

## How often do women use non-drug treatment methods for psychiatric symptoms during pregnancy and postpartum periods?

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### Abstract

The aim of this study was to determine the prevalence of complementary and alternative medical applications (CAM) and non-drug treatments of women during their pregnancies, postpartum periods and the changes between these periods. The *Screening Form for Non-pharmacologic Methods Used during Pregnancy and Postpartum period* was administered to the participants. Passiflora (Incarnata), *Hypericum perforatum* (St. John's Wort), omega 3 supplements, bright light treatment, transcranial magnetic stimulation, S-adenosyl-methionine, herbal teas, biofeedback/neurofeedback, amulets, exercise, acupuncture and psychotherapy were investigated. The ratio of the use of one of the CAM methods for psychiatric complaints during people's lifetime was found to be 33.3% (n=162). Herbal teas were the main practice used during pregnancy (58.8%) and the postpartum. The use of CAM according to the utilization periods of the participants statistically significantly decreased in those who were currently pregnant (Cochran's Q=298.007; P<0.05). The use of participants' non-drug treatments in the periodical follow-up decreased in those who are currently pregnant and increased during the postpartum period.

### Introduction

Complementary and alternative medicine (CAM) is widely used all over the world and it is common in Turkey in a similar manner as the rest of the world. In recent years, CAM practices selected with traditional medicine have begun to be implemented in some state hospitals under the supervision of the ministry of health in order to contribute to improving the quality of life and health in Turkey.<sup>1</sup>

Women in the reproductive age consti-

tute the largest group among CAM users.<sup>2</sup> It has been determined that women prefer many products and treatments associated with CAM during their pregnancies<sup>3</sup> and postpartum periods<sup>4</sup> separate from the normal periods of their lives.

The utilization rates of CAM during pregnancy have been reported to be between 20% and 60%.<sup>5</sup> It was reported that women use CAM methods 37% of the time compared to conventional methods during pregnancy, 28% in the postpartum period and 40% in other periods even when the use of vitamins is excluded.<sup>6</sup>

Some individuals perceive CAM treatments as safer since CAM-related evidence is naturally accepted even though they are missing information or are prescribed differently than conventional methods.<sup>7</sup> In the literature, there are data regarding the fact that herbal treatments are not safe in terms of drug interaction and adverse effects.<sup>6</sup> On the other hand, the positive effects for pregnancy-induced nausea<sup>8</sup> and back pain have been also been reported in the literature.

Despite the claims of CAM practitioners, adequate evidence concerning the effects of these treatments during the pregnancy and in the postpartum period is not available.<sup>6</sup> Moreover, women are often unaware of the possible adverse effects of CAM use.<sup>9</sup> This lack of information in the literature is an important problem for women and healthcare providers. In addition, most patients are reluctant to inform their doctors about their use of CAM.<sup>10</sup> It has been reported that obstetricians also do not ask about CAM use during pregnancy and that one third of the mothers do not report CAM use to their doctors.<sup>11</sup> Furthermore, it is known that these practices are usually performed by non-healthcare professionals.

In the literature, it has been reported that CAM has been frequently used in many psychiatric disorders, especially depressive disorders.<sup>12</sup> Sometimes, non-medical methods such as amulets and prayer related to traditional religious beliefs are also added to search for CAM, which is important in this regard because of the way in which these factors affect patients' treatment practices.<sup>13</sup> The data on the effectiveness of the use of non-drug treatments in psychiatric disorders seem to be limited. Psychiatric disorders are common during pregnancy.<sup>14</sup> Psychiatrists are very cautious while using psychiatric drug treatments during pregnancy and in the postpartum period.<sup>15</sup> According to the general opinion of both healthcare professionals and patients, these alternative treatments are less harmful than psychiatric drugs.<sup>16</sup>

To our knowledge, there is no study

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concerning the subject of CAM for psychiatric reasons during pregnancy/postpartum period that has been done in our country. In this study, CAM methods, for which the effectiveness has not yet been demonstrated and which are known to occasionally cause a delay treatment, and treatment methods were included in the study. It was expected that a large database related to women's seeking of non-drug treatment seeking would be obtained. In terms of text fluency and ease of reading, all methods were discussed under the title of CAM in the text, and sub-titles were formed when required. It is important to obtain national data on both maternal and perinatal health on how often women use non-drug practices for psychological reasons during their pregnancies and postpartum periods. The aim of this study was to determine the prevalence of non-drug practices of women and their frequency during their pregnancies and postpartum periods and the change between these periods.

### Materials and Methods

This study was planned as a cross-sectional study investigating the seeking of CAM techniques and religious treatment during pregnancy and the postpartum period. A questionnaire form, prepared by the study team and consisting of a total of 15 questions about socio-demographic data,

information about pregnancy and delivery, and those seeking non-drug treatment was administered to pregnant women who were admitted to our department of Obstetrics and Gynecology between April 2017 and April 2018. The questionnaire form contained questions on alternative and religious treatment use during the most recent and previous pregnancies. The form included five Likert categories according to the investigated period: (1) Never; (2) Only once or twice; (3) Monthly (one to three times/month); (4) Weekly (at least once/week); and (5) Daily (at least once/day). Several items were included in the questionnaire selected for those seeking non-drug treatment, after evaluating the literature and our clinical experiences: Passiflora; St. John's Wort; omega-3 supplements; bright light treatment; TMS; S-adenosyl-methionine (SAME); herbal teas (apart from normal black tea); biofeedback/neurofeedback; Hijama; bioenergy; amulets; blessed water-like religious practices; exercise/fitness; acupuncture; psychotherapy, or others. Women <18 years of age whose native language was not Turkish and whose infants died within 24 hours after birth and using psychiatric drugs during pregnancy were not included in the study. The women who agreed to participate in the study and from whom an informed consent form was received were included in the study. The study protocol was based on the principles of the Declaration of Helsinki and approved by the Institutional Ethics Committee of our University.

## Statistics

The data obtained in the study were analyzed using the SPSS Statistical Package for Social Sciences for Windows 25.0 program. For the information collected from the participants, the frequency of the descriptive statistics was interpreted using the percentage values. The change in women's drug use according to periodical follow-up was analyzed by the Cochran's Q test. The error rate was determined in all tests, and in cases in which it was  $P < 0.05$ , the differences between the groups were considered statistically significant. Interpretations were derived based on the tables created by analyzing the data.

## Results

Socio-demographic data of pregnant women participating in the study are presented in Table 1. The average age of the women participating in the study was found to be  $29.15 \pm 6.14$ . It was seen that 29.3% of

the participants used psychiatric drugs for psychological reasons throughout their lives, and this drug was prescribed by the family physician in 0.7% of the cases, by a psychiatrist in 76.1%, by a neurologist in 16.2%, and by a physician in the gynecology branch in 5.6%. The rate of using one of the CAM methods for psychiatric complaints during the people's lives (excluding gestation period/periods) was found to be 33.3% ( $n=162$ ). When the CAM methods used by these patients at any time of their lives were examined, it was seen that the patients mostly preferred methods such as exercise (39.9%), herbal teas (37.4%), hijama

**Table 1. Information on participants' socio-demographic characteristics.**

	Frequency	Percent
Level of education		
Elementary school	82	16.9
High school	303	62
University	103	21.1
Marital Status		
Married	475	97.3
Single/Seperated	13	2.7
Gravida		
1	194	39.8
≥2	294	60.2
Parity		
0	227	46.5
1	151	30.9
≥2	110	22.6
Abortus		
0	375	76.9
1	84	17.2
≥2	29	5.9
Period of the pregnancy		
First trimester	74	15.8
Second trimester	165	35.3
Third trimester	229	48.9
Pregnancy risk factor		
Absent	296	60.7
Present	192	39.3
Using psychiatric drug throughout life		
Yes	143	29.3
No	345	70.7
Who recommended psychiatric drug		
Family physician	1	0.7
Psychiatrist	108	76.1
Neurologist	23	16.2
Obstetrician	8	5.6
Other	2	1.4
Using psychiatric drug any pregnancy		
None	447	92.2
0-3 Months	5	1.0
4-6 Months	18	3.7
7-9 Months	15	3.1
Who recommended drug use any pregnancy		
Psychiatrist	30	78.9
Neurologist	6	15.8
Obstetrician	2	5.3
Who recommended drug use current pregnancy		
Family physician	1	6.3
Psychiatrist	15	93.7

ma (37.4%), psychotherapy (26.4%), and amulets (20.2%) (Table 2). The rate of CAM use for psychiatric complaints in previous pregnancies by the participants was

**Table 2. Distribution of complementary and alternative medical applications methods preferred by people for their psychiatric complaints throughout their lives (excluding gestational period/periods).**

	Frequency	Percent
Passiflora		
None	155	95.1
Only once or twice	4	2.5
1 - 3 times per month	1	0.6
1-5 times a week	3	1.8
St. Jhon's Wort		
None	158	97
1 - 3 times per month	3	1.8
1-5 times a week	2	1.2
Omega 3 Supplement		
None	150	93.0
Only once or twice	3	1.8
1 - 3 times per month	3	1.8
Almost every day	7	1.4
Bright Light Treatment, none	163	100.0
TMS, none	163	100.0
SAMe, none	163	100.0
Herbal Teas		
None	102	62.6
Only once or twice	2	1.2
1 - 3 times per month	4	2.5
1-5 times a week	8	4.9
Almost every day	47	28.8
Neurofeedback		
None	162	99.4
1 - 3 times per month	1	0.6
Hijama		
None	102	62.6
Only once or twice	56	34.3
1 - 3 times per month	5	3.1
Bioenergy		
None	160	98.2
Only once or twice	1	0.6
1 - 3 times per month	1	0.6
Almost every day	1	0.6
Amulet		
None	130	79.8
Only once or twice	3	1.8
1 - 3 times per month	1	0.6
Almost every day	29	17.8
Exercise		
None	98	60.2
Only once or twice	1	0.6
1 - 3 times per month	3	1.8
1-5 times a week	2	1.2
Almost every day	59	36.2
Acupuncture		
None	154	93.3
Only once or twice	2	1.2
1 - 3 times per month	4	2.4
Almost every day	5	3.1
Psychotherapy		
None	120	73.6
Only once or twice	5	3.1
1 - 3 times per month	4	2.5
1-5 times a week	11	6.7
Almost every day	23	14.1

TMS: Transmagnetic stimulation, SAMe: S-adenosyl-methionine, Herbal Teas: apart from normal black tea.

found to be 6.4% (n=31). When CAM methods used by participants in their previous pregnancies were examined, it was found that herbal tea (67.7%), amulets (29%), exercise (45.2%), and psychotherapy (22.7%) were mostly preferred (Table 3).

The rate of using one of the CAM methods by the participants during their current pregnancy was found to be 3.6% (n=17). The CAM methods preferred by women during their current pregnancy were herbal teas (58.8%), amulets (17.6%), and exercise (47.1%) (Table 4). In this study, it was found that the participants preferred the CAM methods over conventional methods by 9.2% for psychiatric complaints during any postpartum period (n=45). The distribution of the non-drug methods used during any postpartum period (two months postpartum) is also presented in Table 5. It was found that herbal teas (73.3%), amulets (24.4%), exercise (55.5%), hijama (8.9%), and psychotherapy (22.2%), acupuncture

(4.4%) and passiflora were also preferred during the postpartum period. The change in use of one of the non-drug methods by patients for psychiatric complaints by the utilization time was analyzed by the Cochran's Q test. According to the obtained results, it was determined that there was a statistically significant difference between the change of the utilization of one of the non-drug methods by the utilization period (Cochran's Q=298.007; P<0.05). It can be said that the use of participants' non-drug treatments in the periodical follow-up decreased in those who are currently pregnant and increased during the postpartum period.

### Discussion

This is the first study in which the seeking of non-drug treatment used in the absence of pregnancy, during pregnancy, and during the postpartum period for psychiatric reasons were evaluated in this context. Pregnant women have a tendency to use CAM to relieve specific pregnancy-related complaints, including back pain, fatigue and dysuria.<sup>17</sup> In a recent study, the prevalence of CAM applied during pregnancy has been researched, and it has been

observed that 41.1% of women during pregnancy prefer these practices due to pregnancy-related complaints resulting from conventional methods.<sup>18</sup> In our study, it was found that the rate of use of one of the non-drug methods for psychiatric complaints by women was 33.3% (n=162) throughout their lives, 6.4% (n=31) during previous pregnancies, 3.6% (n=17) during the current pregnancy, and 9.2% (n=45) during the postpartum period. Similar to other studies in the literature, it was observed in our study that CAM practices were frequently preferred by women during pregnancy.<sup>2</sup> However, in our study, the rates of using CAM during pregnancy were found to be lower compared to those in the literature.<sup>5</sup> The decrease in the use of CAM practices during pregnancy for psychological reasons

**Table 3. Complementary and alternative medical applications methods used by people for their psychiatric complaints during any pregnancy (except the current pregnancy).**

	Frequency	Percent
Passiflora, none	31	100.0
St. Jhon's Wort, none	31	100.0
Bright Light Treatment, none	31	100.0
TMS, none	31	100.0
SAMe, none	31	100.0
Neurofeedback, none	31	100.0
Bioenergy, none	31	100.0
Acupuncture, none	31	100.0
Omega 3 Supplement		
None	29	93.6
1-5 times a week	1	3.2
Almost every day	1	3.2
Herbal Teas		
None	10	32.3
1 - 3 times per month	1	3.2
Almost every day	20	64.5
Hijama		
None	30	96.8
1 - 3 times per month	1	3.2
Amulet		
None	22	71.0
Only once or twice	2	6.5
1-5 times a week	1	3.2
Almost every day	6	19.3
Exercise		
None	17	54.8
Almost every day	14	45.2
Psychotherapy		
None	24	77.3
Only once or twice	1	3.2
1 - 3 times per month	2	6.5
1-5 times a week	2	6.5
Almost every day	2	6.5

**Table 4. Complementary and alternative medical applications used by people for their psychiatric complaints during their current pregnancy.**

	Frequency	Percent
Passiflora, none	17	100.0
St. Jhon's Wort, none	17	100.0
Omega 3 Supplement, none	17	100.0
Bright Light Treatment, none	17	100.0
TMS, none	17	100.0
SAMe, none	17	100.0
Neurofeedback, none	17	100.0
Hijama, none	17	100.0
Bioenergy, none	17	100.0
Acupuncture, none	17	100.0
Herbal Teas		
None	7	41.2
Only once or twice	1	5.9
Almost every day	9	52.9
Amulet		
None	14	82.4
Almost every day	3	17.6
Exercise		
None	9	52.9
1-5 times a week	1	5.9
Almost every day	7	41.2
Psychotherapy		
None	16	94.1
Almost every day	1	5.9

**Table 5. Distribution of the complementary and alternative medical applications methods used by people for their psychiatric complaints during any postpartum period (two months postpartum).**

	Frequency	Percent
St. Jhon's Wort, none	45	100.0
Omega 3 Supplement, none	45	100.0
Bright Light Treatment, none	45	100.0
TMS, none	45	100.0
SAMe, none	45	100.0
Neurofeedback	45	100.0
Bioenergy	45	100.0
Passiflora		
None	42	93.4
Only once or twice	1	2.2
1-5 times a week	2	4.4
Herbal Teas		
None	12	26.7
Only once or twice	1	2.2
1 - 3 times per month	1	2.2
Almost every day	31	68.9
Hijama		
None	41	91.1
Only once or twice	4	8.9
Amulet		
None	34	75.6
Only once or twice	1	2.2
Almost every day	10	22.2
Exercise		
None	20	44.5
Only once or twice	1	2.2
1 - 3 times per month	1	2.2
1-5 times a week	1	2.2
Almost every day	22	48.9
Acupuncture		
None	43	95.6
1 - 3 times per month	1	2.2
1-5 times a week	1	2.2
Psychotherapy		
None	35	77.8
1 - 3 times per month	2	4.4
1-5 times a week	1	2.2
Almost every day	7	15.6



with a corresponding increase in preference for CAM for the pregnancy-associated symptoms may be due to the fact that psychiatric symptoms are less common than the usual pregnancy-related physical complaints or that these symptoms are ignored. According to our data and in cases in which women's tendencies to receive treatment for psychiatric symptoms during pregnancy in the literature were evaluated.<sup>19</sup> It does not seem possible that these symptoms were recognized and medicated. When the CAM practices are examined, herbal tea attracts attention as the most preferred CAM practice during all of the periods. In the study of Koç *et al.*, 36.5% of pregnant women using CAM preferred herbal methods.<sup>20</sup> Besides the preliminary acceptance that herbal teas are harmless, the fact that they are normally preferred due to easier to access, these teas and their facilitating effect on fluid intake could be the reason for this preference.

The use of non-drug treatments according to the utilization periods of the participants statistically significantly decreased in those who were currently pregnant (Cochran's  $Q=298.007$ ;  $P<0.05$ ) (Figure 1). In the postpartum period, non-drug treatment increased compared to the gestational period, which was similar to previous studies.<sup>4</sup> In our study, herbal teas were the main practice used during pregnancy and the postpartum period. It was previously reported that some of the herbal teas could be effective for sleeping problems and symptoms of depression during the postpartum period.<sup>21</sup> It has been reported that the use of herbal treatments alone or in combination with drugs helps to reduce the symptoms of postpartum depression.<sup>22</sup> It has also been shown that the use of saffron led to a significant decrease in Beck Depression scores compared to placebo.<sup>22</sup> However, the main concern of the use of herbal treatments is the purity and safety of plants and herbal formulations and the possible lack of communication between the patient and healthcare provider about their use.<sup>23</sup> Furthermore, the fact that patients' attempt to manage their serious psychiatric symptoms using herbal treatments without referring to expert assessment may cause diseases to become chronic and more complicated. The ratios in this study suggest that this area is also important during pregnancy and the postpartum period as an area the awareness of which needs to be developed.

The American College of Obstetrics and Gynecology recommends that pregnant women without any obstetric contraindication exercise moderately for 30 minutes a day.<sup>24</sup> There are some studies indicating that the women in the postnatal period should be encouraged to undertake moderate exercise

in their daily lives to reduce their stress and fatigue and to improve their sleep quality.<sup>25</sup> In this sense, the high ratios found in our study are satisfactory in that women also use exercise to cope with psychiatric symptoms during pregnancy and the postpartum period, but they should be further investigated.

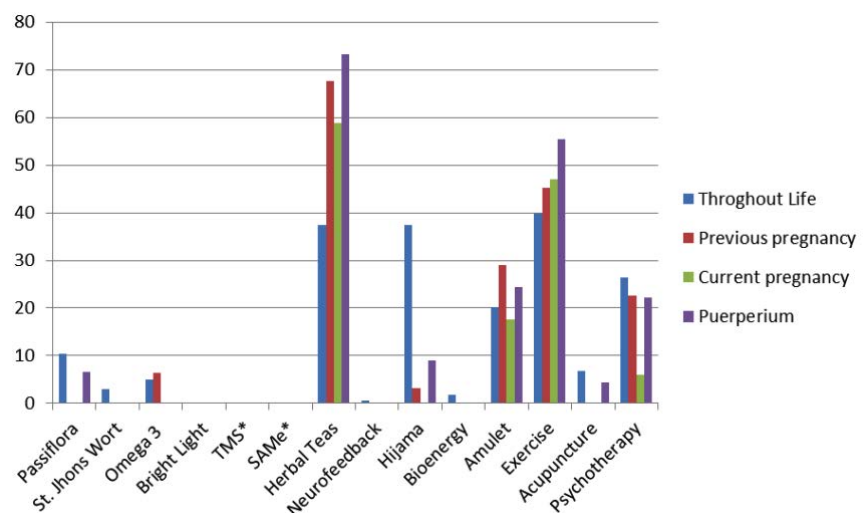
The data concerning acupuncture practices during pregnancy and the postpartum period are inadequate. The use of acupuncture to treat major depressive disorder during pregnancy is supported by a high level of evidence in a review.<sup>26</sup> In our study, it was seen that women preferred acupuncture practice during the postpartum periods, rather than during their pregnancies.

While St. John's Wort, omega 3 supplements, bright light treatment, TMS, SAM, neurofeedback, and bioenergy practices are included in the literature and which have been reported to be administered anecdotally in the patients admitted to the psychiatric clinic, it was determined that the women in our study sample did not use them during their pregnancies and their postpartum periods. SAM has been demonstrated in few studies that it could be as effective as antidepressants in treating major depressive disorder, there is no data on its effects during antepartum depression.<sup>7</sup> It has been recently shown that omega 3 supplementation for 16 weeks did not prevent the depressive symptoms in the mother during the postpartum period in a sample consisting of Brazilian women.<sup>27</sup> In the studies concerning bright light treatment, it was observed that the number of participants

was low, and the net effect was not revealed.<sup>28</sup> In our study, this method was not preferred by the patients. There is a need for large-scale randomized controlled trials to be carried out in this area.

In this study, it was seen that women used psychotherapy practices during their pregnancies and postpartum periods. In this study, which was not focused on diagnosis, it was seen that the lowest rates of psychotherapy occurred in the pregnancy period. Whether it was caused by a decrease in need or a decrease in access to treatment was not indicated by this study design. It is one of the limitations of this study, and the studies carried out by creating individual titles, such as prospective, diagnostic-focused, and psychotherapy may give us the answer of this question. With respect to the study limitations, perinatal and maternal results of the pregnant women included in the study were not recorded since birth data could not be obtained. Furthermore, CAM effects on breastfeeding were also not questioned. Diagnostic tests or interviews were not performed with respect to psychological aspects that caused patients to use CAM, and self-reports of the women were considered adequate. In addition, the problems encountered by the patients using CAM during practice and the adverse effects were not questioned.

On the other hand, three aspects constitute the strengths of this study: (1) the large sample size; (2) the fact that we examined the non-drug treatments, which are fairly up to date and are prone to malpractice, during pregnancies and postpartum periods, which



TMS: Transmagnetic stimulation, SAMe: S-adenosyl-methionine.

**Figure 1. Changes in the utilization of one of the complementary and alternative medical applications methods for psychiatric complaints by utilization time.**

are very sensitive periods for women; and (3) the fact that we documented the current status on this issue by statistical data. Such screening efforts are important for identifying problems in society and to develop appropriate therapeutic policies.

## Conclusions

It is known that many different types of treatments, accepted as CAM, have different risk profiles and may have various effects on maternal and fetal health. There is a need for further clinical trials consisting of different designs to determine the effectiveness and safety of these methods and treatments for pregnant and postpartum women and their babies. It is important to determine the evidence for these methods in order to establish better rules for CAM practices and services in our country.

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