herbs, vitamins, and minerals. The use of homeopathy and relaxation techniques is also commonly reported (Molassiotis et al., 2005).

CAM use has been associated to sociodemographic factors because many studies have found that increased CAM use is associated with female gender, higher levels of education, and

good income (Nguyen, Davis, Kaptchuck, & Philips, 2010; Rosenberg et al., 2008). In addition to demographic characteristics, the type of cancer and its stage are two important factors related to the use of CAM, and several studies suggest breast cancer as one of the most associated with this use (Adams, Sibbritt, & Young, 2005; Gansler, Kaw, Cramer, & Smith, 2008; Molassiotis et al., 2005). The main reasons given by breast cancer patients for the use of CAM consist in the desire to improve the immune system, cure cancer (Boon et al., 2000; Shen et al., 2002; Wanchai, Armer, & Stewart, 2010), alleviate symptoms associated with the side effects of conventional treatments (Shen et al., 2002; Wanchai et al.,

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2010), enhance quality of life (Boon et al., 2000), increase the perception of disease control (Wanchai et al., 2010), and prevent relapse (Boon et al., 2000).

In the last decade patients began to have a more proactive role in relation to their health and well-being, and the ability to discuss about treatments, both conventional and alternative, with their health professionals is becoming increasingly more important (Milden & Stokols, 2004). A study of Chang, Brodie, Choong, Sweeney, and Kerin (2011) showed that only 17.2% of the doctors confessed that they were able to encourage their patients to use CAM. Most doctors say that they do not have enough knowledge about the safety and efficacy of these techniques but were interested in learning more about it (Chang et al., 2011; Milden & Stokols, 2004). It's important that physicians are aware of the side effects of CAM, or about the possible interactions between substances to advise the use of CAM when it presents to be beneficial, or warn about the danger of its use when they present risks for the health of the patient. Likewise, patients should be encouraged to share this information with their health care professionals through a conversation that should be performed carefully and should be made to feel that they are taken seriously and are not criticized for using CAM (Werneke et al., 2004). A study conducted on women with breast cancer showed that patients using herbal medicines or other products of oral intake, with exception of homeopathy, communicated to their doctor that they were using those substances, which indicates that they expect that the doctor inform them about the potential risks. However, patients who resorted to quiropraxis, yoga, guided imagery, hypnosis, and acupuncture were least likely to inform their health professionals, perhaps, because they feel that these practices do not present risk to the treatment they are under and also because many doctors do not believe in these modalities (Shen et al., 2002).

To our knowledge, in Portugal no study has explored CAM use among cancer patients. The aim of the present study is to examine CAM usage in a sample of Portuguese women with history of breast cancer, in a comprehensive way by examining its association through access to a general practitioner,¹ perceived satisfaction with conventional care, health perception, suffering from other chronic diseases, and perceived control over breast cancer.

Method

The data were obtained using a questionnaire based on two sections from the International Questionnaire to Measure Use of Complementary and Alternative Medicine (I-CAM-Q; Quandt et al., 2009), which aims to internationally assess the use of CAM. This questionnaire includes a set of questions about visiting health care providers from traditional medicine and alternative and complementary medicine. Participants were asked to indicate the number of times the providers were seen in the past 3 months, the main reason

they last saw each provider and how helpful the visit was. The questionnaire included sociodemographic data (age, marital status, education level, monthly income, and occupation); questions about access to a general practitioner, satisfaction with conventional care, health perception, existence of other chronic disease and perceived control over breast cancer, by using an item from the *Brief Illness Perception Questionnaire* (Broadbent, Petrie, Main, & Weinman, 2006) that aims to access the belief that the patient has about the possibility of their disease to be controlled and cured; and health status (information on body mass index, smoking and alcohol consumption, number of hours of sleep per night, and physical activity practice). The sample was collected in Movimento Vencer e Viver Lisboa (Reach to Recovery) in Lisbon, Portugal. Participation was voluntary and participants did not receive any payment for participating in the inquiry. Questionnaires were anonymous and no personal information was asked for disclosure.

Statistical Analyses

Participants were classified according to the use of CAM in the past 12 months, as “users” (defined as using CAM at least once in the past 12 months) or “nonusers.” The differences between CAM users and nonusers with respect to sociodemographic, clinical, and health characteristics were tested using a Pearson chi-square test or a Wilcoxon–Mann–Whitney test depending on the scale measurement of the variable. The use/nonuse of CAM was modeled using a binary logistic regression as a function of the mentioned variables. The odds ratio (OR) and the correspondent 95% confidence intervals (CI) were determined to measure the effect size for each variable while controlling the effect of the other variables. Results were considered statistically significant at $p < .05$. All data were analyzed using the Statistical Package for Social Sciences, version 19.

Results

A total of 107 individuals participated in this study. Of these, 51 (47.7%) used some type of CAM in the past 12 months. The most frequently used types of CAM were natural products (37.3%), psychotherapy (25.5%), breathing exercises (19.6%), and meditation (15.7%; Table 1). The main reasons mentioned for using CAM were to increase well-being (50%) and to treat a long-term health condition (i.e., one that last more than 1 month) or its symptoms (33%). Sixty-eight percent of the alternative medicines mentioned were considered very useful. Among CAM users, 60% reported that they did not discuss the usage of CAM with their physicians.

The perceived control over the breast cancer disease was found to be a significant ($p = .002$) predictor of CAM use (OR = 1.5; 95% CI = [1.2, 1.9]), where the probability of not using CAM is about one and a half times higher in participants with a greater perceived control over the disease. Also, perceived

Table 1. Prevalence of Use of Complementary and Alternative Medicine in 51 Breast Cancer Patients.

Natural products	37.3%
Psychotherapy	25.5%
Breathing exercises	19.6%
Meditation	15.7%
Homeopathy	13.7%
Energy therapies	13.7%
Massage	13.7%
Relaxation techniques	13.7%
Spiritual guide	11.8%
Movement therapy	9.8%
Phytotherapy	9.8%
Osteopathy	7.8%
Naturopathy	7.8%
Yoga	5.9%
Quiropraxis	3.9%
Aromatherapy	3.9%
Traditional Chinese medicine	3.9%
Ayurvedic medicine	2.0%

control over the breast cancer disease showed significant differences between users and nonusers ($U = 833.5$; $W = 2,009.5$; $p < .001$), with nonusers reporting a higher perceived control over the disease than users. There was no significant difference between users and nonusers with respect to age ($p = .296$), marital status ($p = .626$), education ($p = .236$), income ($p = .251$), occupation ($p = .323$), satisfaction with conventional medicine ($p = .775$), health perception ($p = .704$), having cancer in the past 12 months ($p = .761$), existence of other chronic disease ($p = .65$), body mass index ($p = .082$), smoking ($p = .368$), hours of sleep ($p = .051$), consumption of alcohol ($p = .265$), and physical activity ($p = .166$).

Discussion

The observed rate of CAM usage found in this study (47.7%) is within the range of results reported in previous studies with breast cancer patients, varying from 35.9% (Molassiotis et al., 2005) to 73% (Shen et al., 2002). The second relevant finding is the difference found between users and nonusers on perceived control over breast cancer, which is supported by previous literature (e.g., Henderson & Donatelle, 2003). In this study, despite the fact that no statistically significant differences were found between CAM users and nonusers in any of the sociodemographic variables assessed, we found that in our sample, CAM usage was more frequent among women aged 30 to 39 years, single, with high educational levels and a monthly income ranging 2,500€ to 2,999€, which concurs with the trend consistently reported by a number of previous studies (Chang et al., 2011; Conboy et al., 2005; Rosenberg et al., 2008; Steinsbekk, Adams, Sibbritt, & Johnsen, 2010). Natural products, psychotherapy, breathing exercises, meditation, and homeopathy were among the most commonly used CAM practices. These results are supported

by previous studies with cancer patients in which the most reported CAM were natural products (Boon et al., 2000; Molassiotis et al., 2005; Shen et al., 2002), followed by homeopathy (Molassiotis et al., 2005; Steinsbekk et al., 2010) and relaxation techniques (Molassiotis et al., 2005; Wanchai et al., 2010).

Data also reveal that a high number of patients do not report the use of CAM to their physician, confirming previous studies (Richardson, Sanders, Palmer, Greisinger, & Singletary, 2000). According to Chang et al. (2011), this lack of communication is associated with several factors, namely, being afraid that the physician does not understand or disapproves of the usage, and that physicians tend to not ask the patient about CAM use. In an era where patients attend to have a more proactive role in relation to their health and their well-being, it is important that patients and physicians are able to discuss either conventional or alternative treatments to prevent its misuse, detrimental interactions, and enhancement of personal control over disease.

Our study suggests that use of CAM is popular among breast cancer patients and that some variables may significantly explain the use of CAM. The small size of the collected sample and its nonprobabilistic nature limits this study's inference results; however, this study, with its limited samples found similar results in previous reports on CAM use with larger samples, suggesting that Portuguese breast cancer patients behave in a similar way regarding CAM use, than other international samples studied. Nevertheless further studies in a larger representative Portuguese samples are warranted.

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Declaration of Conflicting Interests

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Note

1. In Portugal, access to a free national health care system is available to all citizens.

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