

Use of complementary and alternative medicines for menopausal symptoms in Australian women aged 40–65 years

Study question

This study was undertaken to document the prevalence of, and factors associated with, the use of complementary and alternative medicines (CAMs) for vasomotor symptoms (VMS) and other symptoms of menopause in Australian women aged 40–65 years.

Methods

We conducted a cross-sectional questionnaire-based study between October 2013 and March 2014 of 2020 Australian women living independently in the community. Participants were randomly recruited from a large, representative, national, continually refreshed database derived from the Australian electoral roll. Women were provided with: i) a comprehensive list of CAMs commonly used for VMS and other menopausal symptoms, and asked to indicate which they had used in the past 4 weeks; and ii) a list of CAM practitioners, and asked to indicate which they had consulted for menopausal symptoms in the past 12 months. Menopausal symptom frequency and severity were measured by the Menopause-Specific Quality of Life questionnaire. Women were excluded if they were unable to complete a questionnaire in English.

Findings

Of the 2020 participants, most were postmenopausal (1109; 54.90%), resided in metropolitan areas (1266; 62.70%) and were born in Australia (1623; 80.43%).

The prevalence of use of any CAM for VMS was 13.22%. Phytoestrogens were most commonly used for VMS (6.29%), followed by evening primrose oil (3.91%) and ginseng (1.73%). Compared with premenopausal

women, perimenopausal women (odds ratio [OR], 2.09; 95% CI, 1.42–3.06) and early postmenopausal women (OR, 1.83, 95% CI, 1.21–2.76) were more likely to use any CAM for VMS.

The prevalence of CAM use for other symptoms was 32.23%. Overall, fish or krill oil was the most commonly used for other symptoms (24.36%), followed by glucosamine (12.13%). Of the 358 women aged 60–65 years, 128 (35.75%) reported taking a fish oil supplement and 61 (17.04%) were taking glucosamine. Compared with premenopausal women, the likelihood of CAM use for other symptoms was significantly greater for perimenopausal women (adjusted OR [AOR], 1.41; 95% CI, 1.05–1.91) and postmenopausal women aged 40–< 55 years (AOR, 1.67; 95% CI, 1.22–2.29), 55–< 60 years (AOR, 2.04; 95% CI, 1.54–2.71) and 60–65 years (AOR, 2.53; 95% CI, 1.88–3.40). Women residing in non-metropolitan areas were less likely than metropolitan residents to use a CAM for other symptoms (AOR, 0.80, 95% CI, 0.65–0.97).

Overall, 8.33% of women (168/2017) reported having at least one consultation with a CAM practitioner, with women experiencing VMS and those who were educated beyond high school being the most likely to have consulted a CAM practitioner.

Limitations

A potential study limitation is that proficiency in English was required to complete the study questionnaire. This is unlikely to have affected the representativeness of our sample, as English literacy in Australian women exceeds 96%. Despite selection pressures (response rate, 34.53%), our sample was socioeconomically heterogeneous and nationally representative of women

in this age range in terms of demographic characteristics.

What this study adds to current knowledge

In 2002, concerns regarding the safety of menopausal hormone therapy triggered a dramatic decline in its prescription. Concurrently, the use of CAMs and consultation with CAM practitioners has grown. There is insufficient evidence to support the use of CAMs that are most visibly promoted for managing VMS, such as black cohosh and phytoestrogens. Women at midlife are also likely to be taking other CAMs, such as fish oil and glucosamine, primarily to prevent cardiovascular disease and manage joint pain. The efficacy of these treatments remains controversial.

We found that prevalence of CAM use and consultation with CAM practitioners was lower than reported in other studies. This is because we specifically asked women about CAM practitioner consultations for menopausal symptoms and limited the list of CAM therapies to those used for managing VMS and other menopausal symptoms.

Implications for practice

Health care providers need to actively guide women in the management of VMS and other menopausal symptoms. More judicious use of supplements such as fish oil and glucosamine, particularly by older women, is needed until their efficacy and safety profiles are better understood.

Competing interests: Susan Davis is a consultant and investigator for Trimel Pharmaceuticals, has received research grant support from Lawley Pharmaceuticals and has received an honorarium from Abbott Australasia. ■

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More judicious use of supplements such as fish oil and glucosamine, particularly by older women, is needed

For many of the 3.7 million women aged 40 to 65 years in Australia, who account for 14% of the population, menopause presents a health challenge. Use of oestrogen for the relief of menopausal vasomotor symptoms (VMS) (eg, hot flushes, night sweats) was common until 2002, when concerns about the safety of menopausal hormone therapy (MHT) arising from a Women's Health Initiative study¹ triggered a dramatic decline in the prescription of MHT. Concurrently, the use of complementary and alternative medicine (CAM) has grown considerably,² with one Australian study reporting that most women presenting to a menopause clinic had used CAMs for their menopausal symptoms.³ However, there is insufficient evidence to support the use of CAMs that are most visibly promoted for managing VMS, such as black cohosh and phytoestrogens.^{4,5} Women at midlife are also likely to be taking other CAMs to manage other menopausal symptoms.

The current prevalence of the use of CAMs specifically for menopausal symptoms in Australia is not known. We aimed to investigate the prevalence of CAM use and consultations with CAM practitioners for menopausal symptoms by Australian women at midlife.

Methods

Study participants

Recruitment to this study has been reported in detail elsewhere.⁶ In brief, between October 2013 and March 2014, women aged 40–65 years listed on a large, representative, national, continually refreshed database based on the electoral roll were randomly invited by telephone to participate in a survey about the health of women at midlife. The only exclusion criterion was inability to

Abstract

Objective: To document the prevalence of, and factors associated with, the use of complementary and alternative medicines (CAMs) for vasomotor symptoms (VMS) and other symptoms of menopause in Australian women aged 40–65 years.

Design, setting and participants: Cross-sectional questionnaire-based study of Australian women aged 40–65 years living independently in the community. Women able to complete a questionnaire in English were recruited by telephone between October 2013 and March 2014 from a large, representative, national, continually refreshed database derived from the electoral roll.

Main outcome measures: Use of CAMs for VMS and other menopausal symptoms (eg, arthralgia, depression and sleep disturbance), assessed using the Menopause-Specific Quality of Life questionnaire.

Results: Of 5850 women contacted, 2911 agreed to participate, and 2020 eligible women returned completed questionnaires (response rate, 34.53%). Most of the women were postmenopausal (54.90%), resided in metropolitan areas (62.70%) and were born in Australia (80.43%). The prevalence of use of CAMs for VMS was 13.22%. Phytoestrogens were most commonly used for VMS (6.29%), followed by evening primrose oil (3.91%) and ginseng (1.73%). Compared with premenopausal women, perimenopausal women (odds ratio [OR], 2.09; 95% CI, 1.42–3.06) and early postmenopausal women (OR, 1.83, 95% CI, 1.21–2.76) were more likely to use any CAM for VMS. The prevalence of use of CAMs for other symptoms was 32.23%; being postmenopausal and older were the factors associated with this use.

Conclusions: Australian women at midlife are using CAMs that are known to be ineffective for managing VMS. Health care providers need to be more involved in guiding women in the treatment of VMS and other menopausal symptoms. More judicious use of supplements such as fish oil and glucosamine, particularly by older women, is needed until their efficacy and safety profiles are better understood.

complete a questionnaire in English. A study questionnaire with a reply-paid envelope was posted to each woman who gave verbal consent. Return of a completed questionnaire was accepted as written informed consent. The Monash University Human Research Ethics Committee approved the study. We used the STROBE guidelines to report the study findings.

Questionnaire

The questionnaire provided women with a specific list of CAMs that are commonly used for relieving menopausal symptoms and asked them to indicate which of these they had

used in the past 4 weeks. For our analyses, we grouped these CAMs according to whether they are commonly used for VMS (eg, black cohosh, phytoestrogen products), sexual symptoms (eg, horny goat weed, maca) or other menopausal symptoms such as joint pain, sleep disturbance and mood (eg, fish or krill oil, glucosamine).

The women were also asked about their current use of systemic MHT, including prescription oestrogen, oestrogen plus progestogen (including the oral contraceptive pill and compounded hormones) and tibolone.

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The questionnaire further provided women with a list of CAM practitioners and asked them to indicate which, if any, they had consulted for menopausal symptoms in the past 12 months. The practitioner list comprised: chiropractor, naturopath, acupuncturist, herbalist, Chinese medicine practitioner, homeopath, osteopath, spiritual healer, kinesiologist, aromatherapist, iridologist and Ayurveda therapist.

Assessment of menopausal status

Women were classified as premenopausal, perimenopausal or postmenopausal using published algorithms⁷ derived from the Stages of Reproductive Aging Workshop + 10 criteria.⁸ Classification was based on age, history of bilateral surgical menopause, menstrual bleeding, VMS and hysterectomy. Use of systemic hormonal contraception or MHT was also taken into account. We further divided the postmenopausal group into women aged 40 to < 55 years, 55 to < 60 years, and 60–65 years.

Assessment of menopausal symptoms

We assessed menopausal symptoms using the Menopause-Specific Quality of Life (MENQOL) questionnaire, a validated self-administered instrument comprising four symptom domains: vasomotor, physical, psychological and sexual.⁹ Women reported if they had experienced each symptom in the past 4 weeks (yes/no) and the extent to which they were bothered by it (ranging from 0 [no bother] to 6 [extreme bother]). Each individual question had a range of 1–8, with 1 being no symptoms. The symptoms were rated on a seven-point Likert scale, and women who ranked their degree of bother as more than the midpoint of the item (score, > 5–8) were considered to have moderate–severe symptoms.

Sample size

We calculated that our required sample size was 2000, based on the primary study outcome of moderate–severe VMS, with a 95%

1 Basic demographics of study participants (*n* = 2020)

Characteristic	No. (%)
Mean age in years (SD)	52.62 (6.81)
Age group (years)	
40–49	835/2020 (41.34%)
50–59	827/2020 (40.94%)
60–65	358/2020 (17.72%)
Menopausal status	
Premenopausal	529/2020 (26.19%)
Perimenopausal	382/2020 (18.91%)
Postmenopausal	
Aged 40–< 55 years	307/2020 (15.20%)
Aged 55–< 60 years	444/2020 (21.98%)
Aged 60–65 years	358/2020 (17.72%)
Residential location	
Metropolitan	1266/2019 (62.70%)
Non-metropolitan	753/2019 (37.30%)
Region of birth	
Australia	1623/2018 (80.43%)
Europe	235/2018 (11.65%)
Other	160/2018 (7.93%)
Ethnicity	
White	1896/2012 (94.23%)
Aboriginal or Torres Strait Islander	15/2012 (0.75%)
Other	101/2012 (5.02%)
Education	
High school or less	832/2017 (41.25%)
Beyond high school	1185/2017 (58.75%)
Current relationship status	
Married or long-term relationship	1358/2016 (67.36%)
Not currently partnered	658/2016 (32.64%)
Paid work	
No	742/2016 (36.81%)
Yes	1274/2016 (63.19%)
Have children	
No	315/2017 (15.62%)
Yes	1702/2017 (84.38%)
Current use of systemic HT	246/2020 (12.18%)
Hysterectomy only	251/1896 (13.24%)
Surgical menopause	110/2020 (5.45%)
Menopausal symptoms*	
Any vasomotor symptoms	899/1727 (52.06%)
Any sexual symptoms†	956/1672 (57.18%)
Any psychological symptoms	1498/1728 (86.69%)
Any physical symptoms	1683/1728 (97.40%)

HT = hormone therapy. * Excluding women using systemic HT, hormonal contraception or non-hormonal therapy for menopausal symptoms. † Also excludes women using vaginal oestrogen. ♦

confidence interval of $\pm 2\%$ around a percentage prevalence estimate of 30%. We purposefully sampled women so that the age distribution of our sample population mimicked the age distribution of Australian women aged 40–65 years in 2011.⁶

Statistical analyses

The characteristics of study participants, use of CAMs and consultations with CAM practitioners are presented as frequencies and percentages.

We performed three separate logistic regression analyses, where the outcome variables were CAM use for VMS, CAM use for other symptoms, and consultations with CAM practitioners. Too few women were using a CAM intended for sexual function to justify separate regression modelling for this outcome. Factors associated with CAM use for VMS and other symptoms in bivariate analysis at $P < 0.05$ were included in the final regression models. All tests were two-sided and the α level was 0.05 for all statistical tests. We performed all analyses using Stata version 12.0 (StataCorp).

Results

Of 5850 women who were contacted, 2911 agreed to participate, and 2023 subsequently returned completed questionnaires. Three completed questionnaires were from women outside the study age range, so the final sample consisted of 2020 women (response rate, 34.53%). Most women were postmenopausal (1109; 54.90%), resided in metropolitan areas and were born in Australia (Box 1).

Current use of MHT was reported by 12.18% of the women; 13.24% had undergone hysterectomy without oophorectomy, and 5.45% had surgical menopause (Box 1). Among women not using MHT, 52.06% reported having VMS, 86.69% had psychological symptoms and 97.40% had physical symptoms. Among women not using MHT or vaginal oestrogen, 57.18% reported sexual symptoms.

Of women reporting any symptoms in the MENQOL domains, the symptoms were reported as moderate–severe by 12.80% (221/1727) for VMS, 19.86% (332/1672) for sexual symptoms, 15.39% (266/1728) for physical symptoms, and 16.15% (279/1728) for psychological symptoms.

CAM use for menopausal symptoms

The prevalence of use of at least one CAM for any menopausal symptoms was 39.16% (Box 2). Of the 2020 women, 267 (13.22%) reported using CAMs for VMS, with the most frequent use reported by perimenopausal women (18.85%; 72/382) (Appendix 1). Phytoestrogens were the most commonly used CAM for VMS (6.29%), followed by evening primrose oil (3.91%), ginseng (1.73%) and black cohosh (1.49%). Nearly half the women who used MHT had also used a CAM (112/246; 45.53%), including 34 women (13.82%) who had used a CAM for VMS. Only 16 women (0.79%) used a CAM for sexual symptoms.

Of the 2020 women, 651 (32.23%) used at least one CAM for other symptoms, with the most frequent use by postmenopausal women aged 60–65 years (Appendix 1). Overall, fish or krill oil was most commonly used for other symptoms (24.36%), followed by glucosamine (12.13%) (Box 2). Of the 358 women aged 60–65 years, 128 (35.75%) reported taking a fish oil supplement and 61 (17.04%) were taking glucosamine.

Factors associated with CAM use for menopausal symptoms

Compared with premenopausal women, perimenopausal and early postmenopausal women were significantly more likely to use any CAM for VMS (Box 3).

The likelihood of CAM use for other symptoms was significantly greater for perimenopausal and all postmenopausal women than for premenopausal women. Women residing in non-metropolitan areas were less likely than metropolitan residents to use a CAM for other

symptoms. Experiencing psychological or physical symptoms was not associated with the use of CAMs for other symptoms (Box 3).

Consultations with CAM practitioners

Overall, 8.33% of women (168/2017) reported having at least one consultation with a CAM practitioner for menopausal symptoms in the past 12 months (Appendix 2). The practitioners most frequently consulted were chiropractors (2.78%), naturopaths (2.68%) and acupuncturists (1.98%). The women most likely to have consulted a CAM practitioner were those experiencing VMS (adjusted odds ratio, 1.80; 95% CI, 1.20–2.71) and those who were educated beyond high school (adjusted odds ratio, 1.56; 95% CI, 1.07–2.29) (Appendix 3).

Discussion

In this large, representative, cross-sectional sample of Australian women aged 40–65 years, we found that 13.22% had used at least one CAM for VMS, similar to the proportion of women of this age who were using MHT. More than one in 10 women using MHT also used a CAM for VMS. We also found that a third of study participants reported the use of CAMs for other symptoms.

CAM use for VMS was highest in perimenopausal and early postmenopausal women, with the prevalence in these groups close to one in five. These women, compared with premenopausal and older postmenopausal women, also reported the most severe menopausal symptoms.⁶

Applying our findings to the 3.7 million Australian women aged 40–65 years would mean that 490 000 women had used CAMs for VMS in the past month, and 303 000 would have consulted a CAM practitioner for menopausal symptoms in the past year. In addition, 883 000 women would have taken fish or krill oil and 438 000 would have taken glucosamine in the past month.

Phytoestrogens, the most commonly used CAMs for VMS, have not been shown to be effective for treating VMS, either as food supplements or as concentrated tablets.⁵ Evening primrose oil, black cohosh and ginseng, the other commonly used CAMs for VMS, overall appear to be no more effective than placebo.^{10,11} Importantly, CAMs such as ginseng will have varying effects according to the species used and potency and bioavailability of the formulation.^{12,13} The effects are not always desirable, with the known side effects of ginseng including hypertension, diarrhoea, sleeplessness, mastalgia with diffuse mammary nodularity, skin eruptions and vaginal bleeding.^{12,13} Given the lack of evidence regarding benefit of CAMs for alleviating VMS, as well as the potential adverse effects and their high cost, the continuing use of these CAMs for this purpose cannot be supported.

We found that the prevalence of use of CAMs for other symptoms was high among older Australian women, with fish or krill oil and glucosamine the most commonly used. Fish oil is promoted for a wide range of conditions, most notably for preventing cardiovascular disease.¹⁴ Fish oil inhibits platelet aggregation and has been associated with a modest increase in bleeding time,¹⁵ but there has been controversy regarding its efficacy in preventing cardiovascular disease.¹⁶ Glucosamine, taken alone or in combination with other supplements such as chondroitin, is most commonly used for arthralgia. However, the United Kingdom's National Institute for Health and Care Excellence does not recommend the use of glucosamine or chondroitin for the management of osteoarthritis.¹⁷ Recent studies linking glucosamine to β -cell dysfunction and decreased insulin secretion¹⁸ raise concern, particularly in the context of high usage of this CAM by older people.

The higher prevalence of CAM use for symptoms other than VMS among women residing in metropolitan rather than non-metropolitan areas may reflect availability and income differentials between

2 Use of complementary and alternative medicines (CAMs) for menopausal symptoms in the past 4 weeks ($n = 2020$)

CAM use	No. (%)*
At least one CAM use	791 (39.16%)
CAMs for vasomotor symptoms	
Phytoestrogens [†]	127 (6.29%)
Evening primrose oil	79 (3.91%)
Ginseng	35 (1.73%)
Black cohosh	30 (1.49%)
Licorice extract	25 (1.24%)
Chasteberry (<i>Vitex agnus-castus</i>)	15 (0.74%)
Sage	11 (0.54%)
Dong quai	5 (0.25%)
Hops (<i>Humulus lupulus</i>)	5 (0.25%)
CAMs for sexual symptoms	
Maca (Koech Corp) or maca	10 (0.50%)
Horny goat weed	6 (0.30%)
CAMs for other symptoms	
Fish or krill oil	492 (24.36%)
Glucosamine	245 (12.13%)
Valerian	51 (2.52%)
Unknown compounds from a herbalist or naturopath	35 (1.73%)
Selenium	26 (1.29%)
St John's wort	25 (1.24%)
Chlorophyll	24 (1.19%)
St Mary's thistle	23 (1.14%)
Turmeric (Nalgescic Forte [Nutrition Care Asia])	18 (0.89%)
Grape seed extract	11 (0.54%)
Saw palmetto	3 (0.15%)
Zizyphus	2 (0.10%)
Tribulus	1 (0.05%)

* 20% of women used more than one CAM. † Included all phytoestrogen products (flax seed, linseed oil, phytoestrogen, red clover and soy supplements, as well as Promensil [PharmaCare Laboratories], MenoEze [Naturopathica], PhytoLife [Blackmores Australia] and Harmony [Martin & Pleasance]). ♦

these regions. Others have found that women with poor self-reported health or chronic diseases are more likely than their healthier counterparts to take supplements.¹⁹ In our study, women with psychological and physical symptoms of menopause were not more likely to take a CAM. This could be because such a high proportion of women reported psychological and physical symptoms, and because of the widespread indiscriminate use of fish oil and glucosamine in the community.

There is evidence that CAM use is supported by health practitioners.

A national survey found that about a third of Australian general practitioners self-identified as practising complementary therapy.²⁰ It is a cause for concern that a sizeable proportion of Australian practitioners are recommending ineffective therapies.

We found that the proportion of women consulting a CAM practitioner for menopausal symptoms was threefold lower than that reported by menopause clinic respondents (25.2%) in Australia.³ This difference is likely because our study used a community-based,

rather than clinic-based, sample. Our finding that chiropractors and naturopaths were the most commonly consulted CAM practitioners is consistent with a previous community-based survey.¹⁴

Our finding of a higher prevalence of CAM consultations among women educated beyond high school is similar to that in another

study, which found that better educated women were more likely to consult CAM practitioners.²¹ This may be a function of greater uptake of private health insurance (PHI) among educated women. Higher educational achievement, as a proxy measure of higher income, has been found to be associated with greater uptake of PHI.²² Furthermore, people with PHI have been found to be

significantly more likely than those without PHI to see CAM practitioners in Australia.²³ Many PHI funds provide cover for consulting CAM practitioners, such as homeopaths and naturopaths. However, these rebates are not yet underpinned by credible evidence of clinical efficacy, cost-effectiveness, safety and quality.²⁴

3 Logistic regression for the outcome variables of using at least one complementary and alternative medicine (CAM) for vasomotor symptoms (VMS) and other symptoms of menopause

Characteristic	Use of at least one CAM for VMS		Use of at least one CAM for other symptoms			
	Crude odds ratio (95% CI)	P	Crude odds ratio (95% CI)	P	Adjusted odds ratio (95% CI)	P
Menopausal status						
Premenopausal	1.00		1.00		1.00	
Perimenopausal	2.09 (1.42–3.06)	< 0.001	1.40 (1.03–1.89)	0.03	1.41 (1.05–1.91)	0.02
Postmenopausal						
Aged 40–< 55 years	1.83 (1.21–2.76)	0.004	1.67 (1.22–2.29)	0.001	1.67 (1.22–2.29)	0.001
Aged 55–< 60 years	1.17 (0.78–1.75)	0.46	2.04 (1.54–2.70)	< 0.001	2.04 (1.54–2.71)	< 0.001
Aged 60–65 years	1.10 (0.71–1.70)	0.68	2.54 (1.90–3.41)	< 0.001	2.53 (1.88–3.40)	< 0.001
Residential location						
Metropolitan	1.00		1.00		1.00	
Non-metropolitan	1.08 (0.83–1.41)	0.55	0.82 (0.68–1.00)	0.05	0.80 (0.65–0.97)	0.02
Education						
High school or less	1.00		1.00			
Beyond high school	1.10 (0.84–1.42)	0.50	1.17 (0.97–1.41)	0.11		
Current relationship status						
Married or long-term relationship	1.00		1.00			
Not currently partnered	1.16 (0.89–1.53)	0.27	1.02 (0.84–1.25)	0.83		
Paid work						
No	1.00		1.00			
Yes	0.93 (0.72–1.22)	0.61	0.94 (0.77–1.14)	0.53		
Have children						
No	1.00		1.00			
Yes	0.73 (0.53–1.02)	0.06	1.06 (0.82–1.38)	0.65		
Hysterectomy only						
No	1.00		1.00			
Yes	0.97 (0.65–1.43)	0.86	0.94 (0.71–1.26)	0.70		
Surgical menopause						
No	1.00		1.00		1.00	
Yes	0.64 (0.33–1.23)	0.19	1.61 (1.10–2.38)	0.02	1.24 (0.83–1.85)	0.3
Any psychological symptoms						
No			1.00			
Yes			1.20 (0.88–1.64)	0.24		
Any physical symptoms						
No			1.00			
Yes			1.25 (0.64–2.45)	0.51		

In contrast with consulting CAM practitioners, we found that use of CAM products was not associated with education level. This may be because of the lower cost burden of CAM products relative to consultations with CAM practitioners, and greater acceptance of use of CAM products in the community.^{14,25}

This is the first Australian community-based study of use of CAMs and CAM practitioners specifically for menopausal symptoms. Previous studies have reported overall use of CAMs by Australian women at midlife, with prevalence ranging from 48.5% to 82.5%,^{2,3,14} higher than our finding of 39.16%. The higher prevalence in these studies is due to the inclusion of a broader range of CAM therapies, such as change in diet, exercise and use of vitamins. A recent Australian study reporting a higher rate of consultations with CAM practitioners was not menopause-specific and included practitioners such as massage therapists.²⁶

An important strength of our study is the use of national random recruitment of a representative sample of

women, rather than convenience sampling. Although we were unable to compare the demographics of respondents and non-respondents, comparison with Australian 2011 census data has shown that our sample is nationally representative of women in this age range in terms of basic demographic characteristics, including metropolitan location.²⁷

A further strength of our study is that participants were provided with a comprehensive list of the CAMs specifically used for menopausal symptoms.

A potential limitation is that proficiency in English was required to complete the study questionnaire. This is unlikely to have affected the representativeness of our sample, as English literacy in Australian women exceeds 96%.⁶ Our response rate of 34.53% indicates that selection pressures were operative, but this rate is high compared with rates recently reported for similar studies.²⁸

In conclusion, a significant proportion of Australian perimenopausal and early postmenopausal women are using CAMs that are known to be ineffective for managing VMS. Furthermore, the use of fish oil and glucosamine supplements is common in the community, yet the efficacy and long-term safety of these supplements are yet to be established. Health care providers need to actively guide women in the management of VMS and other menopausal symptoms.

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Competing interests: Susan Davis is a consultant and investigator for Trimel Pharmaceuticals, has received research grant support from Lawley Pharmaceuticals and has received an honorarium from Abbott Australasia. ■

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