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Associations between complementary medicine utilisation and the use of contraceptive methods: Results of a national cross-sectional survey

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ABSTRACT

Background and purpose: This study examines the relationship between the use of complementary medicine (CM) interventions or consultations with CM practitioners and women's choice of contraceptive method.

Materials and methods: A secondary analysis of a cross-sectional survey of Australian Women aged 34–39 years from the Australian Longitudinal Study on Women's Health (ALSWH) was conducted. Associations between use of CM and contraception were analysed using Chi-squared tests and multivariate logistic regression.

Results: Based on the responses from the included women (n = 7299), women who consulted a naturopath/herbalist were less likely to use implant contraceptives (OR 0.56; 95% confidence interval (CI) 0.33; 0.95). Those consulting a chiropractor (OR 1.54; 95%CI 1.05; 2.25) or an osteopath (OR 2.16; 95% CI 1.32; 3.54) were more likely to use natural contraception.

Conclusion: There may be a link between women's choice of contraceptive method and their use of CM, in particular, with CM practitioner consultations.

1. Introduction

The use of complementary medicine (CM) – a broad array of treatments, practices and therapies not commonly included in conventional medical training [1] – is substantial in many countries throughout the world [2]. The users of CM are characterised as commonly female, mid-age and having more education when compared with non-users [3]. CM users also tend to have at least one medical condition and report poorer general health [3,4]. However, additional factors such as the location of residence may also impact on CM use in Australia whereby people in rural areas may be more likely to use CM compared to their urban counterparts [4]. Links exist between attitudinal factors and CM utilisation in the general population including concerns about the safety of pharmaceutical medication [4]. Parallel to these attitudes, CM users may also be interested in CM due to a desire to reduce unwanted side effects from conventional medicine, dissatisfaction with standard care and to assist disease management [4].

1.1. Contraception as preventive medicine

Contraception – here defined as "a product or medical procedure that interferes with reproduction from acts of sexual intercourse" [5] - is recognised as an important pillar to preventive medicine at a global level [6]. Broad categories of the available contraceptive methods are barrier methods; hormonal methods; emergency contraception; intrauterine methods; and sterilisation [7]. The safety [8], effectiveness [9], accessibility and acceptability [10] of contraceptive methods varies substantially between methods and among population groups. The decision to use one particular contraception method is often made based upon all of these factors as well as whether the method is long-lasting and the degree to which use of the method is easily remembered by the couple [11]. However, the most dominant three attributes described by women as informing their choice of contraception is effectiveness, safety and side effects [11].

1.2. Contraception methods for reproductive complaints

In addition to the use of contraception in family planning, hormonal-based contraceptive methods are also recommended for the management of a range of reproductive symptoms and conditions [12]. These recommendations are sometimes irrespective of the poor evidence of efficacy of this approach to treatment [13]. In line with this,

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52% of conventional care providers have identified as prescribing hormonal contraceptives to suppress menstruation in women with bleeding complaints in addition to, or irrespective of, the drug's action as contraceptive [14].

1.3. Contraception use in Australia

Over half of Australian women aged 18–49 years use some form of contraception [15]. Contraceptive methods most commonly used by women in Australia are the oral contraceptive pill (OCP) (30%) and condoms (23%), with long-term methods such as a contraceptive implant or intrauterine device (IUD) reported much less frequently (5%) [16]. OCP use declines as women age [17] while long-acting or permanent methods of contraception are more common among women living in inner regional or outer remote locations compared with women living in the major cities [18]. The choice of contraceptive method by women in Australia is influenced by the woman's aversion to real or perceived side effects [15] or overall dissatisfaction with the method [19]. Recommendations from medical doctors may also influence women's choice of contraceptive method [15].

1.4. Complementary medicine and reproductive health

A substantial prevalence of CM use has been reported in women attempting to conceive or improve their fertility [20], particularly in couples with diagnosed fertility issues [21], and in pregnant women [22]. Research has also identified CM use for the management of female sexual health complaints [23]. The relationship between CM use and other population-level preventive medicine interventions, such as childhood immunisations, have also been examined and the underlying factors associated with CM use identified as heterogeneous [24]. Additionally, there is emerging evidence that some CM have specific benefit in the management of some female reproductive complaints [25]. Alongside this growing evidence base is an increased awareness of potential interactions between some specific CM and existing contraceptive methods [26] and a philosophical and practical conflict between CM and conventional medicine in the approach to management of female reproductive conditions [27]. With this in mind, the relationship between choice of contraception and use of CM practitioners and products warrants further investigation. To advance our empirical understanding, the study presented in this paper analysed whether consulting with CM practitioners or using a variety of CM interventions is associated with the use of particular contraception methods in Australian women aged 34–39.

2. Materials and methods

The study reported here was conducted using data from the Australian Longitudinal Study on Women's Health (ALSWH), which has been designed to assess health and wellbeing and associated factors in Australian women [28]. For the sub-study reported here, analyses focused on 9151 women from the ALSWH 1973–1978 cohort, aged between 34 and 39 years at the time of the 2012 survey.

2.1. Instrument

2.1.1. Contraception utilisation

The survey asked women whether they had been using a variety of contraception methods momentarily. The following methods were collated to oral contraception: combined OCP, progestogen-only OCP, and unknown type of oral contraceptive. For implants, the following categories were collated: implant (e.g. Implanon), copper intrauterine IUD, progestogen IUD (e.g. Mirena), and vaginal ring (e.g. Nuvaring). Natural methods included the withdrawal method and the safe period method (e.g. natural family planning, rhythm method, Billings (ovulation) method, body temperature method, periodic abstinence). Furthermore, a separate category described the use of condoms.

The analysis excluded responses from women who indicated that they were trying to become pregnant. The analysis included responses from women who had recently given birth, had no sexual partner, or were unable to conceive for a variety of reasons as they may have used contraceptives for reasons other than contraception, e.g. hormonal conditions, prevention of sexually transmitted diseases.

2.1.2. Complementary medicine utilisation

The survey asked all participants if they had consulted a CM practitioner in the last 12 months (e.g. massage therapist, naturopath/herbalist, chiropractor, acupuncturist or other alternative health practitioners). It also asked how often they had used the following CM products and treatments in the past 12 months (e.g. vitamins/minerals, yoga/meditation, herbal medicines, Chinese medicines, other alternative therapies).

2.2. Statistical analyses

Chi-squared tests were used to compare the use of contraceptive methods between those who had consulted a CM practitioner or used CM therapies vs. those who did not. Multiple logistic regression analyses were conducted to determine whether CM utilisation, i.e. consulting a CM practitioner or using CM therapies (independent variables), was associated with the use of oral contraceptives/implant contraceptives/natural contraception/condoms (dependent variables). Analysis of all predictor variables provided adjusted odds ratios with 95% confidence intervals. The analysis was also adjusted for socio-demographic characteristics and confounding variables. Statistical significance was set at $p < 0.05$. All statistical analyses were performed using IBM SPSS® software (IBM SPSS Statistics for Windows, release 22.0. Armonk, NY: IBM Corp.).

Ethical approval

The study was negligible/no risk as it employed secondary analysis of existing data, and as such was not required to be considered for ethical approval.

3. Results

Of the 8009 women, 84 did not provide data on contraception, and 626 women were trying to get pregnant. As such these two groups of women were excluded from the analysis. Of the remaining women (n = 7299), 35.1% reported using no contraception, 25.0% used oral contraception, 12.5% used implant based contraception, 10.8% used natural contraception, and 23.4% used condoms.

Table 1 shows the associations between consulting a CM practitioner and the use of contraception. Women were significantly less likely to use an oral contraception if they consulted a naturopath, acupuncturist, chiropractor, massage therapist or 'other CM' practitioner, (all $p < 0.05$). The women were also less likely to have a contraceptive implant if they consulted with a naturopath, chiropractor, osteopath or 'other' CM practitioner (all $p < 0.05$). Women were more likely to use a natural method of contraception if they reported consulting a naturopath, chiropractor, osteopath or 'other CM' practitioner, (all $p < 0.05$), and more likely to use condoms if they consulted a naturopath, massage therapist or osteopath (all $p < 0.05$). Women were more likely to report not using any contraception if they were consulting with a naturopath ($p = 0.001$) or an acupuncturist ($p < 0.001$).

Table 2 shows the associations between the use of CM therapies and contraceptive use with similar patterns. For almost all CM therapies there was a negative association with the use of oral or implant contraceptives, but positive associations with natural contraception methods and condom use ($p < 0.05$). Women who reported no