Association between consultations with complementary/alternative medicine practitioners and menopause-related symptoms: a cross-sectional study

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ABSTRACT

Objectives To examine the associations between consultations with complementary and alternative medicine (CAM) practitioners and menopause-related symptoms.

Methods A cross-sectional survey of a nationally representative sample of 10 011 women aged 59–64 years from the Australian Longitudinal Study on Women's Health, conducted in 2010. Women, including those with hysterectomy, oophorectomy and natural menopause, were asked about their consultations with a range of CAM practitioners and menopause-related symptoms experienced.

Results Acupuncturists were more likely to be consulted by women with hysterectomy experiencing night sweats (odds ratio, OR = 2.21), but were less likely to be consulted by those experiencing hot flushes (OR = 0.53). Acupuncturists were also more likely to be consulted by women with oophorectomy (OR = 3.11) and natural menopausal women (OR = 1.57) experiencing back pain. Massage therapists were more likely to be consulted by women with oophorectomy experiencing back pain (OR = 1.98), women with hysterectomy experiencing anxiety (OR = 1.52), and natural menopausal women experiencing back pain (OR = 1.54) and/or anxiety (OR = 1.29). Naturopaths/herbalists were more likely to be consulted by women with oophorectomy experiencing leaking urine (OR = 2.08). Chiropractors/osteopaths were more likely to be consulted by women across all menopausal status experiencing back pain (OR = 2.52, 2.31 and 2.25 for women with oophorectomy, hysterectomy and natural menopause, respectively).

Conclusions There are substantial levels of CAM practitioners' consultations amongst menopausal women, with a range of menopause-related symptoms associated with the use of specific CAM practitioner modalities. It is important that health-care providers are mindful of CAM practitioner use in order to ensure safe, effective and coordinated treatment and support for menopausal women in their care.

INTRODUCTION

Menopause is a normal event for every woman caused by the natural or surgical cessation of ovarian estrogen and progesterone[1]. Hysterectomy is the major surgery performed on menopausal women in Western countries, and one-third of women who underwent hysterectomy had a unilateral or bilateral oophorectomy[2]. The majority of middle-age women in natural or surgical menopause need to seek medical advice for the relief of a variety of symptoms, especially hot flushes and night sweats[3]. Complementary and alternative medicine (CAM) is being increasingly used by women for the treatment of menopause-related symptoms[4].

CAM refers to a group of diverse medical practices not associated with the conventional medical profession or curriculum[5]. More than one-third of women consult a

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CAM practitioner annually during menopausal transition in Australia[6,7]. Additionally, more than half of general practitioners refer patients to CAM practitioners at least a few times per year, including women with menopausal symptoms[8,9]. The average total cost of consultations with CAM practitioners by mid-age Australian women is estimated at $416 per annum per woman in 2009[10]. A study in Australia reported naturopaths and acupuncturists were the most commonly visited CAM practitioners for women with menopausal symptoms, with 8% of these women having consulted two or more CAM practitioners[7]. In a US study, menopausal women were identified as more likely to visit a chiropractor or massage therapist regardless of ethnic group[11].

Women have the option of CAM use to manage menopausal symptoms and have expressed a demand for evidence-based information with regard to the choice of appropriate CAM practitioner[4,12]. The few studies that have examined use of CAM practitioners amongst menopausal women have generally focused on prevalence of use of CAM and CAM workforce issues[6,7,13]. No research to date has provided detailed information on consultations with practitioners from the main CAM modalities (including massage therapists, naturopaths/herbalists, chiropractors/osteopaths and acupuncturists) by type of menopause as well as information on the menopause-related symptoms of these CAM users[14]. In response, the analyses presented in this paper provide the first step in addressing this gap in knowledge, drawing upon data from a nationally representative sample of Australian women.

METHODS

Sample

Details of the Australian Longitudinal Study on Women's Health (ALSWH) have been presented elsewhere[15], but, briefly, the ALSWH consists of three cohorts of women ('young', 18–23; 'mid-age', 45–50; and 'older', 70–75 years) who were randomly selected from the National Health Insurance Commission database in 1996. A paper-based questionnaire was sent to these women by mail. The focus of this study is the women from the mid-age cohort. These women have been surveyed six times to date (in 1996, 2000, 2003, 2006, 2009, and 2010), and analysis for the present study is confined to the sixth survey carried out in 2010 when the participants were 59–64 years. The survey was sent to 12 064 women, and a total of 10 011 women responded to this survey, which represents a response rate of 83.0%. Ethical approval was gained from the Human Ethics Committees at the University of Queensland, University of Newcastle Australia and the University of Technology Sydney.

Menopausal status

Menopausal women were categorized into three groups for analyses in this study based on the responses to survey questions about menstrual pattern and history of gynecological surgery: women with a history of hysterectomy only as having 'hysterectomy'; women whose periods stopped because of surgical removal of ovaries with or without hysterectomy as being 'oophorectomy'; and women who reported amenorrhea for 12 consecutive months or more and did not stop because of surgery were classified as 'natural menopause'[16].

Consultation with a CAM practitioner

Women were asked about their consultations with CAM practitioners including acupuncturists, massage therapists, naturopaths/herbalists, and chiropractors/osteopaths. Women were defined as having consulted these CAM practitioners if they answered 'yes' to the following question (separate question for each CAM modality): 'Have you consulted a [CAM practitioner] in the last 12 months, for your own health?'.

Menopause-related symptoms

Women were asked about their experience of a number of menopause-related symptoms in the past 12 months including hot flushes, night sweats, headaches, tiredness, stiff or painful joints, back pain, vaginal discharge, leaking urine, depression, anxiety, and palpitations. Response categories for each of these symptoms were: never, rarely, sometimes or often. Participants whose response was 'never' or 'rarely' were classified as women not experiencing the symptom, whilst those whose response was 'sometimes' or 'often' were classified as women experiencing the symptom.

Confounders

All confounders were identified based on previously documented predictors of CAM consultations, including demographic characteristics, health status, use of hormone replacement therapy (HRT), health service utilization, and co-morbidities. To be specific, postcode of residence is used to classify area of residence as urban, rural and remote. Women were asked about their marital status, private health insurance, management on available income, the highest educational qualification, current smoking status, and level of alcohol consumption. Women were asked about the frequency of visits to a general practitioner or a specialist doctor in the past 12 months. Women were also asked whether they were taking HRT currently. In addition, the women were asked to indicate any chronic health condition with which they had been diagnosed or for which they had been treated during the past 3 years, including diabetes, impaired glucose tolerance, arthritis, heart disease, hypertension, low iron level, asthma, bronchitis, cancer, and osteoporosis.

Statistical analysis

Bivariate associations between consultations with each CAM practitioner group against menopause-related symptoms, stratified on the three types of menopause, were assessed using a χ^2 test. Multiple logistic regression models were developed to determine the adjusted odds ratios (ORs) of menopause-related symptoms in relation to consultation with each CAM practitioner group separately for the three menopause types. Note that the confounder variables of demographic characteristics, health status, health service utilization, and co-morbidities listed above were all entered into the models. Statistical significance was set at the 0.05 level. All analyses were conducted using statistical software package STATA 11.2.

RESULTS

The menopausal status of the women was as follows: 11% (1141) of women had an oophorectomy; 23% (2260) of women had a hysterectomy; and 66% (6610) had a natural menopause. The most common CAM practitioners consulted were massage therapists (26% of both women with oophorectomy and women with hysterectomy, and 25% of natural menopausal women) and chiropractors/osteopaths (19% of both women with oophorectomy and women with hysterectomy, and 18% of natural menopausal women) amongst women of all three types of menopause.

Table 1 shows the consultations of CAM practitioner groups for menopause-related symptoms amongst women with oophorectomy. There were positive, statistically significant associations between: back pain and the consultations with an acupuncturist, a massage therapist, and/or a chiropractor/osteopath; depression and the consultation with a naturopath/herbalist; anxiety and the consultation with a naturopath/herbalist; stiff or painful joints and the consultations with an acupuncturist and/or a chiropractor/osteopath; and leaking urine and the consultations with a naturopath/herbalist and/or a chiropractor/osteopath (all $p < 0.05$). Note that there were no statistically significant associations identified between hot flushes/night sweats and any of the CAM practitioner groups.

Table 2 presents the consultations of CAM practitioner groups for menopause-related symptoms amongst women with hysterectomy. Our analysis showed statistically significant associations between: hot flushes and the consultations with a chiropractor/osteopath; night sweats and the consultations with a chiropractor/osteopath; tiredness and the consultations with an acupuncturist, a naturopath/herbalist, and/or a massage therapist; stiff or painful joints and the consultations with a chiropractor/osteopath and/or a massage therapist; back pain and the consultations with a chiropractor/osteopath and/or a massage therapist; vaginal discharge and the consultations with a chiropractor/osteopath; and headaches and the consultations with an acupuncturist, a chiropractor/osteopath, and/or a massage therapist (all $p < 0.05$).

Consultations of CAM practitioner groups for menopause-related symptoms amongst natural menopausal women are shown in Table 3. Night sweats were associated with consultation with a chiropractor/osteopath; anxiety and tiredness were associated with all of the CAM practitioner groups; stiff or painful joints and back pain were associated with consultations with an acupuncturist, a chiropractor/osteopath, and/or a massage therapist; and headaches were associated with consultations with a chiropractor/osteopath and/or a massage therapist (all $p < 0.05$).

Table 1 The associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for women with oophorectomy. Data are given as %

		Acupuncturist		*Naturopath/herbalist*		*Chiropractor/ osteopath*		*Massage therapist*	
Symptoms		*No* ($n = 1071$)	*Yes* ($n = 61$)	*No* ($n = 1048$)	*Yes* ($n = 86$)	*No* ($n = 918$)	*Yes* ($n = 217$)	*No* ($n = 846$)	*Yes* ($n = 291$)
Hot flushes	% yes	40	35	39	43	39	41	40	39
Night sweats	% yes	31	36	31	39	31	33	31	32
Depression†	% yes	26	34	26	41	27	27	26	28
Anxiety†	% yes	29	32	28	41	29	28	28	32
Tiredness	% yes	50	62	50	60	51	50	51	50
Stiff or painful joints*,‡	% yes	70	90	71	74	70	79	71	74
Back pain*,‡,**	% yes	62	82	63	71	60	77	61	71
Vaginal discharge	% yes	9	15	9	13	9	10	9	9
Leaking urine†,‡	% yes	33	44	32	49	32	41	33	36
Headaches	% yes	44	48	44	50	43	49	45	42
Palpitations	% yes	25	28	25	31	25	25	24	28

*, Statistically significant association with massage therapist ($p < 0.05$); †, statistically significant association with naturopath/herbalist ($p < 0.05$); ‡, statistically significant association with chiropractor/osteopath ($p < 0.05$); **, statistically significant association with acupuncturist ($p < 0.05$)

Table 2 The associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for women with hysterectomy. Data are given as %

		Acupuncturist		*Naturopath/herbalist*		*Chiropractor/osteopath*		*Massage therapist*	
Symptoms		*No* ($n = 2135$)	*Yes* ($n = 112$)	*No* ($n = 2061$)	*Yes* ($n = 183$)	*No* ($n = 1834$)	*Yes* ($n = 419$)	*No* ($n = 1673$)	*Yes* ($n = 574$)
Hot flushes‡	% yes	40	40	40	39	39	47	40	41
Night sweats‡	% yes	31	39	31	30	30	38	31	31
Depression	% yes	23	27	24	24	24	21	24	23
Anxiety	% yes	27	32	26	33	27	27	26	30
Tiredness*,†,**	% yes	47	57	46	58	46	51	45	53
Stiff or painful joints‡,**	% yes	69	77	69	72	68	75	67	75
Back pain‡,**	% yes	60	67	60	64	57	76	58	67
Vaginal discharge‡	% yes	7	9	7	9	7	10	7	8
Leaking urine	% yes	32	38	33	33	32	36	32	34
Headaches*,‡,**	% yes	43	59	43	49	42	50	42	49
Palpitations	% yes	22	25	21	25	21	23	22	22

*, Statistically significant association with massage therapist ($p < 0.05$); †, statistically significant association with naturopath/herbalist ($p < 0.05$);‡, statistically significant association with chiropractor/osteopath ($p < 0.05$); **, statistically significant association with acupuncturist ($p < 0.05$)

Multiple logistic regression models were used to identify the statistically significant menopause-related symptoms associated with visits to CAM practitioners after adjusting for potential confounders. As seen in Table 4, women with oophorectomy were more likely to consult an acupuncturist if they suffered from back pain (OR = 3.11; 95% confidence interval (CI) 1.23–7.88; $p = 0.017$) compared to those who did not suffer from back pain. Women with oophorectomy were more likely to consult a massage therapist if they suffered from back pain (OR = 1.98; 95% CI 1.36–2.89; $p < 0.001$) compared to those who did not suffer from back pain. Women with oophorectomy were more likely to consult a naturopath/herbalist if they suffered from leaking urine (OR = 2.08; 95% CI 1.20–3.59; $p = 0.009$) compared to those who did not suffer from leaking urine. Women with oophorectomy were more likely to consult a chiropractor/osteopath if they suffered from back pain (OR = 2.52; 95% CI 1.62–3.93; $p < 0.001$) and/or leaking urine (OR = 1.49; 95% CI 1.02–2.17; $p = 0.038$) compared to those who did not suffer from back pain and/or leaking urine, respectively.

Table 3 The associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for natural menopausal women. Data are given as %

		Acupuncturist		*Naturopath/herbalist*		*Chiropractor/ osteopath*		*Massage therapist*	
Symptoms		*No* ($n = 6177$)	*Yes* ($n = 392$)	*No* ($n = 5950$)	*Yes* ($n = 609$)	*No* ($n = 5373$)	*Yes* ($n = 1204$)	*No* ($n = 4927$)	*Yes* ($n = 1652$)
Hot flushes	% yes	31	32	31	32	31	33	31	33
Night sweats‡	% yes	24	24	24	26	23	26	24	25
Depression	% yes	18	22	18	20	18	20	18	20
Anxiety*,†,‡,**	% yes	23	30	23	28	23	26	23	27
Tiredness*,†,‡,**	% yes	38	43	38	44	38	42	38	41
Stiff or painful joints*,‡,**	% yes	61	68	62	61	61	67	60	67
Back pain*,‡,**	% yes	51	64	52	55	49	67	49	61
Vaginal discharge	% yes	6	6	6	6	6	7	6	7
Leaking urine	% yes	24	26	24	23	24	24	24	24
Headaches‡,**	% yes	34	37	34	32	34	37	34	36
Palpitations	% yes	16	17	16	16	16	18	16	16

*, Statistically significant association with massage therapist ($p < 0.05$); †, statistically significant association with naturopath/herbalist ($p < 0.05$); ‡, statistically significant association with chiropractor/osteopath ($p < 0.05$); **, statistically significant association with acupuncturist ($p < 0.05$)

Table 4 The adjusted odds ratios obtained from logistic regression models showing the magnitude of associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for women with oophorectomy. Model is adjusted for all confounding variables, including education, marital status, area, income, private health insurance, smoking, alcohol, general practitioners, specialists, HRT use status, diabetes, impaired glucose tolerance, arthritis, heart disease, hypertension, low iron level, asthma, bronchitis, cancer, and osteoporosis

	Acupuncturist		*Naturopath/herbalist*		*Chiropractor/osteopath*		*Massage therapist*	
Symptoms	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*
Hot flushes	0.52 (0.23–1.19)	0.123	0.74 (0.38–1.45)	0.377	0.98 (0.63–1.54)	0.937	0.81 (0.54–1.23)	0.319
Night sweats	1.63 (0.71–3.75)	0.247	1.73 (0.87–3.47)	0.121	0.90 (0.56–1.44)	0.655	1.20 (0.78–1.85)	0.414
Depression	1.12 (0.43–2.89)	0.816	1.30 (0.62–2.72)	0.482	1.13 (0.66–1.93)	0.649	1.03 (0.64–1.65)	0.919
Anxiety	0.68 (0.27–1.73)	0.418	1.17 (0.58–2.40)	0.660	0.69 (0.41–1.17)	0.168	0.99 (0.63–1.57)	0.980
Tiredness	1.00 (0.49–2.02)	0.995	1.12 (0.61–2.05)	0.714	0.83 (0.56–1.23)	0.345	1.00 (0.70–1.43)	1.000
Stiff or painful joints	2.32 (0.73–7.35)	0.151	0.64 (0.32–1.27)	0.201	1.00 (0.62–1.64)	0.986	0.77 (0.51–1.18)	0.233
Back pain	3.11 (1.23–7.88)	0.017	1.63 (0.86–3.10)	0.135	2.52 (1.62, 3.93)	<0.001	1.98 (1.36–2.89)	<0.001
Vaginal discharge	1.37 (0.55–3.42)	0.499	1.22 (0.54–2.73)	0.634	0.88 (0.48–1.60)	0.679	0.92 (0.53–1.60)	0.768
Leaking urine	0.98 (0.50–1.91)	0.942	2.08 (1.20–3.59)	0.009	1.49 (1.02–2.17)	0.038	1.14 (0.80–1.61)	0.473
Headaches	0.86 (0.45–1.64)	0.653	0.89 (0.52–1.53)	0.673	1.32 (0.92–1.89)	0.131	0.74 (0.53–1.03)	0.075
Palpitations	1.06 (0.51–2.22)	0.869	0.76 (0.41–1.41)	0.384	1.02 (0.67–1.55)	0.931	1.36 (0.94–1.98)	0.105

OR, odds ratio; 95% CI, confidence interval

Table 5 shows that women with hysterectomy were more likely to consult an acupuncturist when experiencing night sweats (OR = 2.21; 95% CI 1.18–4.14; $p = 0.014$) and/or experiencing headaches (OR = 1.74; 95% CI 1.10–2.75; $p = 0.018$), whereas these women were less likely to consult an acupuncturist when experiencing hot flushes (OR = 0.53; 95% CI 0.28–0.98; $p = 0.043$). Women with hysterectomy were more likely to consult a massage therapist if they experienced anxiety (OR = 1.52; 95% CI 1.13–2.06; $p = 0.006$), but were less likely to consult a massage therapist if they experienced depression (OR = 0.72; 95% CI 0.53–1.00; $p = 0.048$). Women with hysterectomy were more likely to consult a chiropractor/osteopath if they experienced back pain (OR = 2.31; 95% CI 1.71–3.12; $p < 0.001$). None of the menopause-related symptoms were significantly associated with the use of naturopaths/herbalists amongst women with hysterectomy.

As seen in Table 6, the odds of consulting an acupuncturist were 1.42 (95% CI 1.04–1.94; $p = 0.026$) and 1.57 (95% CI 1.20–2.05; $p = 0.001$) times higher for natural menopausal women reporting anxiety and back pain, respectively. The odds of consulting a massage therapist was 1.29 times greater for natural menopausal women experiencing anxiety (95% CI

Table 5 The adjusted odds ratios obtained from logistic regression models showing the magnitude of associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for women with hysterectomy. Model is adjusted for all confounding variables, including education, marital status, area, income, private health insurance, smoking, alcohol, general practitioners, specialists, HRT use status, diabetes, impaired glucose tolerance, arthritis, heart disease, hypertension, low iron level, asthma, bronchitis, cancer, and osteoporosis

	Acupuncturist		*Naturopath/herbalist*		*Chiropractor/osteopath*		*Massage therapist*	
Symptoms	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*
Hot flushes	0.53 (0.28–0.98)	0.043	0.94 (0.58–1.51)	0.790	1.13 (0.81–1.59)	0.468	1.01 (0.75–1.37)	0.925
Night sweats	2.21 (1.18–4.14)	0.014	0.91 (0.55–1.52)	0.721	1.29 (0.91–1.83)	0.155	0.94 (0.69–1.29)	0.711
Depression	0.81 (0.44–1.47)	0.484	0.72 (0.44–1.19)	0.205	0.76 (0.52–1.09)	0.136	0.72 (0.53–1.00)	0.048
Anxiety	1.15 (0.65–2.04)	0.627	1.55 (0.97–2.47)	0.064	1.08 (0.76–1.53)	0.661	1.52 (1.13–2.06)	0.006
Tiredness	1.16 (0.70–1.91)	0.560	1.48 (1.00–2.21)	0.052	0.83 (0.63–1.11)	0.205	1.21 (0.94–1.55)	0.136
Stiff or painful joints	1.09 (0.60–1.97)	0.786	0.99 (0.63–1.56)	0.969	0.96 (0.70–1.32)	0.800	1.14 (0.86–1.52)	0.368
Back pain	0.89 (0.54–1.48)	0.659	1.04 (0.69–1.56)	0.859	2.31 (1.71–3.12)	<0.001	1.26 (0.98–1.63)	0.075
Vaginal discharge	1.21 (0.57–2.55)	0.615	0.92 (0.48–1.77)	0.801	1.28 (0.82–1.99)	0.277	0.90 (0.59–1.39)	0.637
Leaking urine	1.08 (0.69–1.71)	0.737	0.96 (0.66–1.40)	0.851	1.14 (0.87–1.48)	0.343	1.05 (0.83–1.32)	0.704
Headaches	1.74 (1.10–2.75)	0.018	1.16 (0.81–1.67)	0.423	1.06 (0.82–1.37)	0.668	1.15 (0.92–1.45)	0.228
Palpitations	1.03 (0.61–1.73)	0.925	1.10 (0.71–1.71)	0.670	0.96 (0.70–1.32)	0.796	0.85 (0.64–1.13)	0.252

OR, odds ratio; 95% CI, confidence interval

Table 6 The adjusted odds ratios obtained from logistic regression models showing the magnitude of associations between menopause-related symptoms and consultations with CAM practitioners in 2010, for natural menopausal women. Model is adjusted for all confounding variables, including education, marital status, area, income, private health insurance, smoking, alcohol, general practitioners, specialists, HRT use status, diabetes, impaired glucose tolerance, arthritis, heart disease, hypertension, low iron level, asthma, bronchitis, cancer, and osteoporosis

	Acupuncturist		*Naturopath/herbalist*		*Chiropractor/osteopath*		*Massage therapist*	
Symptoms	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*	*Adjusted OR (95% CI)*	*p*
Hot flushes	0.90 (0.66–1.24)	0.523	0.84 (0.64–1.10)	0.201	0.91 (0.75–1.10)	0.334	1.03 (0.87–1.23)	0.710
Night sweats	0.97 (0.69–1.37)	0.865	1.29 (0.97–1.71)	0.081	1.20 (0.97–1.48)	0.092	0.96 (0.79–1.16)	0.674
Depression	0.94 (0.67–1.33)	0.730	0.87 (0.65–1.16)	0.345	1.07 (0.86–1.34)	0.554	0.89 (0.73–1.08)	0.241
Anxiety	1.42 (1.04–1.94)	0.026	1.25 (0.96–1.63)	0.093	0.94 (0.77–1.16)	0.571	1.29 (1.08–1.54)	0.005
Tiredness	1.06 (0.82–1.38)	0.642	1.17 (0.94–1.44)	0.152	0.98 (0.84–1.15)	0.805	1.01 (0.88–1.17)	0.878
Stiff or painful joints	1.05 (0.79–1.41)	0.722	0.90 (0.72–1.14)	0.384	0.90 (0.75–1.07)	0.220	1.14 (0.97–1.32)	0.105
Back pain	1.57 (1.20–2.05)	0.001	1.12 (0.90–1.38)	0.311	2.25 (1.91–2.66)	<0.001	1.54 (1.34–1.78)	<0.001
Vaginal discharge	1.02 (0.64–1.64)	0.919	1.03 (0.69–1.53)	0.888	1.09 (0.82–1.46)	0.554	1.14 (0.88–1.47)	0.328
Leaking urine	1.04 (0.80–1.36)	0.776	0.96 (0.77–1.20)	0.711	0.96 (0.81–1.13)	0.622	0.96 (0.83–1.11)	0.592
Headaches	1.06 (0.83–1.35)	0.636	0.86 (0.70–1.06)	0.161	0.96 (0.82–1.12)	0.590	0.98 (0.86–1.13)	0.810
Palpitations	0.90 (0.66–1.24)	0.537	1.01 (0.78–1.32)	0.930	0.97 (0.80–1.18)	0.752	0.93 (0.78–1.11)	0.431

OR, odds ratio; 95% CI, confidence interval

1.08–1.54; $p = 0.005$), or 1.54 times greater for natural menopausal women experiencing back pain (95% CI 1.34–1.78; $p < 0.001$). Natural menopausal women were more likely to consult a chiropractor/osteopath if they experienced back pain (OR = 2.25; 95% CI 1.91–2.66; $p < 0.001$). There was no statistically significant association between menopause-related symptoms and the use of naturopaths/herbalists amongst natural menopausal women.

DISCUSSION

This is the first study to investigate the associations between consultations with a range of distinct CAM practitioner groups and menopause-related symptoms stratified by women with hysterectomy, oophorectomy, and natural menopause. Massage therapists and chiropractors/osteopaths were identified as the two most commonly visited CAM practitioners, which is in contrast to the findings from previous Australian research[7]. The disparity of popularity of CAM practitioner modalities across the two studies may due to the recruited population samples (e.g. nationally representative population or region-based population), menopausal status (e.g. pre-, peri- or postmenopause, or surgical menopause) and the included types of CAM practitioners.

Our study highlights several important findings in relation to the menopause-related symptoms of women who visited CAM practitioners. Women with hysterectomy in the study are less likely to consult acupuncturists for hot flushes, whereas they are more likely to consult acupuncturists for night sweats. A possible explanation for these findings is that women who have had a hysterectomy, after taking HRT, have mild hot flushes which could be relieved by lifestyle changes, or have accepted hot flushes as a natural part of menopause[6,17]. However, night sweats refer to a symptom more difficult to tolerate than hot flushes[18]. Most women experiencing night sweats need to seek advice from health-care providers for clinical treatments – the fact is that acupuncture treatment has some validation on clinical effectiveness for relieving night sweats[18,19]. As hot flushes and night sweats are closely related menopausal symptoms and were often analyzed together previously, our study suggests that conventional and CAM practitioners should inquire with menopausal women about these two symptoms separately.

In this study, back pain is the exclusive menopause-related symptom for consultation with chiropractors/osteopaths regardless of type of menopause. Further, back pain sufferers amongst women with oophorectomy and natural menopausal women are also more likely to consult massage therapists and acupuncturists. The effectiveness of massage, chiropractic/osteopathy and acupuncture has been reported in several studies with particular evidence for acupuncture and chiropractic used in treating back pain[20,21]. The finding regarding high consultations with massage therapists, chiropractors/osteopaths and acupuncturists is in line with a previous study on the use of CAM practitioners for back pain of the general female population[22]. The reason for chiropractors/osteopaths being the only CAM practitioner modality consulted by surgical and natural menopausal women experiencing back pain may be related to the Australian health-care setting and Australian women's perception of practitioner choices. To be specific, chiropractors and osteopaths have been well established for treating back pain and related problems[8,20]. Consultation with chiropractors/osteopaths is eligible for public subsidies for their services[8]. Meanwhile, the majority of Australian women place value on the familiarity with and qualification of conventional and CAM practitioners, given that chiropractic is more popular in women born in Australia compared to those born overseas and all chiropractors/osteopaths in Australia are university-trained practitioners[20,23].

Our analysis indicates that women with hysterectomy experiencing anxiety are more likely to consult massage therapists. Conversely, those experiencing depression are less likely to consult massage therapists. This finding is not surprising, as previous research has identified that anxiety was one of the main symptoms when general population sought treatment from massage therapists[14], and massage treatment was found to increase comfortable feelings to decrease anxiety[24]. Nevertheless, psychotherapy and antidepressants are considered the mainstream treatments for menopause-related depression to date[25]. This study shows natural menopausal women are also more likely to consult massage therapists and acupuncturists for anxiety – a finding supported by a randomized, crossover trial that demonstrated the effectiveness of acupuncture for reducing anxiety[26]. It is worth noting that women with oophorectomy experiencing anxiety or depression are not likely to consult any CAM practitioner group in the current study. Further research is needed to explore this issue as no relevant information is available currently.

Women with hysterectomy and natural menopausal women in the study are not likely to consult naturopaths/herbalists for any menopause-related symptoms. This result is contradictory to the findings reported in studies conducted before 2005 on women with menopausal symptoms from US and Australia that naturopaths/naturopathy was a common and effective CAM modality for relief of hot flushes, anxiety, and decreased energy[7,27]. The non-significant association between consultation with naturopaths/herbalists and menopausal symptoms may account for the increasing percentage of menopausal women who self-prescribe herbal products and purchase at a chemist, supermarket or any pharmacy for managing symptoms in recent years, as well as the national registration and credentials of other CAM practitioner professions in Australia[28].

In view of the greater presence of chiropractors/osteopaths and limited presence of naturopaths/herbalists in the context of managing a range of menopause-related symptoms, documenting menopausal women's consultations with CAM practitioners is beneficial to fully understand the true demand of CAM coverage of women in different types of menopause and to provide information that has implications for both CAM and conventional health-care services in menopausal care. Further work is required to identify the underlying decision-making process to consult each group of CAM practitioners from the perspective of women with specific symptoms in different types of menopause, to determine the factors influential in menopausal women's use of CAM practitioners.

There are four limitations to be considered when interpreting our findings. Information on consultations with CAM practitioners for menopause-related symptoms was self-reported which may affect the results of this study due to recall bias. Similarly, diagnoses were self-reported, without medical confirmation. Third, due to the age range of the participants in this sample, the findings may not be representative of all women who experience menopause-related symptoms. Fourth, there are only four types of CAM practitioner groups included in this study, which may lead to a lower prevalence estimate of consultation with CAM practitioners amongst menopausal women. The strength of this study lies in the analysis of a large, population-based, nationally representative sample. Therefore, the significant associations between symptoms and CAM use strongly suggested that CAM is used for the management of menopausal symptoms.

CONCLUSION

This is the first study to examine the associations between consultations with CAM practitioner groups and specific menopause-related symptoms stratified by menopausal types. Given the substantial consultations with CAM practitioners amongst menopausal women with a range of symptoms, it is important that all relevant health-care providers and health-service managers are mindful of CAM practitioner use in order to ensure safe, effective and coordinated treatment and support for menopausal women in their care. This research may also help support conventional health-care providers in their referrals to CAM practitioners, and serve as the grass-roots for increased research into CAM use in menopause care.

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