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Does nurses' role, health or symptoms influence their personal use of ingestible complementary and alternative medicines?

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ABSTRACT

Objectives: To investigate the influence of work-related characteristics, health, health behaviours and symptoms on ingestible biologically-based Complementary and Alternative Medicine (CAM) use within the Australian nursing and midwifery workforce.

Background: CAM use is widespread worldwide, but there is little research into nurses' and midwives' personal use of ingestible CAM in Australia.

Methods: An online survey in 2014–15 used validated instruments and items to examine use of ingestible biologically-based CAM (herbs, foods and vitamins, minerals, amino acids, enzymes and other supplements), and the health and work-related characteristics of 5041 nurses and midwives recruited through the New South Wales Nurses and Midwives Association and professional networks.

Results: A small proportion of nurses (6.8%) identified as personal CAM users. Most were female, older, worked in foundational roles (frontline Registered and Enrolled Nurses/Midwives) and used one CAM, most commonly a multivitamin, although Vitamin D, Fish Oil, Calcium and Glucosamine ± Chondroitin were also common. In comparison to non-users, CAM users were less likely to take sick days or indulge in risky drinking, but more likely to be symptomatic (with stiff joints, bodily/joint pain, severe tiredness, allergies, indigestion/heartburn), diagnosed with osteoarthritis and to adhere to healthy diet recommendations.

Conclusions: Findings showed a credible pattern of front line workers with physically demanding workloads that impact their physical health and are linked to frequent symptoms, using CAM treatments and achieving some success in being able to continue working and avoid sickness absence. Further investigation is warranted to protect and maintain the health of the nursing and midwifery workforce.

1. Background

Complementary and alternative medicines (CAM) have been described as 'practices and products that people choose as adjuncts to or as alternatives to Western medical approaches'[1] (pg 1281). In Australia, the Therapeutic Goods Administration defines complementary medicine as 'medicinal products containing such ingredients as certain herbs, vitamins and minerals, nutritional supplements, homoeopathic medicines and aromatherapy products'[2]. A variety of terms are used interchangeably when referring to CAM[3–5], and CAM methods are broad, varied.[6] and inconsistently operationalised[7] CAM methods or modalities include practitioner consultations (e.g. chiropractor, acupuncturist, etc.), as well as products that may or may not be recommended by a practitioner, purchased from health food stores, pharmacies, supermarkets or online.[8]

CAM are generally used to prevent, treat or manage illness,[5] with rationales for use including: (i) enhancing the mind's ability to influence bodily functions and symptoms (mind-body medicine); (ii) restoring health and overall well-being by manipulating the body and applying structured exercise regimes (manipulative and body-based practices); (iii) promoting health by identifying energy imbalances, healing the spirit and improving blood flow (energy medicine); and (iv) improving health through use of nature based products found in herbs, foods and vitamins (biologically-based practices),[8] a category which also includes minerals, amino acids, enzymes and other supplements for diet and health.[9] This categorization is not universally applied and

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studies vary in relation to what is encompassed within each.

Data on CAM use from population-based surveys span at least 20–30 years in the US [10]. Over that time steady use of CAM by general populations has been reported.[11] In the UK, CAM use has remained consistent at one in four adults.[12] since 1998, with an average one-year prevalence of CAM use at 41.1% [13] In the US, between 2002 and 2007, roughly four in ten adults (38.3%) used CAM within the previous 12 months,[12] most commonly non-vitamin, non-mineral, natural products.[11,14] These products were defined as 'taken by mouth …contain (ing) a dietary ingredient intended to supplement the diet other than vitamins and minerals' (pg. 22), and included herbs, other botanical products (e.g. soy or flax), and dietary substances such as enzymes and glandulars, for example, echinacea, ginkgo biloba, ginseng, feverfew, garlic, kava kava, and saw palmetto.[14]

In Australia between 1993 and 2005, between 50 and 70% of the general adult population used some form of CAM[15–18]. In the 1996 round of the Australian Longitudinal Study on Women's Health, 19%, 28% and 15% of members of the young, mid-age and older cohorts in rural and remote areas reported CAM use.[19] CAM is a big business; in 2010–11 Australians spent $2 billion on out of pocket expenses on complementary medicines, which exceeded the $1.6 billion costs of pharmaceutical medicines.[20]

People who choose to use CAM generally do so in an attempt to improve their health and well-being, to alleviate symptoms associated with chronic or terminal illness or alleviate side effects associated with the use of conventional modern medicines (Table 1)[14,21,22,2314, 21–23]. In the Western world, this is most commonly applied as an adjunct to 'complement' conventional care.[14] Musculoskeletal problems are the commonest medical conditions treated with CAM: for back pain/problems (17.1%), neck pain/problems (5.9%), joint pain/stiffness (5.2%) and arthritis (3.5%)[14]. In 2012, 54.5% of US adults suffered with a musculoskeletal pain disorder and 41.6% of these were using CAM, including chiropractic/osteopathy, herbal/natural products, massage therapy and yoga.[24] Recent reports suggest 8.7 million Australians (44.2%) use CAM[25], a lower rate than in the US, which might be linked to Australia's strict regulation of CAM[8] and hence possible trust of products.

Compared to many other countries, Australia has one of the most stringent regulatory frameworks for public supply of ingestible CAM. While these products are regulated as medicines under the Therapeutic Goods Act 1989[26], CAM may not undergo as extensive research and testing through industry and government funding as conventional modern medicines.[27] Limited scientific evidence of the safety and efficacy of CAM, and lack of policy often places healthcare professionals in difficult positions when it comes to making confident recommendations for use in professional practice.[1,9,22,27,28]

CAM are not generally considered part of conventional modern medicine.[29] but they are increasingly being integrated in healthcare delivery[30] This has driven inclusion of some knowledge of CAM into many medical, pharmacy and nursing degrees.[31,32] Professional factors such as discipline (GP, nurse or midwife), training type (overtly evidence based or otherwise), setting and specialization (clinical experience) have been shown to influence attitudes to CAM more than personal factors such as ethnicity and personal use.[33] There is a general consensus that doctors are more likely to hold negative attitudes towards CAM whilst nurses and midwives tend to be more supportive.[22,33–36] Nurses' and midwives' attitudes and beliefs towards CAM are commonly reported; one UK study, for example, found 70% felt CAM methods were effective.[21] However, many healthcare professionals remain undecided.[33,37]

Healthcare professionals' referral/recommendation of CAM to patients is a common research topic.[22,35] Nurses and midwives commonly recommend CAM in pregnancy and for labour induction/augmentation; for nausea and vomiting, relaxation, back pain, anaemia, perineal discomfort, postnatal depression and lactation issues.[7] Little research has been conducted on healthcare professionals' personal use of ingestible CAM[22] but the currently most commonly recommended and personally used biologically-based CAM are set out in Table 1 [21,22,38].

A range of personal and professional factors have been identified amongst healthcare professionals who recommend ingestible CAM to patients. These include the desire to enhance care and avoid medical interventions; philosophical alignment.[7] and personal use (with perceived benefit) [30] Personal CAM use may potentially influence its incorporation with conventional healthcare,[30]; some studies found nurses recommended CAM therapies more often than they used them personally [38,39] and others found high personal use associated with higher rates of recommendation to patients.[6,34] One study found healthcare professionals were eight times more likely to recommend CAM to pregnant women if they were themselves CAM users.[6] Personal and professional factors found to inhibit nurses and midwives from confidently recommending CAM in practice include religious beliefs, communication issues, difficulty identifying a suitable indication, affordability, limited knowledge of CAM[7], limited scientific evidence and legislative concerns.[40]

A small number of studies have examined the personal (rather than professional) use of ingestible CAM by nurses. Differences were seen between countries, with some studies finding a higher personal use of some form of CAM therapy compared to the general population,[30,34] whilst other studies found the reverse.[39] The proportion of personal users varied between 83% to 74% of nurses in Sweden,[40] Hong Kong,[23] and Australia[38] to 41% of UK nurses.[21] CAM products reported as used personally by nurses were essentially similar to those used by the general population for similar conditions (Table 1).

Table 1
Most common CAM: indications, recommendations and examples.[14,21,22,23,3814, 21–23,38]

Indications for population use of CAM	
• Heart & circulatory health	• Immune system function
• Joint/neck/back pain	• Menopause
• Vitamin deficiency	• Skin conditions
Ingestible biologically-based CAM most commonly used by healthcare professionals	
• Red Raspberry Leaf	• Ginger
• Echinacea	• Lavender
• St Johns Wort	• Fish Oil
• Peppermint	• Cod Liver Oil
• Garlic	• Omega3
• Black Cohosh & Blue Cohosh	• Calcium
• Vitamins C, D and Multivitamin	
Ingestible biologically-based CAM most commonly recommended by healthcare professionals	
• Vitamins B6 & E	• Evening Primrose Oil
• Acidophilus	• Zinc
• Castor oil	

2. Methods

2.1. Aims

This paper focuses solely on biologically-based CAM: that is, ingestible forms of CAM including herbs, foods and vitamins, minerals, amino acids, enzymes and other supplements.

To date there is limited research into ingestible biologically-based CAM use by nurses and midwives, and the factors that influence this amongst these professional populations in Australia.

This study therefore investigates the influence of:

(i) Nurses' and midwives' health, health behaviours and symptoms (symptom type and severity) on ingestible biologically-based CAM