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Complementary, supportive and traditional practice experiences of infertile women in Türkiye: a qualitative study

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Abstract

Background In many societies, infertile couples use traditional practices.

Objective This study aimed to determine the complementary, supportive and traditional (CST) practices used by infertile women and their attitudes toward these practices.

Methods In this qualitative study, data were collected through individual interviews using a semi-structured form in December 2021. A total of 25 infertile women who applied to the in-vitro fertilization center of a hospital in Türkiye participated in the study. The findings were evaluated by thematic analysis.

Results The ages of the participants ranged from 25 to 49 years. Three main themes were obtained by the data analysis; "Reasons for using CST practices," "Complementary, supportive and traditional practices used" and "Opinions on the effect of CST practices."

Conclusion Women resorted to complementary and supportive practices for economic reasons, seeking hope, and environmental pressure. Various herbal cures, dietary practices, and religious methods such as praying and prayer amulets, hacamat (cupping), leeches, and various bodily applications were identified as methods commonly used by women. Women were using these methods with the recommendations of people who are not health professionals. It is important to determine the beneficial methods and increase women's awareness of harmful practices. Additionally, although women use many methods for infertility treatment, it should also be noted that infertility is not a female-only problem. Consequently, childless women should be empowered with healthy coping skills.

Keywords Complementary therapies, Infertility, Qualitative research, Women health

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Introduction

Infertility affects 48 million couples and 186 million people worldwide [1]. Although infertility problems are associated with men and women alike, women are more affected than men. Infertility leads to feelings such as failure, weakness, shame, guilt, blaming and inattention by others, loss, anxiety, hopelessness, and loss of control in women, as well as fear of loneliness, exposure to violence, social stigma, and fear of divorce [2–5].

In addition to the emotional burden of not being able to have children, this can lead to serious economic and social problems for families. The availability, accessibility, and quality of interventions for infertility treatments continue to be a problem in many countries. Due to financial and sociocultural barriers, only a small proportion of couples have access to assisted reproductive technologies [6]. Given the costs of these treatments and their multifaceted impact on the lives of individuals, complementary and supportive practices are commonly seen as an alternative [7]. On the other hand, sense of powerlessness, inadequate care, technical interventions, invasive procedures, and lack of individualized support can lead women to turn to traditional practices [5].

In many societies, various traditional beliefs and practices of different religions and cultures are still frequently used despite advancing technological developments. To have children, infertile women seek help from objects and people they consider auspicious, use herbal cures, and perform various rituals [8]. Hung et al. reported that 96.17% of 8766 infertile women resorted to traditional practices as well as infertility treatment [9]. Another study found that 54 different plants with unknown pharmacological and toxic effects were used by traditional healers in Palestine for the treatment of infertility [10].

It is not known how complementary and traditional practices used by women to have children affect general health, reproductive organs and treatment, and what negative or positive situations may occur [8, 10]. For this reason, it is important to investigate the complementary, supportive and traditional methods used by infertile women and the reasons for using these methods, and increase the awareness of women about harmful practices. It is known that infertile women in Türkiye resort to various herbal treatments and religious practices [11–13]. However, there has not been a study in which qualitative approaches were used to determine the methods used by women in infertility treatment in Türkiye, the reasons for using these methods, and their experiences in detail. A qualitative approach can provide a deeper understanding and rich data on this. This study aimed to determine the complementary, supportive and traditional (CST) practices used by infertile women and their attitudes toward these practices.

Methods

Study design

In this qualitative study, in-depth individual interviews were conducted to obtain in-depth and detailed results about the experiences of infertile women about CST practices.

Setting and participants

The study was conducted with women who applied to the in vitro fertilization (IVF) center of a university hospital in the Black Sea region of Türkiye. Inclusion criteria were determined as being 18 years or older, and being able to communicate in Turkish. The principle of data saturation was taken as the basis for determining the number of participants. The research participated with 25 women.

Data collection

We collected the data through in-depth individual interviews using a semi-structured form in December 2021. We developed the interview guide based on previous studies (Can you tell us about your infertility treatment process? Can you tell us about the CST practices you used that were recommended to you? Why are you using CST practices? What is your opinion on the effects of CST practices? Do you recommend the CST applications you use to other women?) ([Supplementary file](#)).

In-depth individual interviews were conducted face-to-face in a room in the IVF center. All interviews were carried out by two researchers, specialists in the field of gynecology and obstetrics nursing. During the interviews, the participants were observed by the researchers. We recorded all the interviews with a voice recorder. The interviews lasted 25 (20–35) minutes on average. The audio recordings were kept in encrypted computer files.

Data analysis

We followed Braun and Clarke's [14] six-step approach to thematic analysis to analyze the data. The aim of the thematic analysis was to identify themes that revealed participants' experiences of using CST practices. First, we transcribed the audio recordings into text. The researchers listened to the audio recordings and read the written text repeatedly to become familiar with the data. Then, the researchers focused on the participants' statements and coded the data independently. The codes were discussed between the researchers, and a consensus was reached. Next, related codes were grouped into potential themes. Next, we refined the identified themes in the process. At this stage, we discarded themes that were not sufficiently supported. We also returned to the raw data to ensure the themes reflected participant experiences. Then, we identified sub-themes for the comprehensive and intricate themes. In the next stage, we finalized the themes and sub-themes. Through this process, we

Table 1 Characteristics of the participants

Variable		Mean (SD)	Min.-Max.
Age		33.48 (6.58)	25-49
Infertility duration		5.64 (4.89)	2-22
		N	%
Education level	Primary school	7	28.0
	High school	9	36.0
	University	9	36.0
Infertility type	Primary	23	92.0
	Secondary	2	8.0

Table 2 Themes and sub-themes

Themes	Sub-themes
Reasons for using CST practices	Chasing a hope
	Social pressure
	Economic reasons
Complementary, supportive and traditional practices used	Herbal therapies
	Diet therapies
	Prayer
	Cupping and leech application
	Getting prayer amulets, going to shrines
	Waist pulling
Opinions on the effect of CST practices	I believe they are helpful, and I recommend them
	I don't believe in their effect, I don't recommend practices

identified three themes and eleven sub-themes. We followed COREQ guidelines for reporting research findings [15].

Rigour was based on four criteria; credibility, transferability, dependability, and confirmability [16]. In order to improve confirmability, observation notes were kept during the interviews. Interview recordings were listened to again and compared with the transcriptions. To ensure credibility, the researchers evaluated the data independently. In order to ensure transferability, the participants were selected using purposeful sampling. The research process was defined in detail. The findings were presented with rich and powerful quotations from participant statements.

Results

The mean age of the participants was 33.5 (25–49). Of the women, seven were primary school graduates, nine were high school graduates, and nine were university graduates. Of them, two were secondary infertile, and 23 were primary infertile. The average duration of infertility for women was 5.6 (2–22) years (Table 1).

Three themes and eleven sub-themes were identified in line with the participant statements (Table 2).

Reasons for using CST practices

Women stated that they used CST practices because of the cost of infertility treatment, the role of motherhood imposed on women and the pressure to have children,

experiencing stress, the suggestions of the people around them, and their belief that the methods will be effective.

Chasing a hope

Infertile women have used CST practices in hopes of getting pregnant.

I failed to have children for fifteen years. I am very sorry. But I say to myself everything comes from Allah. I console myself. I'm trying all ways. (P5)

The role of motherhood, which is glorified by cultural, social, and religious discourses, is considered one of the most important duties of women. Therefore, being a mother is very important for women. Consequently, they use CST practices as well as treatments.

I want to be a mother so very much. The child is very precious; I love my husband very much. But I want a soul to be from my soul (child). I also try alternative methods to the extent of my possibilities. (P16)

Some women started using CST practices to preserve their ovarian follicle reserve.

I have no choice but to have IVE. At least I am trying some things so my egg reserves aren't depleted. When I hear something from someone, I think maybe it will work. (P11)

Social pressure

Not being a mother is seen as a deficiency for women. Therefore, in the context of cultural and gender roles, the role of motherhood imposed on women creates significant pressure on infertile women. Some women have used CST practices and infertility treatment because their partner wants to have children.

I don't want to get pregnant that much, but it is my second marriage, and my husband wants children. I don't want to have problems in my marriage. I try everything. (P20)

One of the reasons women use CST practices is the pressure on family members to have children.

If you don't have children, they start immediately, do this, do that, be together (have sexual intercourse) on special days. Having to go through this is very exhausting and stressful. Family elders are very impatient. I had to try different things because of social pressure. (P1)

Economic reasons

The cost and unpredictability of the outcome of infertility treatments are among the reasons why women use CST practices.

When we decided to have a baby, we went to the hospital. Everywhere we went, we were faced with costs and fees. It is a difficult process, both financially and spiritually. When you have this problem, you try everything. (P22)

Complementary, supportive and traditional practices used

Complementary, supportive and traditional practices used by women include herbal cures, prayer/religious practices, cupping, leech therapy, and bodily practices. Women learn about these practices from the Internet, television, family members, relatives, other women, khoja or herbalists.

Herbal therapies

All the women participating in the study stated that they heard and applied different herbal practices. The most commonly used herbs included onion juice, agnus castus, snapdragon, and yarrow. These were consumed by women in the form of herbal tea. In addition to these, nettle, mallow, pine rosin, artichoke vinegar, carob, and parsley are among the plants used because they are believed to be useful for infertility.

The herbalist said there was artichoke vinegar, which prepares the uterus for the child. I boil it and drink one teaspoon. (P1)

Some women believed that boiling hibiscus, nettle, and some other herbs in milk and sitting in the steam cleansed the womb.

In a saucepan of milk, I put a little parsley, a little clean straw, sheep bone hibiscus, and a little white soap and bring it to a boil. For three days, on the 13th, 14th and 15th day after my menstruation ended, I sat on the steam of this boiled milk. I learned this from my mother, my sister, and all the women around here who couldn't get pregnant and did this. (P19)

One of the women stated that she used a kind of pine resin (gum mastic) on the advice of her friend.

A friend of mine told me about it. It is something black like chewing gum, you melt it and glue it to the waist with a stretch. You do this while menstruating and remove it when your menstruation ends. I had

it done last month. I had my period early after doing it. It also had a cyst, it probably had an effect on it as well. (P9)

In addition to herbal cures, some vegetable oils are among the methods used.

I heard it on TV. First I made an onion cure, snapdragon, fig and carrot cure. I use lemon oil, orange oil, lavender and coconut oil. I use rock salt. I shower with salt water twice a month. I have 3–4 kilos of rock salt in my bedroom, for clearing the magnetic field. It is very good, relaxing. (P16)

One woman stated that creating a type of mold fungus and drinking the resulting juice helped conceiving.

Brewed tea (herb) is mixed with sugar and left for a week in a closed dark environment and fermented. This waits in the dark for a week and a specific fungus is added. Mold fungus is formed and then you drink its juice. My friend drank this and got pregnant. I tried but it didn't work. (P10)

Diet therapies

Some women (n: 14) consumed foods such as honey, black cumin, yogurt, cinnamon, figs, dates, carrots, avocado, and broccoli because they believed these foods would have an impact on ovulation, sperm count and conception.

Since avocado resembles the uterus, I think it is useful for preparing the uterus for pregnancy and ovulation. I've been eating one avocado and figs every day for six or seven months. The little seeds in figs look like sperm. So people say they are good for sperm quality. It must have benefits. (P4)

Prayer

All of the women stated that they prayed to have children. It is believed among Muslim women that having children is an act of God, and it is a widespread belief that reading some verses (Surah) of the Qur'an is an effective method for having children. Some women (n: 13) stated that they read specific Surahs of the Qur'an or have them read by others to have children. Among the most widely read Surahs of the Qur'an among women is Surah Maryam. In addition, Surah Fatiha, Surah Furqan, Surah Yasin, Surah Fatah, Surah Kahf, Surah Baqarah, Surah Ihlal, Surah Anbiya, Surah Abraham, Surah Falaq, Surah Nas and the Ayat-el Qursi prayers are also recited.

There is the Surah of Maryam and the Prophet Abraham. Abraham has no children. After reciting that Surah, Allah blesses Him. I also recite it with that intention. Everything comes from God, after all, and provides relief. (P17)

I read the Surah of Maryam. Of course, it is necessary to read 300 times. We had a khoja who said that the number of times was important. When it is read the correct number of times, the lock is unlocked. (P22)

Women read Surahs to various foods and drinks and consume them afterward.

You recite Surah Fatiha, Surah Baqarah, Surah Ihlas, Surah Anbiya, Surah Falaq, and Surah Nas 7 times on natural honey and eat it on an empty stomach for three months. My friend did that and got pregnant. So I did it. (P13)

Cupping and leech application

The practice of cupping and leeching, which are thought to be useful for conception, is known (n: 15) and practiced (n: 10) among women. Women have cupping and leeches done by people who traditionally practice these things. Participants stated that cupping was applied to the back and groin area, and leeches were applied vaginally.

I had it done. They put nine cups on my back. On the 13th-14th day of my menstruation, they put five leeches (intravaginal). You have to have sexual intercourse on the same day they put the leeches. Then you have sexual intercourse every other day. I didn't get pregnant after doing this, but it helped my back pain. (P23)

Women believe that the practice of cupping and leeching cleanses the uterus.

They put the cups on my back and on my waist on sunnah days. When it was done, they put seven leeches in my vagina. I had this done to clean and regenerate my uterus. (P15)

Getting prayer amulets, going to shrines

Believing in supernatural beings called 'sübyan,' having prayer amulets made, and going to shrines are among the faith-based practices used by women to have children. Some women believe that when they conceive, supernatural beings called sübyan (jinn) cause them to abortus

and babies to die, so they get prayer amulets to keep these beings away.

So far, I had three amulets made. I carry them on me. I got two of them made to get pregnant. My sister didn't do it, and her baby died three days after it was born. They say sübyan killed the baby. I believe that. (P2)

Going to shrines and praying are among the common practices to become pregnant.

When we visit shrines and pray for the souls of people loved by god, I think they will be intercessors for us, and we will benefit spiritually. (P11)

Waist pulling

Waist pulling is practiced among women to get pregnant. Women go to well-known and recommended healers for doing this traditional practice.

A woman who did this rubbed my stomach with hot water. Then she pulled my belly up with all her might. We thought I would get pregnant that month. But it didn't. (P2)

Opinions on the effect of CST practices

Some participants believed in the benefits of the methods they used, while others stated that they practiced the methods but did not see any help.

I believe they are helpful, and I recommend them

Most women (n: 15) believed that the methods they used were beneficial even if they did not become pregnant and would recommend these methods.

I had cupping done to my groin. Since it is the sunnah of the Prophet, I think it is useful. (P11)

I don't believe in their effect, I don't recommend

Some women think that the methods they use are ineffective and do not recommend them. One of the participants recommended praying but not the other practices.

I recommend that those who want to get pregnant should pray. But I regret the other things I did like waist pulling and getting amulets. (P22)

Another participant stated that to get pregnant, it is necessary to avoid stress and love yourself.

I think those who want to have children should have peace of mind in a quiet place away from the crowds. Maybe I'd have a child. But I had a lot of stress. I applied these methods (complementary/supportive) because of social pressure. I regret it. The best method is to take care of yourself and to love yourself. (P1)

Discussion

The results of our research provide detailed information on why infertile women use CST practices and the practices they use and contribute to the literature.

Infertility has emotional, social, and economic effects on the lives of women [5]. Fertility is culturally and socially important in Türkiye. Infertile women can be stigmatized and subjected to violence [17, 18]. Studies in different countries have also demonstrated similar results [5, 19, 20]. For this reason, infertile women seek remedies. Consistent with the literature, our study showed that the reasons why infertile women use CST practices include the high cost of infertility treatments, social pressure, and the belief that these methods are beneficial [21, 22]. However, it should also be accepted that infertility is not a female-only problem and may be male-caused [21]. For this reason, males also try to increase their fertility [10]. Nevertheless, some women bear the burden of infertility even when they know there is a male cause. Consequently, women feel inadequate, frustrated, and guilty about infertility, regardless of the reason for not having children [17]. This contributes to women's use of CST. Therefore, women should be empowered with healthy coping skills and raised awareness.

Low cost, accessibility, fewer side effects, and the absence of invasive interventions are why herbal therapy is widely used in infertility [13]. Cultural differences may play a role in the diversity of herbal products and could be quite different worldwide. A study in Australia reported that the herbal products used by infertile individuals included chamomile, echinacea, mint, agnus-castus, ginseng, and armoracia [23]. In the West Bank region of Palestine, the most common herbal products used by women in the treatment of infertility were carob, pollen grains, milk thistle fruits, and basil leaves [10]. In Sierra Leone, the most common herbs used by women were luffa [24]. In Türkiye, herbal products are commonly used in infertility [12, 25]. The present study found that women widely used herbal products such as onion juice, agnus-castus, snapdragon and yarrow, nettle and mal-low, parsley, black cumin, and carob. Other studies also reported similar results [11–13]. These results reflect the interest of infertile women in herbal approaches. However, most plants are unknown for their pharmacological or toxicological nature. Additionally, although it is

believed to be safe among women, the scientific evidence for the effectiveness of these products is inconclusive, and they may have adverse effects on fertility [10, 24, 26]. Moreover, women are reluctant to report the use of these products to healthcare professionals [25]. This may further increase potential risks. Health professionals need to pay attention to infertile women's use of herbal products. Also, the effects of these herbal products on fertility should be investigated.

Spirituality, which includes positive restructuring and making sense of their experiences, is the method women often resort to in coping with infertility stress [27]. In coping with infertility, many people think that infertility is a divine will and believe that they will have a child if God wants it. Therefore, one of the most common methods to treat infertility is praying to God [28, 29]. According to Roudsari et al. both Muslim and Christian women receive support from their religious beliefs and benefit from religious rituals for infertility [30]. It was reported that older women in Niger used to sacrifice to a deity called Benekurukuru [31]. Many infertile women in Pakistan used methods of praying and recitation of the Qur'an [32]. Similarly, Iranian women frequently used methods such as trusting in god and praying [33]. Religious practices performed by women are usually carried out under the leadership of a clergyman. In the present study, participants reported reading special prayers and verses of the Qur'an and getting amulets made to treat infertility. These results are similar to other studies [11, 22]. The widespread use of spiritual practices among infertile Turkish women may be because they are based on a cultural and religious background, are safe, harmless, cost-free, more accessible than medical treatment, and provide relief to the individual. These practices may contribute to reducing stress in women. Women may use spirituality as a way to cope with infertility [27, 30, 32].

In addition to these methods, infertile women resort to cupping and leech applications as traditional methods [12, 22, 34]. Studies conducted in Türkiye, Palestine, Saudi Arabia, and Jordan show that these methods were widely used. However, their effect on pregnancy success is unclear [22, 34–36]. Abduljabbar et al. and Alshawish et al. reported that cupping may be effective in female infertility [35, 36]. However, more research is needed. In the present study, it was found that the participants tried cupping and leech applications and that they had traditional practitioner women do these practices. Many of these nonmedical interventions have existed for generations and are used for infertility treatment as well as for other illnesses [34, 35]. However, these applications may support treatment as long as experts practice it. In Türkiye, it is forbidden to perform cupping and leech applications outside the units licensed by the Ministry of Health [37]. However, there are still unlicensed

practitioners, and infertile women consult these practitioners. The use of these methods, whose effects are unknown and may even have potential harm, among infertile women is worrisome because the uncontrolled use of non-evidence-based methods may cause adverse effects. It can even be life-threatening [38]. Therefore, healthcare providers need to be aware of the increasing unsupervised use of these methods among infertile women. Women also need to be informed about the risks of these practices performed by unlicensed practitioners. In addition, this unsupervised use requires an immediate response plan.

Our study, it was observed that the practices performed by traditional healers were more frequent than previously thought. Most women performed procedures such as sitting on the steam of various plants, drinking herbal teas, having a belly massage, and waist pulling. Similar to the practice of waist pulling mentioned in our study, Hollos et al. found that Nigerian women had their uterus massaged by going to traditional healers who claimed to improve fertility [31]. Uterine practices are generally performed by older women and are far from the scientific framework. It is still unclear how practices in the form of indirect or direct intervention to the uterus mentioned in the present study affect medical treatment processes. It is also not known how general health and reproductive organs will be affected by these methods, especially intra-uterine applications, steam applications, and consumption of teas and pastes obtained from various plants [11]. For this reason, women should be informed about this.

Consequently, many methods used by women have not been investigated, and outcomes are unknown. Additionally, there is insufficient evidence for the effects of some CST methods examined, and their outcomes are unclear [26, 36, 39, 40]. Moreover, considering that many of these practices (cupping, leech, waist pulling, some toxic cures, etc.) are recommended and performed by unlicensed and uneducated practitioners, there is no doubt that they threaten women's health. This is clearly against the principle of beneficence and nonmaleficence. Moreover, the consequences of these practices are also worrisome. Because the time women spend waiting for the effects of these methods may delay seeking medical care, or adverse effects may reduce the success of fertility treatment. The reduction in fertility with increasing female age is known. Therefore, time spent on ineffective therapies may reduce the chances of pregnancy. Lower chances of pregnancy may further deepen the psychosocial burden faced by women. Therefore, healthcare professionals should ask couples seeking infertility treatment about their use of CST, act without prejudice, and provide scientific support. Additionally, couples should be made aware of CST practices that have the potential to harm women's health.

Limitations

Only infertile women were interviewed in the present study. Partners were not included. In addition, this research was carried out in a single center. The practices used by women living in different regions and rural areas may vary. Therefore, the results cannot be generalized to all women. Future research should investigate traditional practices used by infertile women in larger populations and different regions. Additionally, the effects of alternative and traditional practices women use on their health can be investigated.

Conclusion

In our study, the reasons why infertile women use CST practices were determined as social pressure, seeking hope, and economic reasons. Motherhood is one of the important roles of women in many countries, including Türkiye. Women who are not capable of performing this role are blamed and stigmatized. This is one of the main reasons why childless women seek treatment and try many alternative methods. Although infertility is not a female-only problem, it is clear that the emotional burden of infertility, the treatment process, and the CST methods used have a higher impact on the female body and health. We found that women tried many CST practices and learned these practices from non-health professionals such as *khojas*, herbalists, friends, or online information. Therefore, healthcare professionals should question the CST practices used by infertile women and inform women about these practices. A response plan should also be developed to prevent unsupervised use of some traditional practices. On the other hand, although CST methods are common, they will continue to be controversial unless they are scientifically evidence. In cases where CST methods are scientifically plausible, further research should be conducted to reveal the methods' effects on fertility.

Abbreviations

CST	Complementary, supportive and traditional
COREQ	Consolidated criteria for reporting qualitative research
P	Participants
IVF	In vitro fertilization

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12906-024-04604-0>.

Supplementary Material 1

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Author contributions

EKE, participated in the design of the study, preparation of the questionnaire, acquisition, analysis, and interpretation of data, discussed and evaluated the results, participated in writing the manuscript and revised it; SB, participated

in the preparation of the questionnaire, acquisition, and analysis of data, and participated in writing the manuscript; EK, participated in the analysis and interpretation of data. All authors read and approved the final manuscript.

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Data availability

The datasets generated and/or analyzed during the current study are not publicly available due to The interviewees discussing identifying details in their open-ended responses, and the process of de-identification would be difficult and complicated but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Ondokuz Mayıs University Social Sciences and Humanities Research Ethics Committee (Date: 26 November 2021, Decision no: 2021 – 907). Before the interviews, the participants were informed about the purpose of the research, volunteerism, and sound recording. Written informed consent was obtained from all participants. Participants anonymized.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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