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Use of complementary and alternative medicine by lymphoma survivors in South Korea

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ABSTRACT

Purpose: We aimed to examine the experience of complementary and alternative medicine (CAM) use and its association with health-related quality of life (HRQOL) in lymphoma survivors in South Korea.

Methods: The participants were 869 lymphoma survivors from three hospitals in South Korea, all diagnosed with lymphoma at least 24 months prior to participation. Self-reported questionnaires were used to assess CAM use. The questionnaire addressed types of CAM used, sources of information about CAM, reason for CAM use, satisfaction with CAM use, discussion of CAM use with doctors, experience of side effects, costs of CAM use, and intentions to continue using CAM. HRQOL was measured with the EORTC QLQ-C30.

Results: Of the 869 participants, 42.2% had experience using CAM, and there were statistically significant differences among CAM users and non-users in terms of sex, religion, and time since diagnosis. A special diet (e.g., ginseng, chitosan, mixed cereals) was the most commonly used type of CAM, and most CAM users (82.1%) were satisfied with their CAM use. Most CAM users (77.5%) did not discuss the use of CAM with their doctors, and only 9.2% reported any side effects from CAM. CAM users showed significantly lower HRQOL scores than did non-users.

Conclusion: A significant number of lymphoma survivors in Korea have used CAM, and most CAM users are satisfied with their CAM use. Oncology nurses should be aware of the range of CAM use among patients and reflect their responses in their treatment and/or follow-up care.

1. Introduction

Complementary and alternative medicine (CAM) is defined by the National Center for Complementary and Integrative Health (NCCIH) as non-mainstream health approaches along with or in place of conventional Western medicine (NCCIH, 2017). CAM is common among cancer populations, and its use is steadily increasing worldwide (Molassiotis et al., 2005; D'Arena et al., 2014). The prevalence of CAM use in patients with cancer varied from approximately 30%–90% across the studied countries (Molassiotis et al., 2005; Habermann et al., 2009; Yates et al., 2005). In South Korea, the prevalence was also high with a range of 57.4%–74.8% in cancer populations (Kang et al., 2012; Ock

et al., 2009). Korea has its own traditional medicine, like China and Japan. Korean traditional medicine has been an integral part of health care, primarily composed of acupuncture, moxibustion, and herbal medicine (Chang et al., 2011). Though Western medicine rapidly supplanted traditional medicine in the health care system since the nineteenth century, Korean traditional medicine remains popular in patients with musculoskeletal and nervous system diseases such as arthrosis (Oh et al., 2015). These cultural characteristics can influence the relatively high rate of CAM use in South Korea.

The main reasons for use of CAM were reported as belief that CAM relieves symptoms, gives a feeling of control, aids in cancer treatment, or boosts immunity (Bishop et al., 2011; Gan et al., 2015; Kang et al.,

2012; Rausch Osian et al., 2015). According to recent systematic reviews among cancer populations (Leggett et al., 2015; Shneerson et al., 2013), CAM has been found to have some positive effects on symptom relief (e.g., pain, nausea), but evidence for other outcomes such as immunity, physical function, and health-related quality of life (HRQOL) is either not examined or inconclusive. This could cause difficulty in making a definitive recommendation regarding the use of CAM. Moreover, safety issues of several modalities of CAM are not well understood (Rausch Osian et al., 2015).

Lymphoma is the most common hematologic cancer in South Korea, and the five-year survival rate increased from 47.6% in 1993–1995 to 69.1% in 2010–2014 (Jung et al., 2017). As the number of lymphoma survivors grows, interest in supportive care after treatment and HRQOL among this population is increasing. The prevalence of CAM use in lymphoma survivors was reported to be 61%–89%, and the most commonly used modalities were vitamin supplement, chiropractic, and massage (Habermann et al., 2009; Hamilton et al., 2013; Rausch Osian et al., 2015). These previous studies identified factors associated with CAM use in lymphoma survivors; female survivors, older survivors (Rausch Osian et al., 2015), and survivors with higher education levels (Hamilton et al., 2013) are more likely to use CAM. However, Hamilton et al. (2013) found no significant relationships between sex and CAM use, and they found younger age to be significantly associated with greater use of CAM. Currently, inconsistent findings exist regarding factors associated with CAM use in lymphoma survivors.

Although it is not evidence from the lymphoma population, regarding results of discussion with doctors about CAM, quite different findings were observed between Asian and Western countries. In studies from Western countries, approximately 60–70% of cancer patients discussed CAM with their doctors (Ashikaga et al., 2002; Huebner et al., 2014; Saxe et al., 2008). In Asian studies, in contrast, only 30–40% of patients discussed the use of CAM with their doctors (Gan et al., 2015; Kang et al., 2012). Disclosure of CAM use may be an important issue because it facilitates avoidance of harmful interactions with conventional cancer treatments (Davis et al., 2012). Despite this importance, disclosure of CAM use or experience of side effects by lymphoma survivors is not known.

Knowledge of cultural diversity can be important when evaluating CAM use; however, most knowledge of CAM in lymphoma survivors has arisen from Western countries (Habermann et al., 2009; Hamilton et al., 2013; Rausch Osian et al., 2015). In addition, there is limited evidence regarding the relationship between CAM use and HRQOL in lymphoma survivors. This study aimed to examine the experience of CAM use and its associations with HRQOL among lymphoma survivors in South Korea.

2. Methods

2.1. Participants and procedures

This study was part of a patient-reported outcomes study for lymphoma survivors in South Korea. Detailed recruitment information has been described elsewhere (Kim et al., 2014). Using the institutional registry, we identified 8065 participants who had been treated for lymphoma in the three university hospitals in South Korea. Participants were eligible if they were ≥18 years old at the time of diagnosis, had been diagnosed more than 24 months prior to participation, and had no other cancer.

We screened 1692 potentially eligible participants through review of electronic medical records. We contacted the participants by telephone from January to October of 2012 and sent a questionnaire and informed consent form to those who agreed to participate. Participants returned these forms to the research team using a postage-paid return envelope. Some participants who were scheduled to visit the hospital completed the questionnaire during their visit. Of the 1153 survivors who agreed to participate, 889 completed the questionnaire. Twenty

who did not respond to the CAM survey were excluded, leaving 869 participants. The three Institutional Research and Ethics Committees reviewed and approved the study protocol.

2.2. Measures

2.2.1. CAM use

Types of CAM suggested by the NCCIH were categorized into five groups (i.e., whole medical systems, mind–body therapies, biologically based therapies, manipulative and body-based therapies, and energy healing therapies). We followed these definitions and categorization (Table 2); however, some modifications were made to diet-based therapies considering cultural issues. We finalized the items describing types of CAM (Table 2) based on previous Korean studies (Kang et al., 2012; Ock et al., 2009). The items describing CAM use were derived from two previous studies (Kang et al., 2012; Molassiotis et al., 2005). When we administered a questionnaire, we provided a definition of CAM (i.e., "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional Western medicine") to obtain clearer participant responses. The questionnaire concerning CAM use addressed history of CAM use, types of CAM used, sources of information about CAM, reasons for CAM use, discussion of CAM use with doctors, reasons for not discussing CAM use with physicians, satisfaction with CAM use, side effects of CAM use, costs of CAM use, and intentions to continue CAM use.

2.2.2. HRQOL

HRQOL was measured using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORTC QLQ-C30) (Aaronson et al., 1993). This instrument consists of five functional subscales, a global QOL subscale, and symptom subscales. We used only the five functional subscales (physical, role, emotional, cognitive, and social function) and a global QOL subscale in this study. Each subscale score is calculated by the EORTC scoring manual and ranges from 0 to 100. A higher score represents a higher level of function and global QOL. The Korean version of the EORTC QLQ-C30 was validated (Yun et al., 2004).

2.2.3. Sociodemographic and clinical characteristics

Sociodemographic variables were obtained by a self-reported questionnaire. Clinical information included type of lymphoma, its site, stage at diagnosis, time since diagnosis, types of treatment, recurrence, and so on. This information was collected by the authors from electronic medical records (Table 1).

2.3. Statistical analysis

We performed descriptive analyses to report the frequency and percentage of the study variables. Comparison of sociodemographic and clinical characteristics between CAM users and non-users was analyzed with independent t-test and chi-square test. To examine the difference in HRQOL between CAM users and non-users, an independent t-test was conducted. We used SPSS Statistics (SPSS, Inc., Chicago, IL) for the analysis and conducted two-sided tests, considering $p < 0.05$ to indicate statistical significance.

3. Results

3.1. Characteristics of study participants

The mean age of the study participants was 54.8 years (SD = 12.5), and the mean time since diagnosis was 6.4 years (SD = 3.7). More male survivors (58.0%) were recruited than female survivors, and most (78%) were married. Most survivors (95%) had finished their treatment, but 48 were still undergoing treatment. Of the 869 participants,