

Traditional Methods Known and Practiced by Infertile Women for Infertility: A Descriptive Study*

İnfertil Kadınların İnfertiliteye Yönelik Bildikleri ve Uyguladıkları Geleneksel Yöntemler:

Tanımlayıcı Çalışma

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ABSTRACT

Aim: This study aims to determine the traditional methods known and practiced by infertile women for infertility.

Desing: This study was designed as descriptive and cross-sectional type.

Materials and method: The study sample consisted of 153 infertile women who visited the in vitro fertilization (IVF) center of a public hospital. The data were collected using a questionnaire to determine the infertile women's socio-demographic characteristics, duration of infertility, medical treatment for infertility, family support, feelings about having children in the future, and the traditional methods they knew and used for infertility.

Results: Among the traditional methods they knew and utilized for infertility, almost all the infertile women reported praying, 52.9% reported drinking herbal remedies, nearly half of them reported drinking onion juice and consuming fig puree, and 46.4% reported drinking carob juice. Considering the relationship between the duration of infertility and traditional practices known by infertile women regarding infertility, there was a significant difference between longer periods of infertility and the status of knowing traditional practices such as drinking onion juice, visiting holy tombs, consulting a hodja/Muslim preacher, going to thermal springs, and using heat plaster on the back ($p<0.05$).

Conclusion: The fact that infertile women knew and used at least one traditional method for infertility in our study shows that their fertility is at risk. In this regard, nurses need to take careful patient histories at every stage of treatment, provide psychological and social support during the long and difficult treatment process, and offer counseling services. Furthermore, comprehensive studies are needed to examine the effects of traditional methods used in infertility treatment.

Key words: Traditional practices, Infertility, Nursing, Culture

ÖZET

Amaç: Bu araştırmanın amacı infertil kadınların infertiliteye yönelik bildikleri ve uyguladıkları geleneksel uygulamaları belirlemektir.

Araştırma Tipi: Bu araştırma tanımlayıcı ve kesitsel tipte tasarlanmıştır.

Gereç ve Yöntemler: Araştırmanın örneklemini, bir kamu hastanesinin tüp bebek merkezine başvuran 153 infertil kadın oluşturmuştur. Araştırmanın verileri, infertil kadınların ve eşlerinin sosyo-demografik özelliklerini, infertilite süreleri, infertiliteye yönelik tıbbi tedavi alma durumlarını, aile desteğini, gelecekte çocuk sahibi olmaya yönelik duyguları ve "İnfertiliteye yönelik bildikleri ve uyguladıkları geleneksel yöntemleri" belirlemeye yönelik sorulardan oluşan anket formu aracılığı ile toplanmıştır.

Bulgular: Araştırmaya dahil olan kadınların tamamına yakınının dua etme, %52,9'unun şifalı bitki suları içme, yarısına yakınının soğan suyu ve incir kuru içme, %46,4'ü de keçiboynuzu suyu içme yöntemlerini uyguladıkları belirlenmiştir. İnfertil kadınların infertiliteye yönelik bildikleri geleneksel uygulamaların infertilite süreleri ile ilişkisinin dağılımı incelendiğinde, soğan suyu içme, türbeye gitme, hocaya gitme, kaplıcaya gitme, sırtta yakı yakma gibi geleneksel uygulamaları bilme durumları ile infertilite süreleri arasında anlamlı ilişki olduğu ($p<0,05$) ve bu yöntemleri bilen kadınların çocuk sahibi olmadıkları sürelerin daha yüksek olduğu belirlenmiştir.

Sonuç: Araştırmamızda kadınların en az bir yöntemi biliyor ve uyguluyor olması doğurganlıklarının risk altında olduklarını göstermektedir. Bu doğrultuda hemşirelerin tedavinin her aşamasında dikkatli bir öykü alması, uzun ve zor bir süreç olan tedavi aşamasında ruhsal ve sosyal destek sağlaması ve danışmanlık hizmeti vermesi gerekmektedir. Ayrıca kullanılan geleneksel yöntemlerin etkilerinin incelendiği kapsamlı çalışmalara ihtiyaç duyulmaktadır.

Anahtar Kelime: Geleneksel Uygulamalar, İnfertilite, Hemşirelik, Kültür

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Introduction

Infertility is defined as the inability of couples who desire to have children to conceive or maintain a pregnancy for at least one year of regular sexual intercourse (at least two or three times a week) without using any contraception methods.¹⁻⁴ Infertility is also referred to as a life crisis because it is an individual-specific condition and has uncertain outcomes with cultural, religious, and class aspects, causing several medical, psychiatric, psychological, social, and sexual problems.⁵⁻⁸ About 10-15% of reproductive-age couples worldwide experience infertility issues and more than 80 million people are affected by infertility.^{4,9} In Turkey, 11.2% of married women aged 15-49 years have never had children or cannot have children.¹⁰ In societies where femininity is equated with motherhood and masculinity is equated with fertility, infertility is an unexpected experience that can negatively affect the mental health and quality of life of couples, causing depression, anxiety, decreased sexual desire, and deterioration in marital relations.^{7,11,12}

The diagnosis and treatment of infertility, which is a costly, difficult, and long process, causes couples to resort to traditional practices due to their fear of not being able to have children as the duration of infertility increases. In every society, traditional practices based on inherited knowledge and experience are included in the verbal transmission and treatment of diseases.¹³ Studies have determined that women first refer to health institutions to have children, but later start using traditional practices.¹⁴⁻¹⁶ Despite many advances in infertility treatment, traditional methods are still being used in Turkey and other countries across the world.^{6,10,16-22} In Turkey, which has a socially and culturally heterogeneous structure, it has been determined that some interesting traditional practices are carried out for infertility, such as consuming herbal remedies, sitting in hot milk steam, inserting foreign objects such as fig seeds, pine cones, onions, or animal hair into the vagina, drinking parsley juice, and having cupping-glass therapy on the back.^{14-16,18}

Traditional practices for becoming pregnant can negatively affect women's health and make their medical treatment impossible.^{4,15,16} Therefore, it is necessary to know individuals' understanding and beliefs about this issue to maintain and improve their health. This is important in terms of supporting beneficial practices, involving individuals in care, and preventing the negative effects of harmful practices. Nurses in infertility clinics and in vitro fertilization (IVF) centers can contribute positively to the protection and development of women's health by adopting a holistic approach, understanding couples' individual characteristics, traditional beliefs, and practices, correcting those that may negatively affect health and reinforcing positive ones, and improving the quality of health services. In this context, this study aimed to determine the traditional practices known and used by infertile women for infertility.

Materials and methods

Setting and sample

A descriptive and cross-sectional study was done between December 2021 and May 2022 at the Department of IVF center of a public hospital. The study was conducted from December 2021 to May 2022 in Mersin, a metropolis in the southeastern part of Turkey with a population of nearly 1,5 million. Approximately 70 couples apply monthly to the center where infertile couples apply to have children. G*Power 3.1.9.7 trial version was used to calculate the sample. it was determined that a minimum sample size of 145 was necessary to achieve statistical significance with a minimum 80% power and a maximum 5% type I error margin. The inclusion criteria were as follows: being diagnosed with infertility, agreeing to participate in the study, women aged 18 years or older and being able to speak and understand Turkish. Thus, a total of 153 women were included in the study.

Measurements

We used a questionnaire form to collect data. Questionnaire forms use the literature and include forms of expert opinion.^{15,16,19,20} The questionnaire consists of 30 questions to determine the sociodemographic characteristics of women, their infertility stories and their traditional practices regarding infertility. We carried out a pilot study with 15 women who visited the IVF center to assess the comprehensibility and usability of the questionnaire. The average time required of women surveyed to complete the questionnaire was 15-20 min.

Data analysis

Data evaluation was made using www.e-picos.com (New York) software and MedCalc statistics package program. Data analysis was made via mean and standard deviation, minimum and maximum values of the characteristics for the continuous values in the scales; frequency and percentage values was used for categorical variables. Student's t-test was used to compare the mean scores of two groups. Mann-Whitney U was used as a nonparametric test for values within below 30. Number, percentage, and mean and standard deviation values were presented as descriptive statistics. A p-value of <0.05 was accepted for the significance level of the tests.

Ethical considerations

All procedures were approved by Mersin University Social Sciences Institutional Ethics Review Board (Decision No: 2017/51). All participants were informed according to the principles of the Declaration of Helsinki and their written informed consent was obtained. Participants were informed of all study procedures and that the data collected during the study would be de-identified.

Results

Sample characteristics

Table 1. Characteristics of infertile women (n=153)

Characteristic	n	%
Age		
19-29 years	71	46.4
30-40 years	72	47.0
41 years and above	10	6.6
Education Level		
Literate	21	13.7
Primary school graduate	69	45.1
High school/university graduate	63	41.2
Employment Status		
Employed	48	31.4
Unemployed	105	68.6
Spouse's Education Level		
Literate	6	3.9
Primary school graduate	76	49.7
High school/university graduate	71	46.4
Spouse's Employment Status		
Employed	144	5.9
Unemployed	9	94.1
infertility duration		
1-3 years	70	45.7
4-6 years	50	32.7
7 years and over	33	21.6
Feelings for the Future		
Hope	99	64.7
Despair	19	12.4
Fear	35	22.9

Almost half of the infertile women (47.0%) were between the ages of 30 and 40 years, with a mean age of 30.13±6.55 years. Of the women, 45.1% were primary school graduates, 68.6% were unemployed, It was found that 45.7% of infertile individuals had an infertility duration of 1-3 years, It was determined that 72% had social support from their families and 64.7% were hopeful for the future (**Table 1**).

Traditional Practices Known and Practiced by Infertile Women for Infertility

Table 2. Distribution of traditional practices known and practiced by infertile women for infertility (n=153)

Practice	Status of Knowing				Status of Practicing			
	Yes		No		Yes		No	
	n	%	n	%	n	%	n	%
Praying	153	100.0	0	0.0	142	92.8	11	7.2
Drinking Herbal Remedies	132	86.3	21	13.7	81	52.9	72	47.1
Drinking Onion Juice	129	84.3	24	15.7	73	47.7	80	52.3
Consuming Fig Puree	124	81.0	29	19.0	73	47.7	80	52.3
Drinking Carob Juice	118	77.1	35	22.9	71	46.4	82	53.6
Visiting Holy Tombs	85	55.6	68	44.4	34	22.2	119	77.8
Sitting in Parsley Juice Steam	81	52.9	72	47.1	42	27.5	111	72.5
Consulting a Hodja/Muslim Preacher	76	49.7	77	50.3	20	13.1	133	86.9
Sitting in Hot Milk Steam	66	43.1	87	56.9	25	16.3	128	83.7
Having Waist Massage	65	42.5	88	57.5	25	16.3	128	83.7
Going to Thermal Springs	49	32.0	104	68.0	15	9.8	138	90.2
Placing Herbs in the Uterine Cervix	48	31.4	105	68.6	8	5.2	145	94.8
Having Cupping-Glass	41	26.8	112	73.2	15	9.8	138	90.2
Using Heat Plaster on the Back	28	18.3	125	81.7	10	6.5	143	93.5
Sitting in Raki Steam	14	9.2	139	90.8	2	1.3	151	98.7
Sitting on the Placenta	6	3.9	147	96.1	0	0.0	153	100.0

Among the traditional methods they knew for infertility, all the infertile women (100%) reported praying, 86.3% drinking herbal remedies, 84.3% drinking onion juice, 81% consuming fig puree, 77.1% drinking carob juice, 55.6% visiting holy tombs, 52.9% sitting in parsley juice steam, 49.7% consulting a hodja/Muslim preacher, 43.1% sitting in hot milk steam, and 42.5% having waist massage. In addition, among the traditional methods they utilized for infertility, almost all the infertile women (92.8%) reported praying, 52.9% reported drinking herbal remedies, nearly half (47.7%) reported drinking onion juice and consuming fig puree, and 46.4% reported drinking carob juice (**Table 2**).

Relationship between the Duration of Infertility and Traditional Practices Known by Infertile Women for Infertility

Table 3. Relationship between the duration of infertility and traditional practices known by infertile women for infertility

Traditional Practice	n	Duration of Infertility Mean/Median [IQR]	Statistical value
Drinking Onion Juice			
Yes	129	3.88±3.21 /3.00 [3.00]	p=0.001/<0.001*
No	24	1.66±1.43/1.00 [1.00]	
Visiting Holy Tombs			
Yes	85	4.37±3.41/3.50 [3.50]	p<0.001**
No	68	2.48±2.30/2.00 [2.00]	
Consulting a Hodja/Muslim Preacher			
Yes	76	4.67±3.75/4.00 [4.00]	p<0.001**
No	77	2.41±1.67/2.00 [2.00]	
Going to Thermal Springs			
Yes	49	4.82±3.61/4.00 [4.50]	p=0.001**
No	104	2.92±2.64/2.00 [3.00]	

Using Heat Plaster on the Back			
Yes	28	5.46±4.24/4.00 [5.75]	p<0.001/=0.001*
No	125	3.10±2.62/2.00 [3.00]	

*Mann-Whitney U was used among nonparametric tests.**Student t test

In addition, there was no statistically significant relationship between the socio-demographic characteristics and traditional practices known and practiced by infertile women for infertility (p>0.05). Considering the relationship between the duration of infertility and traditional practices known by infertile women regarding infertility, there was a significant difference between their duration of infertility and status of knowing traditional practices such as drinking onion juice, visiting holy tombs, consulting a hodja/Muslim preacher, going to thermal springs, and using heat plaster on the back (p<0.05); and the women who knew these methods had longer periods of infertility (**Table 3**).

Relationship between the Duration of Infertility and Traditional Practices Employed by Infertile Women for Infertility

Table 4. Relationship between the duration of infertility and traditional practices employed by infertile women for infertility

Traditional Practice	n	Duration of Infertility Mean/Median [IQR]	Statistical value
Drinking Onion Juice			
Yes	73	4.05±3.14/3.00 [3.00]	p=0.048 **
No	80	3.06±3.02/2.00 [3.00]	
Visiting Holy Tombs			
Yes	34	4.98±3.51/4.00 [3.00]	p=0.002 **
No	119	3.12±2.86/2.00 [3.00]	
Sitting in Parsley Juice Steam			
Yes	70	4.54±3.54/4.00 [4.00]	p=0.013 **
No	83	3.15±2.85/2.00 [3.00]	
Consulting a Hodja/Muslim Preacher			
Yes	20	5.47±4.33/4.50 [5.25]	p=0.003*
No	133	3.24±2.78/2.00 [3.00]	
Sitting in Hot Milk Steam			
Yes	25	5.16±4.23/4.00 [6.00]	p=0.004/0.010*
No	128	3.21±2.78/2.00 [3.00]	
Going to Thermal Springs			
Yes	15	5.03±2.85/4.00 [5.00]	p=0.049/0.008*
No	138	3.37±3.10/2.00 [3.00]	
Having Cupping-Glass			
Yes	15	4.78±4.10/5.00 [6.00]	p=0.002 /0,035*
No	138	3.08±2.52/2.00 [3.00]	
Using Heat Plaster on the Back			
Yes	10	7.90±5.21/8.50 [5.50]	p=0.000/0.001*
No	143	3.23±2.68/2.00 [3.00]	
Sitting in Raki Steam			
Yes	2	8.00±2.82/8.00 [-]	p=0.041/0.034*
No	151	3.47±3.07/2.00 [19.00]	

*Mann-Whitney U was used among nonparametric tests.**Student t test

Considering the relationship between the duration of infertility and traditional practices used by infertile women for infertility, there was a statistically significant difference between their duration of infertility and status of using traditional practices such as drinking onion juice, visiting holy tombs, consulting a hodja/Muslim preacher, sitting in hot milk steam, going to thermal springs, sitting in raki steam, sitting in parsley juice steam, and using heat plaster on the back (p<0.05); and the women who applied these practices had longer periods of infertility (**Table 4**).

Discussion

This study determined that all infertile women knew at least one of the 16 traditional methods assessed here and applied at least one of them except for sitting on the placenta. Engin and Pasinlioğlu found that 100 % of Turkish women knew traditional methods for infertility and 71% applied these methods.¹⁴ Çetinkaya and Eroğlu reported that 85% of Turkish women knew traditional methods for infertility and 9.3% applied them.⁶ Nazik et al., Ayaz and Yaman, Taner and Güneri found the percentages of women applying traditional methods as 83% and 27.3%, respectively.^{23,24,25} It was determined that all of the women included in the study of Bıçakçı and Türk had at least one of the traditional practices.¹⁸ Although the results obtained from the studies conducted in Turkey are different from those in our study, our results indicate an increase in the knowledge and practices of traditional methods for infertility among infertile women. In this respect, it is an important result that all infertile women in our study knew and applied at least one traditional method for infertility.

McGee et al. found that 91.1% of women in a subpopulation of the United States used non-medical treatment methods to get pregnant.²⁶ Schaffir et al. determined that 62.2% of infertile patients in China used complementary therapy methods.²⁷ Considering these studies conducted in different countries, women use non-medical methods, similar to those in our study. However, the rate of using these methods was higher in our study.

In our study, the traditional methods most commonly used by infertile women were praying and drinking herbal remedies. Similar to our results, religious and herbal methods were the most used methods by infertile women in several studies conducted in Turkey.^{6,23,24,28} In most of the studies conducted abroad, women reported using religious or herbal methods to get pregnant.^{25,27,29-31}

Edirne et al. found the percentages of visiting holy tombs and consulting a hodja/Muslim preacher for infertility treatment were 30.6% and 27.0%, respectively.²⁸ Günay et al. determined the percentage of consulting a hodja/Muslim preacher for infertility treatment was 46.3%.³² Our study found the percentages of visiting holy tombs and consulting a hodja/Muslim preacher for infertility treatment were 22.2% and 13.1%, respectively. The difference between these results may be due to cultural differences.

A study conducted in South Africa found that 14 plant species were beneficial in the treatment of infertility. Another study conducted in the southwestern region of Nigeria determined that 75 plant species from 41 families were beneficial in the treatment of infertility.^{31,33} However, studies about the beneficial and harmful effects of herbs in the treatment of infertility are still insufficient. In our study, the infertile women reported consuming different plant juices such as onion, fig and carob juice for infertility treatments. In addition, they also reported sitting in parsley juice steam and placing herbs in the uterine cervix. The fact that infertile women use diverse traditional practices for infertility using plant species with unknown benefits and harms suggests that their fertility is at risk.

Our study determined that different foodstuffs other than herbal products were also used by infertile women. For example, 16.3% of them reported sitting in hot milk steam and 1.3% reported sitting in raki steam. Therefore, it is of great importance to examine the effects of these traditional methods on infertility and to inform women about this issue as these methods are not addressed in the literature.

Several studies have found that socio-demographic characteristics such as age, education level, place of residence, and economic status are associated with the use of traditional methods in infertility.^{25,29,33-35} McGee et al., similar to our study, found no significant relationship between socio-demographic characteristics and the use of traditional methods for infertility.²⁶ This may be because women in our study knew and applied at least one traditional method for infertility.

Our study found a statistically significant relationship between a longer duration of infertility and knowing and using traditional practices regarding infertility. Similar to our results, Ayaz & Yaman and Günay et al. found a relationship between the duration of the marriage and the application of traditional practices for infertility.^{25,32} This situation reveals that women experience desperation and resort to different and perhaps harmful methods for infertility as the time they cannot have children increases. This also shows that a good counseling service for infertile women is needed from the beginning to the end of their infertility treatment.

Conclusion

Today, infertility negatively affects many couples, especially women. A long and sometimes unsuccessful infertility treatment causes women to seek different solutions and perhaps apply harmful methods. Therefore, as nurses have high interaction and communication with women during their treatment, their medical history-taking, support, and counseling roles gain great importance for informing women about infertility. Both geographical and social characteristics of women affect the types of their traditional infertility treatment practices. Treatment with magic is common in societies with active religious practices and beliefs, surgical treatment in warrior societies, and treatment with medicinal plants in agricultural societies. Anatolia has hosted diverse societies where most of these infertility treatment methods are used. These traditional methods, which have been passed down or become legends from ancient times to the present, appeal to infertile women as different solutions for infertility. However, these methods, whose effects on infertility have not been examined and are unknown, may cause more harm to their fertility.

The fact that infertile women knew and used at least one traditional method for infertility in our study shows that their fertility is at risk. In this regard, nurses need to take careful patient medical histories at every stage of treatment, provide psychological and social support during the long and difficult treatment process, and offer counseling services. Furthermore, comprehensive studies are needed to examine the effects of traditional methods used in infertility treatment.

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Ethical Approval

Study permissions were obtained from the Mersin University Social Sciences Institutional Ethics Review Board (Date: 24/08/2017, No: 2017/51).

Author Contributions

Tuba Güner Emül: Idea, design, control/supervision, data collection and processing, analysis and comment, literature search, article writing, criticism

Filiz Değirmenci: Design, control/supervision, data collection and processing, criticism

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