Use of herbal product among pregnant women in Turkey

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ABSTRACT

Objective: This study was conducted to determine the herbal product use of pregnants as there is not adequate information relating to the rate of herbal product use during pregnancy in Turkey and what is thought about effects and side effects thereof.

Methods: It is a descriptive study consisted of 366 pregnants admitted to hospital for childbirth in gynaecology and obstetrics clinics of a public hospital or a university hospital. Data were collected with individual information form and question form of herbal product use in pregnancy. We conducted number, percentage, chi-square analyses.

Results: It was determined that 47.3% of the women had used at least one herbal product during pregnancy; the relationship between education level, working status, family structure, and status of herbal product use is statistically significant ($p < 0.05$). Linden, peppermint-lemon, ginger are the first three herbs used due to common cold-influenza frequently in pregnancy during 1 st and 2nd trimesters. More than half of the pregnants stated that they had started herbal product use without any suggestions from anyone, and profoundly low healthcare professional suggestion was detected.

Conclusion: Our study has showed that almost half of women use at least one herbal product during pregnancy. So few healthcare professionals give information to pregnants thereabout. Thus, providing information in general health education to pregnant women about benefits and damages of herbal product use, planning researchers on effectiveness of herbal products, assessment of healthcare professionals relating to the matter and provision of available guidelines and in-service education relating to herbal products that can be used during pregnancy may be suggested.

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1. Introduction

A variety of structural and functional changes take place within the scope of the natural process arising in pregnancy and some problems may consequently arise. Women frequently look for and use herbal products with the aim of preventing and treating health problems.[1-3] According to WHO, up to 80% of the population in Africa depends on traditional medicine for primary health care and in China, herbal medicines account for 30–50% of total medicinal consumption. In Europe, North America and other industrialized regions over 50% of the population have used complementary or alternative medicine at least once and complementary or alternative medicine is common among pregnant women, in particular.[4] The frequency of the use of herbal products during pregnancy varies due to cultural and regional differences. It has been stated that

7–45% of pregnant women in America and Australia used herbal products.[2-5] In a study conducted in the east of America, it was found that 45% of pregnant women used herbal treatments and in another study conducted in Australia it was found that 36% of pregnant women used at least one herbal product during pregnancy.[1] In a study of 578 women who were over 20 weeks' pregnant in England, it was determined that 57.8% of women used one or more herbal products in pregnancy.[6] The most frequently used herbs during pregnancy were generally reported to be chamomile, peppermint, raspberry leaf, rosehip, ginger, cranberry, blueberry and echinacea.[1,6-10]

Pregnancy is a predictive factor of alternative treatment including herbal medicines, and pregnant women use these treatment methods to relieve pregnancy-related complaints and symptoms.[8] Studies showed that herbal products were generally used in pregnancy for the treatment of nausea, vomiting, anxiety, stress, depression, back pain, induction of labour, headache, migraine, urinary tract problems, cough/common cold, indigestion and constipation.[1,6,9,11-13] The effectiveness and reliability of the herbal products which are frequently used to prevent and treat health

problems in pregnancy are still being investigated. Although some of these methods are beneficial and valuable for pregnant women, insufficient evidence can be found relating to their side effects and safety.[14] In the studies that have been conducted, pregnant women used herbal medicines on the advice of healthcare professionals as well on their own initiative.[7,15–17]

No data, either positive or negative, have been discovered relating to herbal product use in Turkey during pregnancy. Moreover, the rate of use of herbal products by pregnant women is not known. As the maintenance of the health of mother and baby is a key responsibility of healthcare professionals, it is very important that a pregnant woman provides useful information about the health problems she experiences in appointments and through monitoring. This study was conducted to assess the use of herbal products among pregnant women as there is no adequate information relating either to the rate of use during pregnancy in Turkey or to what is believed about effects and side effects.

2. Study questions

1. Which herbal products do pregnant women most commonly use?
2. Is there a relation between age, education level, employment, social insurance, income, family structure, number of pregnancies, whether the pregnancy was planned/desired, and the status of herbal product use?
3. How safe do pregnant women perceive herbal products to be?

3. Materials and methods

This cross-sectional study was conducted in Tokat, which is a province located in the Central Black Sea region in Turkey. It does not constitute a typical sample group. The research sample consisted of pregnant women admitted for labour and delivery to the gynaecology and obstetrics clinics of university and state hospitals in the city center from March to July 2014.

According to the hospital records, the number of women admitted to the university and state hospitals for delivery in 2013 was 3877. The sample of the study was determined to be 350 people using the sampling formula of known population [$n = Nt^2pq/d^2$ $(N-1) + t^2pq$].[18] In the formula, n: sample size, N: Population size, t: the value of the t table for 0.05 alpha level in two tail (1.96), (the alpha level indicates the level of risk the researcher is willing to take that the true margin of error that may exceed the acceptable margin of error), p: prevalence, q:1-prevalence (we accept p and q = 0.5 were the estimate of variance which produced the maximum possible sample size). Finally, d was the acceptable margin of error for the proportion being estimated at 0.05 (an error a researcher is willing to accept) and 366 participants were included.

Questionnaire forms prepared by reviewing the research literature about pregnant women and new mothers were used as the data collection tool. Interviews lasted approximately 30 min. The 'Individual Information Form' was a form consisting of 11 questions about the women's age, education, work, health insurance, income, family structure, etc. The 'Herbal Product Use in Pregnancy Question Form' was a form consisting of 10 questions about herbal product use in pregnancy, information about the product and information sources. The independent variable of this study is the socio-demographic features of the women while the dependent variable is the use of herbal products in pregnancy by these women. In this study, we coded the pregnant women who never used herbal products during pregnancy as "Proportion of women not using herbal products in pregnancy", and the pregnant women who used herbal products once or as "Proportion of women using herbal products in pregnancy".

3.1. Botanical names of plants

Ginger (zingiber officinalis roscoe), linden (tilia platyphyllos Scop.), peppermint (mentha x piperita L.), lemon (citrus), echinacea (echinacea sp.), St. John's wort (hypericum perforatum), chamomile (matricaria chamomilla L), cranberry (vaccinium macrocarpon), raspberry (rubus idaeus L.), blueberry (vaccinium myrtillus), rosehip (rosa canina L.), fennel (foeniculum vulgare mill), green tea (camellia sinensis).

Study data were coded with the SPSS 15 packet program accepting the statistical significance at the level $p < 0.05$, and number, percentage, chi-square analyses were assessed.

Permissions for the study were obtained from the institutions and the Clinical Researches Ethical Committee of the University (Approval No. 83116987-205). Verbal information was provided to all women participating in the study and written consent was obtained. Questionnaires were filled in by the interviewers at the face-to-face interviews.

4. Results

As shown in Table 1, 37.2% of women participating were in the age range 21–25, 87.4% were housewives, 34.2% had only completed primary school or below, the incomes of 80.3% were equal to their expenditure, 57.4% were living in a family with a nuclear structure. It was determined that 47.3% of the women (173) had used at least one herbal product during pregnancy; the relationship between education level, work, family structure and herbal product use was statistically significant ($p < 0.05$), the relationship between age, social insurance, income, number of pregnancies, planned/desired pregnancy, and herbal product use in pregnancy was statistically insignificant ($p > 0.05$) (Table 1).

Linden (23.2%), peppermint-lemon (20.2%) and rosehip (6.3%) were the three most commonly used herbal products in the 1st and 2nd trimesters due to general common cold or influenza during pregnancy. It was stated that 4.9% of women used ginger, 3.3% used chamomile, 1.9% used cranberry, 1.6% used blueberry and 1.4% used raspberry during pregnancy. Echinacea and St. John's wort (0.3%) were used the least during pregnancy (Table 2).

It was found that 58.7% of pregnant women started using herbal products without anyone suggesting it and 25.7% on the suggestion of a friend/relative etc., while only 13.9% took products following the suggestions of a healthcare professional. As shown in Table 3, 68.3% of women stated that they would like to receive information about herbal product use from clinicians, 22.4% from nurses, 19.9% from midwives and 16.4% from pharmacists. Only 31.7% of pregnant women stated that they might re-use herbal products in the future, 36.1% stated that using herbal medicines was safer than medication use, while 39.6% stated that they could not be sure. Of pregnant women, 54.6% thought that herbal products might be harmful for the health of both mother and baby, while 29.2% thought that they did not know of any harm from them (Table 3).

5. Discussion

Nowadays, treatment with herbal products is one of the most commonly mentioned topics in healthcare, and the relationships of the views of pregnant women towards herbal products, the prevalence of use and factors affecting these were examined. Despite the limited information relating to the safety and effectiveness of herbal products in pregnancy, use of herbal products is increasing due to cultural and regional factors, and the perception of herbs as natural and as not having the potential teratogenic effect of medications.[1] But as with medication, undesirable results, side