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The self-prescribed use of aromatherapy oils by pregnant women

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ABSTRACT

Background: While some studies have reported effectiveness of aromatherapy oils use during labour there is no reported evidence of efficacy or risks of aromatherapy oils use for pregnancy-related symptoms or conditions. A number of aromatherapy oils are unsafe for use by pregnant women yet there is currently no research examining the prevalence and characteristics of women who use aromatherapy oils during pregnancy.
Aim: To conduct an empirical study of the prevalence and characteristics of women who use aromatherapy oils during pregnancy.
Methods: The research was conducted as part of the Australian Longitudinal Study on Women's Health (ALSWH), focusing on the nationally representative sample of Australian women aged 31–36 years. Data were collected via a cross-sectional questionnaire (n = 8200) conducted in 2009.
Results: Self-prescribed aromatherapy oils were used by 15.2% of pregnant women. Pregnant women were 1.57 (95% CI: 1.01, 2.43) times more likely to self-prescribe use of aromatherapy oils if they have allergies or hayfever, and 2.26 (95% CI: 1.34, 3.79) times more likely to self-prescribe use of aromatherapy oils if they have a urinary tract infection (UTI).
Conclusion: Our study highlights a considerable use of aromatherapy oils by pregnant women. There is a clear need for greater communication between practitioners and patients regarding the use of aromatherapy oils during pregnancy, as well a need for health care practitioners to be mindful that pregnant women in their care may be using aromatherapy oils, some of which may be unsafe.

1. Introduction

Complementary and alternative medicine (CAM) refers to those practices, therapies and products not traditionally associated with the conventional medical community or the medical curriculum, such as acupuncture, naturopathy, and aromatherapy among others.[1] CAM use is becoming increasing popular, especially amongst women.[1–3] The rates of CAM use internationally vary considerably from 26% in England[4] to 76% in Japan[5]. Within Australia the prevalence of CAM use has been reported to be 69%.[6] One area of practice where CAM is making its presence felt is in pregnancy and birth.[7]

1.1. CAM use in pregnancy

The prevalence of CAM use in pregnancy has been commonly reported to range between 20% and 60%.[8] The most popular CAM used by pregnant women include herbal medicine, vitamin and mineral supplements, relaxation therapies and aromatherapy.[9–11] The popularity of CAM for pregnancy and birth may be representative of the fact that both health professionals and women are striving to regain control of their needs and health issues in the ever-increasingly medicalised sphere of maternity care.[8,12] Interestingly, it has been highlighted that pregnant women who use CAM are more likely to be using more than one therapy/modality interchangeably[13] and that such women will predominantly seek information regarding CAM from friends, family members and the internet, rather than from health

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professionals.[8,10] This demonstrates that a high proportion of women are often self-prescribing rather than seeking professional guidance regarding CAM use in pregnancy.

1.2. Issues related to self-prescribed CAM use

Although the body of research focused on CAM is gradually evolving, the literature specifically related to the safety and trends of use within pregnancy is still lacking. Therefore, this raises concerns about the risks related to women's self-prescribed use of CAM therapies within pregnancy in the absence of rigorous research.[14] Here we define self-prescribed use of CAM as the use of complementary and alternative medicines or products purchased over-the-counter from a health food store, pharmacy or supermarket without advice from a health care practitioner. Furlow et al. stated that 63% of pregnant women did not consult with their health professional before commencing use of CAM. The majority of women stated that they did not disclose their CAM use simply because they were never asked about it by their health professional.[10] Alternatively, women may choose not to disclose their CAM use for fear of a negative response from their health professional.[15] There are concerns regarding possible adverse reactions between medications/conventional treatments and CAM and so this emphasises the need for greater collaboration between women and their care providers to ensure women are using CAM safely during their pregnancy.[2,7]

1.3. Aromatherapy use within pregnancy

Aromatherapy is the therapeutic use of highly concentrated essential oils and is a popular form of self-prescribed CAM used by pregnant women.[9,11] Evidence for the efficacy of aromatherapy during pregnancy, birth and postpartum is lacking with only two RCT studies included within a recent Cochrane Database Systematic Review.[16] Both studies were underpowered resulting in a lack of statistical significance and external validity due to small sample sizes. However, it is important to note that there are a number of challenges to conducting RCTs of aromatherapy, such as: recruitment and randomisation can be problematic because of participants' beliefs and preferences; the identification of an appropriate placebo is often difficult or impossible, thus making the blinding of patients and researchers difficult; and there is little incentive for aromatherapists to do research, coupled with inadequate research infrastructure, and poor access to research funding.[17,18]

Moving beyond such RCT research, studies have reported aromatherapy use in labour as being beneficial. Burns et al. found that the use of aromatherapy was rated as useful in labour by over 50% of the 8058 mothers who participated.[19] The study also found a significant 5.8% reduction in the use of pethidine for labour pain following the introduction of aromatherapy.[19] The findings of this study led to a large UK teaching hospital incorporating protocols for the use of aromatherapy within their maternity unit[20] and, further afield, aromatherapy is reportedly available within 76.6% of obstetric departments in Germany.[21]

It has been suggested that women's use of CAM, such as aromatherapy, may be motivated by a desire to avoid ingesting pharmaceutical medications during pregnancy, a position supported by women's common perception that CAM is 'natural' and 'free of side effects' (while not being fully aware of any associated risks).[9] Indeed, the use of volatile aromatherapy essential oils can be potentially unsafe in pregnancy and commentators have advised women to seek guidance from trained professionals (such as aromatherapists) rather than attempt self-administration.[22] While it is important to acknowledge that toxicity is related to dose and therefore mode of delivery, jasmine, juniper, peppermint, clove, cedarwood, sage and rosemary are all examples of aromatherapy essential oils that should be avoided during pregnancy, with some of them possessing abortifacient properties.[21] There are also essential oils such as clary sage, fennel and frankincense that should be restricted to use in the third trimester due to their emmenagogic properties[23] and certain oils such as clary sage should only be used under professional guidance.[23]

The potential dangers of aromatherapy use by pregnant women highlights the significance of better understanding where and how pregnant women are obtaining information regarding their CAM use. Without access to quality information, pregnant women's decision-making around the use of essential oils may be compromised, with serious implications for their pregnancy. Health professionals' lack of knowledge about CAM safety[2] and lack of awareness about where to refer women for guidance regarding these medicines has been considered by some to result in an increasing number of women self-administering CAM.[24]

Examples of common pregnancy symptoms for which women use aromatherapy include nausea, headache, asthma, urinary tract infection, allergies/hayfever, anxiety and depression, haemorrhoids, insomnia, labour pain relief, oedema and for relaxation purposes.[8,25] For symptoms/ailments such as asthma, allergies and hayfever, pregnant women may choose CAM, such as aromatherapy, as an alternative to medicated forms of relief. Although many anti-histamine medications are viewed as relatively safe for use during pregnancy, many women may still be hesitant, especially given that such symptoms may be endured *throughout* pregnancy and long-term use of anti-histamine use is not ideal.[26] In relation to headache treatment in pregnancy, the safety of simple analgesics such as paracetamol, codeine and non-steroidal anti-inflammatory drugs (NSAID's) such as ibuprofen is now debatable.[27] There have been links between paracetamol use during pregnancy and an increased likelihood of childhood asthma,[27] between use of NSAID's and higher miscarriage rates and possible links between codeine use in pregnancy and increased risk of cleft palates in infants.[28] In view of such evidence, it is understandable that women may seek CAM, including aromatherapy, in an attempt to reduce any potential effects on foetal development.

The use of aromatherapy by pregnant women has been largely under-researched and there has been no detailed empirical study of the prevalence and characteristics of such users undertaken in Australia to date. In response, this paper – reporting the first examination of the prevalence and characteristics of aromatherapy users amongst a large, nationally representative sample of pregnant Australian women – is a first step towards addressing this significant research gap and provides findings of importance to consumers, practitioners and health policy-makers.

2. Methods

2.1. Sample

This research was conducted as part of the Australian Longitudinal Survey on Women's Health (ALSWH) which was designed to investigate multiple factors affecting the health and well being of women over a 20-year period. Women in three age groups ("young" 18–23, "mid age" 45–50 and "older" 70–75 years) were randomly selected from the national Health Insurance Commission database. A total of 106,000 women in the three age groups were sent an invitation to participate and a questionnaire. Reminder letters, a nation-wide publicity campaign, information brochures, a freecall number for inquiries, and the option of completing the questionnaire by telephone in English or in the respondent's own language, were used to encourage participation. Response rates were 41% ($n = 14{,}792$), 54% ($n = 14{,}200$) and 36% ($n = 12{,}614$) for the three age groups, respectively. The focus of the study reported here are women