

PAPER DETAILS

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ORIGINAL RESEARCH

Attitudes of Infertile Women towards Complementary and Alternative Medicine Methods

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Abstract

Objective: To determine the complementary and alternative medicine practices used by infertile women and to evaluate their attitudes towards these practices.

Material-Method: This descriptive and correlational study was carried out between February-May 2022 with 94 infertile women reached by snowball sampling on the online platform. In the collection of data, the “Questionnaire on Complementary and Alternative Medicine Methods” and the Complementary, Alternative and Conventional Medicine Attitude Scale has been used.

Results: The mean age of the women participating in the study was 34.48±7.66 years. It was determined that the participants got an average of 109.69±18.81 points from the Complementary, Alternative and Conventional Medicine Attitude Scale. After the diagnosis of infertility, 60.4% of women used any complementary and alternative medicine methods, and among these methods, onion cure (30.2%) as a nutritional supplement, applying honey directly into the vagina (46.4%), going to spas (50.0%), and praying and worshipping (74.7%) were preferred.

Conclusion: It was determined that majority of the infertile women use any complementary and alternative medicine method, and their attitudes towards traditional and complementary medicine are moderate level. It is recommended to carry out experimental and evidence-based studies with larger samples in order to determine the benefit/harm status of the applications.

Keywords: Infertility, Complementary and Alternative Medicine, Traditional Method

INTRODUCTION

Infertility is defined as the inability to conceive or maintain a pregnancy despite having regular unprotected sexual intercourse for a year¹. Infertility is known as a public health problem affecting many women in the world, and it is estimated that 8-12% of couples are affected by infertility all over the world². The prevalence of infertility in Turkey varies between 10-15%³, and one out of every six married women has infertility problems⁴. While infertility may occur due to female-related, male-related, and both female and male-related causes, it can also occur for “unexplained” reasons that are not accompanied by any pathological findings. The most common causes in women are ovulation disorders, anovulation, tubal factors, peritoneal factors, uterine factors and cervical factors. In men, testicular problems that affect the production or function of sperm are sperm function problems and

sperm conduction problems^{5,6}. In addition to these problems, the age of the couple, sexual intercourse habits, previous pelvic operations, alcohol, smoking and substance use, sexually transmitted diseases, drugs and chemical expose, stress are risk factors for infertility⁵.

In infertile couples, treatment is planned specific to the underlying problem. With the general evaluation of the couple and the determination of the cause, medical treatment and surgical treatment and assisted reproductive techniques (ART) are used and a long treatment process awaits the couples⁵. In this long treatment process, the couple, who think that they cannot fulfill the duty of having a child and being a companion-mother, which is of great importance to the society, is negatively affected psychosocially. In this process, couples may experience emotional problems, lack of control and self-esteem, marital problems, anxiety, stress,

and depression⁷⁻¹⁰.

ART are applications that require high cost and time. The high rate of treatment failure and the increased cost and stress resulting from repeated IVF cycles lead couples to alternative treatments¹¹. Traditional and alternative complementary therapies (CAM) are practices based on traditions, beliefs, and experiences in order to maintain the continuity of health in addition to diagnosis and treatment¹². It is known that CAM applications have been used in infertility for about thirty years, but studies with high evidence value are limited^{11,13}. Patients aiming to increase the likelihood of conception tend to use complementary and supportive care interventions that are safer, more effective, and affordable¹⁴. In Turkey, the rate of CAM use of infertile couples was determined as %51-82^{11,15-17}, while this rate changed between %41-91 in other countries¹⁸⁻²⁰. Although the CAM methods used vary from country to country according to culture, geography, and traditions, it is known that acupuncture, massage, nutritional supplements, herbal methods, mind and body applications (hypnosis, yoga, meditation), homeopathy and psychotherapy applications are mostly used in infertility²¹.

This study was aimed to determine the complementary and alternative medicine practices used by infertile women and to evaluate their attitudes towards these methods.

MATERIALS AND METHODS

Type of the study

This study was conducted with a descriptive and correlational type.

Study sample

The study population consisted of infertile women who could be accessed online during the study period, while the sample consisted of 94 infertile women who could be accessed online with the snowball sampling method and met the inclusion criteria of the study.

Inclusion criteria

- Being a woman diagnosed with infertility
- Receiving fertility treatment or preparing for the treatment process (all the treatment types included such as oral medication, injections, intrauterine insemination, oocyte pick-up, or embryo transfer)
- Being able to read and understand Turkish

Exclusion criteria

- Being pregnant after IVF treatment
- Not participating in the study voluntarily.

Data collection

This study was conducted online between February-May 2022. Online survey links were sent to the participants, and it took approximately 15 minutes for each participant to fill out the data collection forms.

Data collection tools

Introductory Information Form, Questionnaire on Complementary and Alternative Medicine (CAM) Methods and Complementary, Alternative and Conventional Medicine Attitude Scale (CACMAS) were used as data collection tools.

Introductory information form

It was created by researchers and consists of 13 questions questioning sociodemographic characteristics and infertility history.

Questionnaire on complementary and alternative medicine (CAM) methods

It was created by researchers in line with the literature¹¹ and consists of 13 questions regarding the applied CAM methods.

Complementary, alternative and conventional medicine attitude scale

This scale is a 27-question scale consisting of three subscales. 22 of the scale items consist of positive statements and 5 of them are negative statements. Scoring of the scale is made in a 7-point Likert scale ranging from 1-7 from "strongly disagree" to "strongly agree". The scale does not have a cutoff value, but as the score obtained from the scale increases, it is interpreted as a positive attitude towards traditional and complementary medicine²². In the validity and reliability study of the scale, the Cronbach's alpha coefficient was found to be 0.808. In this study, the Cronbach's alpha coefficient of the scale was found to be 0.751.

Ethical approval

Ethical approval was obtained for the research from the Human Research Ethics Committee of Istinye University (Protocol no: 22-05)

Statistical analysis

The online data of the study were transferred to the SPSS 26.0 program, and descriptive analysis including numbers, percentages, means, and standard deviation values has been done. The Kolmogorov-Smirnov test was used to evaluate the normal distribution. Since the data does not distribute normal, nonparametric tests were used such as Mann-Whitney U, Kruskal Wallis, and Spearman correlation for intergroup comparisons, and Bonferroni correction was used for further analysis and considering a significance level alpha as $p < 0.05$.

RESULTS

The mean scores of the participants from the CACMAS are given in Table 1 and total scale mean

score was found 109.69 ± 18.81 points (min:71; max:160) .

Table 1. CACMAS Scores

Features	Min-max	Mean± S.D
Philosophical congruence with complementary and alternative medicine subscale	10-56	31.81±10.91
Dissatisfaction with conventional medicine subscale	10-56	26.05±11.33
Holistic balance subscale	15-63	51.83±9.29
CACMAS Total Score	71-160	109.69±18.81

SD: standard deviation

The age of 94 infertile women participating in this study was 34.48 ± 7.66 years, and the findings

regarding the socio-demographic characteristics of the participants are given in Table 2.

Table 2. Characteristics of the Participants and Comparison with CACMAS Score

Features	Min-max	Mean± S.D	Test/p
Age	22-60	34.48 ± 7.66	$r_s: 0.043$ $p: 0.67$
Length of marriage (year)	1-35	10.50 ± 7.98	$r_s: 0.163$ $p: 0.11$
	n	%	Test/p
Education level	Primary or lower level	42	KW: 0.677 $p: 0.71$
	High school	33	
	University and above	21	
Income level	Less than expenses	24	KW: 0.186 $p: 0.91$
	Equal to expenses	59	
	More than expenses	13	
Working status	Yes	33	Z: -0.660 $p: 0.50$
	No	63	
Have you been pregnant before?	Yes	34	Z: -0.671 $p: 0.50$
	No	62	
Do you have any living children?	Yes	30	Z: -0.075 $p: 0.94$
	No	66	
Cause of infertility	Female	35	KW: 2.129 $p: 0.54$
	Male	16	
	Both female and male	10	
	Unexplained	35	
How long have you been receiving fertility treatment?	Less than 1 year	29	KW: 13.497 $p: 0.00^*$
	1-3 year	26	
	3-5 year	14	
	More than 5 year	27	
At what stage are you currently in treatment?	Ovulation follow up	18	KW: 6.306 $p: 0.17$
	IUI	13	
	OPU	8	
	ET	11	
	Not started to medical treatment / waiting for IVF list	46	
If treatment has been started, what type of treatment are you receiving?	Oral medication	22	KW: 0.170 $p: 0.91$
	Injections	38	
	Not started	36	

Z: Mann-Whitney U test; KW: Kruskal Wallis test, *: significance level as $p < 0.05$ S.D: standard deviation

When the use of CAM methods by women is examined; the rate of participants using any CAM method after the diagnosis of infertility was determined as 60.4%, and it was determined that 53.1% of the participants using CAM methods learned about this method from family members and friends. It was determined that 62.5% of the participants used nutritional supplements as a CAM method, and onion cure (30.2%) was the most used nutritional supplement. The rate of participants who applied directly into the vagina was 20.8%, and it was determined that the most (46.4%) application was rubbing honey to the vagina. In this study, 50% of the participants had been to people with religious

qualifications. The most common recommendations of these people were to make a vow and visit the shrine (25.5%), to wear amulets (23.4%), to drink prayed water or to eat food (23.4%). The rate of participants who made hot application as a CAM method was 40.6%, and it was determined that these participants mostly performed the practice of going to spas (50%). Among the other methods, it was determined that the method of praying and worshiping (74.7%) was preferred most frequently. While 70.8% of the participants thought that CAM methods were not effective, 16.7% stated that they would recommend CAM methods to others (Table-3).

Table 3. Findings on Traditional, Complementary and Alternative Medicine

Features		n	%
Have you used any complementary and alternative medicine (CAM) methods after being diagnosed with infertility?	Yes	58	60.4
	No	38	39.6
If you have used a TAT method, from whom did you hear about it? *	Social media/internet	49	51.0
	Family and friends	51	53.1
	Doctor/Nurse/Midwives	22	22.9
	I created myself	11	11.5
Have you used nutritional supplements as a CAM method?	Yes	60	62.5
	No	36	37.5
If so, which ones did you use?	Virgin Mary grass	11	11.5
	Onion cure	29	30.2
	Walnut cure	13	13.5
	Stinging nettle	8	8.3
	Other	5	5.2
Have you applied directly into the vagina?	Yes	20	20.8
	No	76	79.2
If you have made an application, what are these?	Placing a trout in the vagina	3	3.1
	Rubbing sheep tail oil	3	3.1
	Rubbing honey	13	46.4
	Placing wild daffodils and pansies	3	10.7
	Other	6	21.4
Have you been to people you think have religious qualifications? (Imam, saint, hodja, etc.)	Yes	48	50.0
	No	48	50.0
If so, what practices did these people recommend?	Making / putting on amulets	11	23.4
	Make a vow	12	25.5
	Prayed water/food meal	11	23.4
	Visiting the shrine	12	25.5
	Other	1	2.1
Did you apply hot?	Yes	39	40.6
	No	57	59.4
Which of the hot applications have you done?	Go to hot springs	19	50.0
	Getting into the hot sand	6	15.8
	Sitting on hot ash or brick	9	23.7
	Other	3	7.9
	Nothing	1	2.6
Which of these methods did you use?	Massage	9	10.3
	Exercise	9	10.3
	Acupuncture	3	3.4
	Praying/Worship	65	74.7
	Other	1	1.1
If you have used CAM methods, do you think it works for your fertility treatment?	Yes	28	29.2
	No	68	70.8
Would you recommend CAM methods during fertility treatment?	Yes	16	16.7
	Partially	55	57.3
	No	25	26.0

DISCUSSION

In this study, which was conducted to determine the CAM applications used by infertile women and to evaluate their attitudes towards these applications, it was determined that 60.4% of the participants used any CAM method after the diagnosis of infertility, and their attitudes towards traditional and complementary medicine methods were moderate level. However, it was found that the characteristics of the participants did not significantly affect the CACMAS Scores, except for the duration of treatment. In the literature, the rate of women undergoing fertility treatment to use CAM methods varies between 29-82%^{14,15,23-25} and usage rates vary according to culture, geography and sociodemographic characteristics. Most of the infertile individuals state that they see CAM applications as a hope for them in order to do their best to have a child⁶. In addition, the fact that infertility treatment is a costly and difficult process may cause couples to resort to inexpensive, easily accessible, and easily applied CAM methods²⁶. The fact that most of the participants used a CAM method in this study can be associated with this situation and it can be said that as the duration of treatment increases, women turn to different alternatives to cope with this process, and they look at CAM positively with the hope of doing everything to have a child and achieving a successful pregnancy.

In this study, it was determined that 62.5% of the participants used nutritional supplements as a CAM method, and onion cure (30.2%) was the most used nutritional supplement. When we look at the studies in the literature, it is seen that infertile women frequently use honey and onions from nutritional supplements, similar to this study^{6,11}.

In this study, it was determined that half of the participants applied to people with religious qualifications, and the majority of them did practices such as pray and worship. It is known that praying, especially in case of illness, increases well-being and

calmness, reduces anxiety and increases well-being. For this reason, people can resort to methods such as worship and prayer through their relatives and people with religious qualifications²⁷.

Although most of the participants were using any CAM application, it was determined that most of them thought that these methods were not effective. Women prefer these methods because they believe that they contribute to the usefulness of the treatment, they do the application themselves, they have autonomy in their own treatment, and they provide psychological relief²³. Therefore, as in this study, it can be thought that women apply these methods not only because they are effective in treatment, but also because of their positive effects on well-being.

CONCLUSION

Most of the infertile women use any CAM method and it has been determined that the attitudes of women towards traditional and complementary practices are moderate level. The most preferred CAM methods were determined as onion cure, applying honey to the vagina, praying/worshipping, and going to the spa. It is essential to determine the benefits and harms of CAM methods used in infertility. In this context, it can be recommended to conduct experimental studies with larger samples and examining CAM methods on evidence-based basis.

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