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Association between use of self-prescribed complementary and alternative medicine and menopause-related symptoms: A cross-sectional study

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ABSTRACT

Objectives: To examine the association between self-prescribed complementary and alternative medicine use and menopause-related symptoms, stratified by menopausal status.
Methods: Data were obtained from a cross-sectional survey of a nationally representative sample of 10,011 menopausal women from the Australian Longitudinal Study on Women's Health, conducted in 2010. Multivariable logistic regression models were applied to identify if the use of selected self-prescribed complementary and alternative medicine was significantly associated with a range of menopause-related symptoms.
Results: Vitamins/minerals were more likely to be used by natural menopausal women experiencing anxiety (adjusted OR = 1.20) and/or stiff/painful joints (adjusted OR = 1.16). Yoga/meditation was more likely to be used by women with hysterectomy (adjusted OR = 1.76) or natural menopausal women (adjusted OR = 1.38) experiencing anxiety. Herbal medicines were more likely to be used by natural menopausal women experiencing anxiety (adjusted OR = 1.22), tiredness (adjusted OR = 1.20), and/or stiff/painful joints (adjusted OR = 1.17), and by women with oophorectomy experiencing tiredness (adjusted OR = 1.45). Aromatherapy oils were more likely to be used by natural menopausal women experiencing night sweats (adjusted OR = 1.25) and by women with hysterectomy experiencing anxiety (adjusted OR = 2.02). Chinese medicines were more likely to be used by women with oophorectomy experiencing stiff/painful joints (adjusted OR = 4.06) and/or palpitations (adjusted OR = 3.06).
Conclusions: Our study will help improve the patient-provider communication regarding complementary and alternative medicine use for menopause, and we conclude that menopausal status should be taken into account by providers for menopause care. The women's experience and motivations of such use warrant further research.

1. Introduction

An estimated 1.2 billion women will be menopausal or postmenopausal, either naturally or surgically, by the year of 2030.[1] Menopause-related symptoms, such as hot flushes and night sweats, remain highly prevalent even 10 or more years after the commencement of menopause.[2] Women with natural menopause, hysterectomy, or oophorectomy appear to be associated with increased prevalence of different menopause-related symptoms.[3–5] Hormone replacement therapy (HRT), the mainstream treatment for menopause-related symptoms, is not suitable for women after the age of 60 years and is not recommended for long-term use.[6] Consequently, complementary and alternative medicine (CAM) has become a frequent treatment amongst menopausal women for the relief of menopause-related symptoms.[7]

CAM refers to a broad group of healthcare systems, consultations, therapies, and products not traditionally related to conventional medical professions.[8] Most CAM use is self-prescribed by consumers rather than prescribed by CAM practitioners.[9,10] Consumers can easily purchase vitamins/minerals, herbal medicines, aromatherapy oils, or Chinese medicines from a supermarket, chemist or health food store.[11] The average total cost of self-

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prescribed CAM in middle-aged Australian women per user was recently estimated to be $349 per annum.[12] Specifically regarding women with menopausal symptoms, research from Australia showed that the prevalence of self-prescribed CAM use (34%) was higher than the prevalence of CAM practitioner consultations (5%) and the use of prescription medication (26%).[10] A study conducted in US indicated the significant positive associations between use of vitamins/supplements and vasomotor symptoms; between use of vitamins/supplements and somatic symptoms; and between use of herbal medicines and psychological symptoms amongst menopausal women younger than 50 years.[13] Despite the popularity of self-prescribed CAM use by women with menopausal symptoms, a majority of them do experience difficulty in their decision-making around choosing specific forms of self-prescribed CAM for frequently reported menopause-related symptoms[14] and do not inform the healthcare providers about their CAM use.[7]

Previous studies on menopausal women's use of self-prescribed CAM have focused only on: prevalence rates of self-prescribed CAMs amongst menopausal women[9,10]; women at the duration of highest rates of menopause-related symptoms[13,15]; treatment of only one specific symptom at different menopausal status[4]; menopausal status excluding hysterectomy[13]; and data analysis ignoring the confounder 'HRT'.[5] No study to date has provided detailed information on the choice of frequently-used self-prescribed CAM for each symptom among menopausal women, nor focused upon self-prescribed CAM use by women with different types of menopause, including natural menopause, hysterectomy and oophorectomy. In response to these significant research gaps, we examined the associations between frequently reported symptoms across different menopause status and a range of self-prescribed CAMs amongst a nationally-representative sample of menopausal Australian women.

2. Methods

2.1. Study population

The Australian Longitudinal Study on Women's Health (ALSWH) (www.alswh.org.au) employed postal surveys to collect self-report data on factors affecting health and well-being from three cohorts of Australian women since 1996 ('young' 18–23 years, 'mid-age' 45–50 years, and 'older' 70–75 years). These women were randomly selected from the national medicare database, which covered the information on name and address of all Australian citizens and permanent residents, and were sent an invitation asking for informed written consent to participate in this research project. The study reported here focused on women from the mid-age cohort ($n = 13715$ at baseline) who had been surveyed six times. Data for this study were confined to 10,011 menopausal women aged 59–64 years participating in the latest survey of mid-age cohort conducted in 2010 (12,064 women were eligible). Ethical approval for the study protocol was gained from the Human Ethics Committees at the University of Queensland, University of Newcastle Australia and University of Technology Sydney.

2.2. Self-prescribed CAM use

Women were asked about their use of five types of CAM which are commonly self-prescribed, including vitamins/minerals, yoga/meditation, herbal medicines, aromatherapy oils and Chinese medicines. Response options were 'never', 'rarely', 'sometimes' and 'often'. Women who answered 'sometimes' or 'often' were defined as using the self-prescribed CAM.

2.3. Menopausal women

Menopausal status was defined on the basis of menstrual pattern and gynecological surgery provided by the women in response to survey questions: natural menopause — women who reported amenorrhea for 12 consecutive months or more; hysterectomy — women whose periods stopped because of surgical removal of uterus; oophorectomy — women with a history of surgical removal of both ovaries with or without removal of uterus.

An item included in the survey questionnaire asked women about their experience of some menopause-related symptoms in the last 12 months, including hot flushes, night sweats, depression, anxiety, tiredness, stiff or painful joints, back pain, vaginal discharge, leaking urine, headaches, and palpitations. Response options were 'never', 'rarely', 'sometimes' and 'often'. Answers of 'sometimes' or 'often' were used to indicate the presence of the symptom for the present analyses.

2.4. Covariates

Women were asked about their marital status, highest educational qualification, areas of residence, ability to manage available income, private health insurance, smoking status and level of alcohol consumption. Information on the frequency of visit to a general practitioner (GP) and a specialist doctor in the previous 12 months, as well as the use of HRT via a question that asked whether the woman was currently taking HRT, was also collated. The women were asked whether they had been diagnosed with or treated for a range of chronic conditions in the past three years including diabetes, impaired glucose tolerance, arthritis, heart disease, hypertension, low iron level, asthma, bronchitis, cancer, and osteoporosis.

2.5. Statistical analysis

The percentages of women reporting use of each self-prescribed CAM for menopause-related symptoms, stratified by menopausal status, were examined and associations were assessed using chi-square tests. To correct for multiple comparisons, a Bonferroni adjustment was used. Multiple logistic regression models were used to identify the statistically significant menopause-related symptoms associated with women's likelihood of self-prescribed CAM use, after adjusting for potential confounders, in three menopausal status categories separately. We identified the potential confounders based on previously research that documented predictors of CAM use in menopause, as well as clinical knowledge of CAM use, including the demographic characteristics, health status, health service utilisation, HRT use, and comorbidities described above.[13,16] All confounding variables were included in each individual regression model, and only main effects in the models were considered. The fit of the models were assessed using the Hosmer–Lemeshow goodness-of-fit test. Statistical significance was set at $p < 0.05$. All analyses were conducted using the statistical software STATA 11.2.

3. Results

A total of 2260 women with hysterectomy, 1141 women with oophorectomy, and 6610 natural menopausal women were included in the study with the response rate of 83%. The prevalence rates of using self-prescribed vitamins/minerals in the previous 12 months were 69% in women with hysterectomy, 67% in women with oophorectomy, and 69% in natural menopausal women. The prevalence rates of using self-prescribed yoga/meditation were 15%, 15% and 19%, for women with hysterectomy, oophorectomy, and natural menopause, respectively; the prevalence rates