

ORIGINAL RESEARCH ARTICLE

Exploring women's voices in infertility care in Turkey: A qualitative study of treatment experiences

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Abstract

This qualitative descriptive study explored the physical, emotional, psychological, and social experiences of women undergoing infertility treatment in Turkey. Semi-structured online interviews were conducted with 21 women who had received infertility treatment within the previous year. Data were analysed using inductive thematic analysis. Six main themes were identified: healthcare professionals' approach, treatment environment, treatment-related challenges, medication issues, treatment outcomes, and overall experiences. Participants reported a lack of information, financial burdens, physical and psychological side effects of medications, health concerns, and disappointment after treatment failure. Conversely, positive experiences and hopeful outcomes strengthened psychological resilience, while spousal and social support were of critical importance. The findings demonstrate that infertility treatment is not only a medical procedure but also a multidimensional life experience, underlining the need for healthcare professionals to adopt a sensitive and holistic approach. (*Afr J Reprod Health* 2026; 30 [16]: 54-70).

Keywords: Qualitative research; in vitro fertilization; women's health; infertility; treatment experiences

Résumé

Cette étude qualitative descriptive a exploré les expériences physiques, émotionnelles, psychologiques et sociales des femmes ayant suivi un traitement d'infertilité en Turquie. Des entretiens semi-structurés en ligne ont été menés auprès de 21 femmes ayant reçu un traitement au cours de l'année précédente. Les données ont été analysées par analyse thématique inductive. Six thèmes principaux ont émergé : l'approche des professionnels de santé, l'environnement de soins, les difficultés liées au traitement, les effets des médicaments, les résultats du traitement et l'expérience globale. Les participantes ont rapporté un manque d'information, des contraintes financières, des effets secondaires physiques et psychologiques, des inquiétudes pour leur santé et la déception en cas d'échec. Les expériences positives et les perspectives encourageantes ont renforcé la résilience psychologique, tandis que le soutien conjugal et social s'est avéré crucial. Les résultats démontrent que le traitement de l'infertilité est une expérience de vie multidimensionnelle, nécessitant une approche sensible et holistique. (*Afr J Reprod Health* 2026; 30 [16]: 54-70).

Mots-clés: Recherche qualitative; fécondation in vitro; santé des femmes; infertilité; expériences de traitement

Introduction

Infertility treatment is a journey filled with hope but also accompanied by significant psychological and social burdens for couples wishing to have children. Medical procedures such as ovulation induction, oocyte retrieval, embryo transfer, and progesterone support substantially affect couples' daily lives.^{1,2} Treatment failure increases depression and anxiety levels among couples, leading to decreased self-esteem and deterioration in marital relationships.³ The way women experience infertility treatment can vary depending on several factors, including the

number of treatment cycles, the duration of treatment, and the outcome. The treatment process is often reported to involve challenges such as physical and emotional pain, disruption of daily routines, and the pressure of wanting to have a child.⁴ Particularly in Asian countries, women tend to experience greater stress during the infertility process owing to the widespread societal prejudice that infertility is primarily a woman's issue.⁵

Studies conducted in Turkey have similarly demonstrated that the emotions and thoughts of infertile women influence both the treatment process and its outcomes.^{6,7} Ensuring women's

physical, psychological, and social well-being throughout infertility treatment is crucial, not only for the success of the treatment but also for their overall health and quality of life. In this context, healthcare professionals must adopt a sensitive and holistic approach to the experiences of women facing infertility. Research emphasises that couples manage the process more effectively when supported by positive relationships; however, individuals often hesitate to seek social support and report insufficient psychological support from healthcare professionals.⁴

For most couples, infertility treatment is not merely a medical intervention but a complex process accompanied by intense emotions, stress, and psychological uncertainty.^{6,8} In cases of treatment failure, some women retrospectively recall the process with regret, expressing feelings of having missed career or life opportunities.³ Although the literature is rich in studies focusing on the negative outcomes of infertility treatment, few studies have explored the experiences of those who have undergone successful treatment. Therefore, this study aims to examine in depth the experiences of women who have undergone infertility treatment.

Methods

Study design

This study was designed as a qualitative descriptive study to explore women's experiences of the infertility treatment process. The data were analysed using the six-phase approach to thematic analysis. Thematic analysis is an approach that allows for the systematic coding of participants' statements and the organisation of these codes into categories, subthemes and themes. It goes beyond the mere description of phenomena, making it possible to identify and interpret common patterns of meaning across participants' experiences.⁹

Study setting and context

The study was conducted in Turkey, a country where infertility treatment is widely available through both public and private healthcare

facilities. Motherhood is highly valued in Turkish society, and women experiencing infertility frequently face strong familial and societal pressure to conceive. These contextual features shaped the recruitment, the women's lived experiences, and the interpretation of the findings.

Study population and sample

The population consisted of women who had undergone infertility treatment within the past year in Turkey and were recruited from different geographical regions of the country, including the Marmara, Central Anatolia, Black Sea, Aegean, and Eastern Anatolia regions. Women aged 18 years or older who had received at least one infertility treatment cycle (ovulation induction, intrauterine insemination, or in vitro fertilization) within the previous 12 months, who were able to communicate in Turkish, and who consented to participate were eligible.

Women who were unable to complete an online interview owing to technical limitations were excluded. Participants were recruited using snowball sampling, applying the eligibility criteria described above, interviews were conducted with women who had received infertility treatment. Qualitative research relies on a sampling strategy in which data collection continues until conceptual and thematic saturation is reached, meaning that no new information or themes emerge.¹⁰ The sample size in this study was finalised once data saturation had been achieved, with a final sample of 21 women.

The sociodemographic characteristics of the participants, their duration of infertility, the number of treatment cycles received, and the outcomes of treatment are summarised in Table 1.

Data collection tools

The data were collected through a Semi-Structured Interview Form developed for this study. Women's demographic data were collected using a Personal Information Form, while their experiences and opinions regarding infertility treatment were gathered using the Interview Form on Experiences

Table 1: Sociodemographic characteristics of women, duration of infertility, number of treatment cycles, and treatment outcomes

No	Age	Education	Family	No. of cycles	Duration of infertility (years)	Previous pregnancies	Treatment outcome
P1	32	Bachelor's	Nuclear	2	5	No	Pregnant
P2	37	Postgraduate	Nuclear	3	8	Yes/4	Live birth (1)
P3	29	Bachelor's	Nuclear	2	3	No	Pregnant
P4	37	Bachelor's	Nuclear	1	4	Yes/4	Unsuccessful
P5	34	Bachelor's	Nuclear	4	6	No	Unsuccessful
P6	38	Postgraduate	Nuclear	2	7	No	Pregnant
P7	36	High school	Nuclear	6	10	Yes/1	Pregnant
P8	34	Postgraduate	Nuclear	1	4	No	Unsuccessful
P9	32	Postgraduate	Nuclear	2	3	No	Pregnant
P10	33	Bachelor's	Nuclear	2	5	Yes/1	Unsuccessful
P11	34	Bachelor's	Nuclear	3	6	No	Live birth (1)
P12	33	Bachelor's	Nuclear	2	4	Yes/1	Live birth (1)
P13	42	Postgraduate	Nuclear	3	9	Yes/1	Live birth (1)
P14	33	Bachelor's	Nuclear	2	4	No	Pregnant
P15	32	Associate	Nuclear	1	2	No	Unsuccessful
P16	32	Associate	Nuclear	2	5	Yes/1	Live birth (1)
P17	38	Postgraduate	Nuclear	7	11	No	Unsuccessful
P18	34	Bachelor's	Nuclear	5	7	Yes/1	Live birth (1)
P19	45	Postgraduate	Nuclear	1	12	No	Unsuccessful
P20	28	Bachelor's	Nuclear	1	2	No	Pregnant
P21	30	High school	Nuclear	2	3	No	Unsuccessful

P = participant. Previous pregnancies: 'Yes/n' denotes a previous pregnancy and the number of previous pregnancies. Treatment outcome: 'Pregnant' = ongoing pregnancy at the time of interview; 'Live birth (n)' = number of live births; 'Unsuccessful' = no pregnancy achieved in the reported cycles

and Views Related to the Infertility Treatment Process.

Personal information form

The Personal Information Form was developed by the researchers and includes demographic and treatment-related items. Its 15 items are designed to gather essential data such as age, education level, economic status, family type, previous pregnancies, number of live births, and number of IVF attempts. These data were used to support in-depth analysis and to better understand participants' experiences.

Interview form on experiences and views related to the infertility treatment process

This form comprises five open-ended questions designed to explore participants' experiences with the treatment process. To validate the semi-structured interview form, expert opinions were

obtained from five faculty members who were experienced in qualitative research.

The interview began with a question on what participants thought about the information provided by their doctor and the clinic during the treatment process and how the entire process had affected them. The second question explored how the treatment had affected the participant's relationship with her spouse and other aspects of her life. The third question addressed the changes that had occurred in the participant's daily life during the treatment process and whether the treatment had altered her future plans. The fourth question explored what participants thought about the potential health risks of infertility treatment and asked them to describe their concerns regarding the treatment process. The final question explored how the outcome of the participant's infertility treatment had changed her life, as well as her experiences and expectations during this process.

Data collection

The data were collected through in-depth interviews with women via the Zoom online platform in Turkey between 12 September 2023 and 20 January 2025. A snowball sampling method was employed. Beginning with participants' networks, women who met the inclusion criteria were recruited through social media platforms and interviewed using semi-structured online interviews. Each interview lasted between 30 and 60 minutes. With participants' consent, all interviews were audio-recorded and transcribed verbatim. Although snowball sampling was necessary owing to the sensitivity of the topic and the difficulty of accessing participants, deliberate efforts were made to enhance diversity within the sample. Women were recruited from different regions of Turkey through social media and personal networks, and variation was sought in terms of age, educational level, socioeconomic background, and treatment outcomes (both successful and unsuccessful attempts). This approach aimed to mitigate the potential homogeneity and bias commonly associated with snowball sampling. Data collection continued until thematic saturation was achieved.

Data analysis

The data were analysed using the six phase approach to thematic analysis. First, the researcher transcribed the audio recordings and observation notes. This initial phase involved becoming thoroughly familiar with the data by repeatedly reading the transcripts and making notes. Two researchers independently reviewed these notes, validated the audio transcripts, and agreed upon the preliminary coding. In the second stage, codes were systematically derived from the interview data.¹¹ In the third stage, the codes were organised into broader categories. In the fourth stage, the researchers reviewed the developing themes and the corresponding codes to ensure that they addressed the research questions comprehensively. The fifth stage involved examining each theme's name, scope, and definitions and conducting a detailed analysis. In the sixth and final stage, the researchers compiled and reported the findings.

The study was concluded, and the sample was finalised, upon reaching the saturation point. The Six phases followed the approach to thematic analysis described by Braun and Clarke.⁹ As this was a qualitative study, the sample size was determined on the basis of the saturation criterion. The study adhered to the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist for qualitative research reporting.¹³

Ethical considerations

This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Bartın University Social and Human Sciences Ethics Committee (Approval No: 2023-SBB-0485, dated 12 September 2023). Prior to data collection, all participants received both a written and a verbal explanation of the study's purpose, procedures, expected duration, potential risks and benefits, and their rights as participants. They were informed that participation was entirely voluntary, that they could withdraw at any time without any negative consequence, and that withdrawal would not affect any aspect of their ongoing or future medical care. Written informed consent was obtained from every participant, and verbal consent was reconfirmed at the start of each online interview before audio recording began. To protect confidentiality, identifying information was removed during transcription, and each participant was assigned a code (P1–P21) that was used in all data files and quotations. Audio recordings, transcripts, and consent forms were stored on password-protected, encrypted devices accessible only to the research team. Given the emotionally sensitive nature of the topic, the interviewer was trained to recognise signs of distress, to allow participants to pause or terminate the interview at any time, and to provide referral information for psychological support services if required. Participants did not receive any financial incentive for taking part in the study.

Results

A total of 21 women who had undergone infertility treatment within the past year participated in the study. The participants' ages ranged from 28 to 45

years, with most of the women being between 30 and 38 years of age. Most women had a bachelor's or postgraduate degree, all lived in nuclear family structures, and the number of treatment cycles received ranged from one to seven. The duration of infertility ranged from two to twelve years, and treatment outcomes included ongoing pregnancy, live birth, and unsuccessful cycles, as detailed in Table 1. The themes and subthemes derived from participants' views on the treatment process are presented in Table 2 and illustrated in Figure 1. The analysis revealed six main themes and several related subthemes that reflect the participants' experiences, perceptions, and emotional responses during the treatment process.

Theme 1: Healthcare professional approach

Participants' accounts indicated that the manner in which healthcare professionals communicated and behaved towards them was a fundamental factor shaping their treatment experience. The healthcare professional approach emerged in two distinct dimensions: the provision of information and the relational behaviour displayed during clinical encounters. Both dimensions had a profound effect on women's emotional state, their trust in the treatment, and their willingness to continue the process.

Subtheme 1.1: Information provision

The information women received from their healthcare team during diagnostic and treatment procedures emerged as a central determinant of their psychological adjustment. Three patterns characterised this experience: information that was perceived as adequate and reassuring, information that was perceived as insufficient and disorienting, and information that was perceived as conflicting and as undermining trust. Women emphasised that consistent, transparent, and detailed explanations enabled them to make sense of complex medical procedures and to feel like active participants in their own care.

Adequate information

"The information was very clear and comprehensive. Especially the explanations from the nurses were very detailed... umm... and the doctor was the same." (P2)

"So yes, the explanations from the nurses, doctors, and other healthcare staff were quite sufficient. They didn't leave any questions in my mind." (P8)

Inadequate information

"My previous doctor was not very good at providing information; he rarely explained anything, so I changed doctors. Overall, I don't think I was given much information." (spoken in a sad tone) (P15)"I was not at all satisfied with the information provided during the transfer step. Before the transfer, we were not told how many embryos we had left. During the procedure, the embryologist came and said we only had two embryos remaining. That completely shattered my morale." (P20)

Conflicting information

"On the day of the insemination, they told me to lie down with my legs stretched out. But then, when we tried insemination again, they said, 'Who told you that? If you do that, the semen won't move toward the uterus; you need to bend your legs.' So, two different nurses gave me two contradictory instructions." (P9)"During the insemination, they told us to abstain from sexual intercourse. But later, the doctor who followed my pregnancy said intercourse should have been encouraged after insemination to increase the chance of conception." (P9)"The contradictory information I received during treatment really wore me out." (P9)

Subtheme 1.2: Behaviour

Beyond the content of the information shared, the affective quality of the interactions with healthcare professionals exerted a powerful influence on women's experiences. Four behavioural categories emerged from the data: motivation (in both positive and negative forms), attentiveness, neglect, and mistreatment. Encouraging words and attentive caring behaviours strengthened women's resilience and engagement with the treatment, whereas neglectful or harsh interactions amplified feelings of vulnerability and emotional pain.

Motivation

"They tried to keep me motivated during the treatment process. They would say things like, 'Just

Table 2: Themes and subthemes related to the treatment process

Theme	Subtheme	Category
1. Healthcare professional approach	1.1 Information provision	Adequate information; inadequate information; conflicting information
1. Healthcare professional approach	1.2 Behaviour	Motivation (positive and negative); attentiveness; neglect; mistreatment
2. Treatment environment	2.1 Safe treatment environment	Coherent communication; professional competence; calm clinical atmosphere
2. Treatment environment	2.2 Unsafe treatment environment	Inconsistent information; dismissive attitudes; lack of perceived control
3. Difficulties related to treatment	3.1 Financial difficulties	High treatment costs; financial loss; loss of work time; commodification; financial exhaustion
3. Difficulties related to treatment	3.2 Access-related difficulties	Difficulty accessing medication; difficulty accessing services
4. Issues related to medication	4.1 Difficulty using medications	Cold-chain storage; precise injection timing; frequent dose adjustments
4. Issues related to medication	4.2 Side effects of medications	Physical: weight gain, pain, OHSS. Psychological: tension, sadness, anxiety, negative body image
4. Issues related to medication	4.3 Health concerns	Cancer risk; early-onset menopause; future health risks; no perceived risk
5. Treatment outcome	5.1 Negative pregnancy test result	Disappointment; devastation; sadness; exhaustion; discontinuation of treatment
5. Treatment outcome	5.2 Positive pregnancy test result	Ambivalent emotions; happiness; future-oriented hope
6. Overall experiences	6.1 Treatment process	Positive experiences; negative experiences
6. Overall experiences	6.2 Expectations	Attention and information; compassionate communication; quality of service; expectation of a positive outcome
6. Overall experiences	6.3 Advice to others	Not postponing treatment; not losing hope and persevering; spousal and social support; taking treatment and doctors seriously; being mentally prepared for negative outcomes; improving psychological well-being

Note :OHSS =ovarian hyperstimulation syndrome

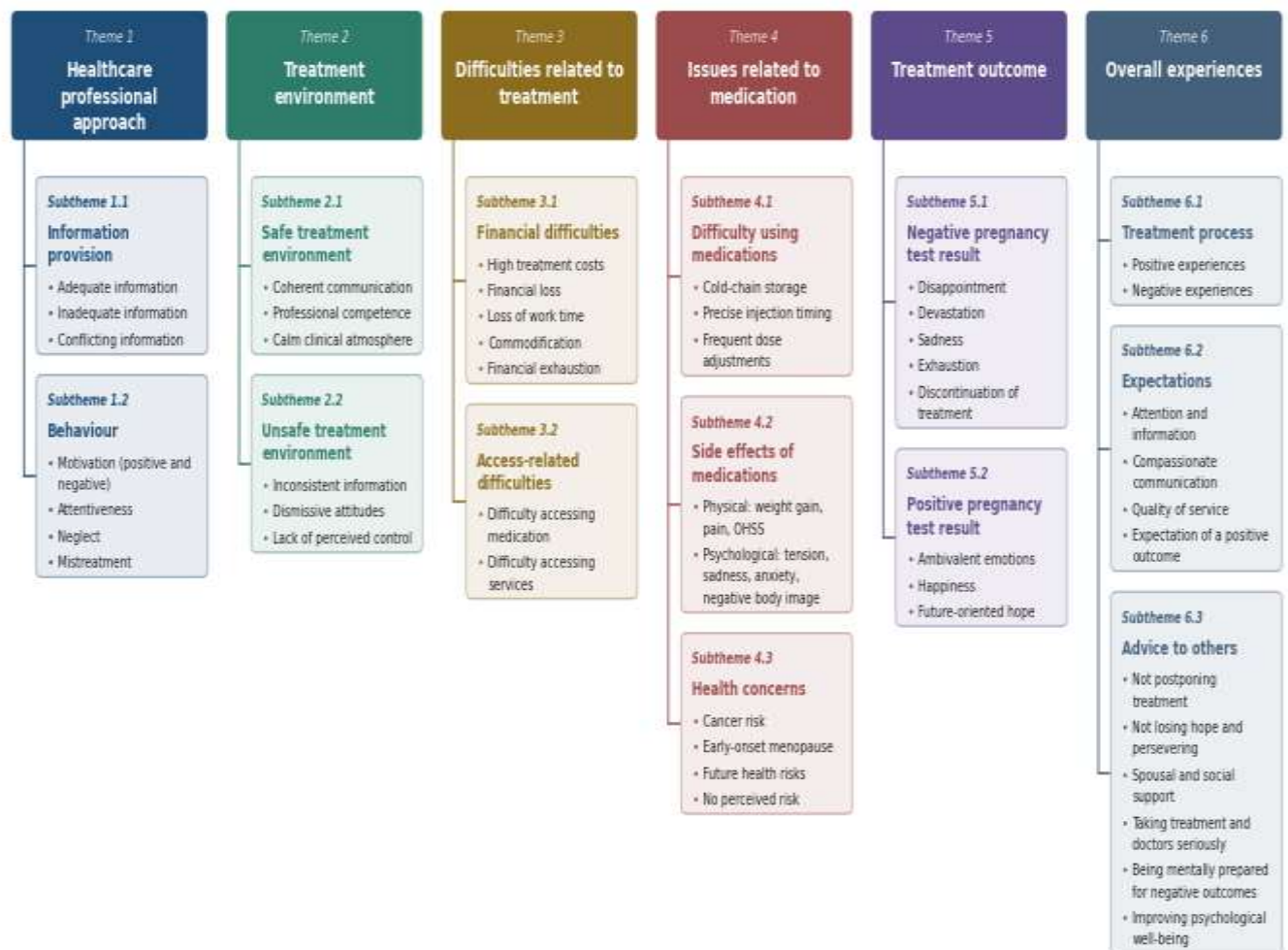


Figure 1: Thematic map of women's experiences during treatment: main themes and subthemes

think about holding your baby in your arms' motivating words like that." (P11)

"Our first transfer failed. The doctor there was always negative. It really brought us down." (P19)

Attentiveness

"My doctor and nurse were incredibly attentive. They asked me every single day about what I ate, what I drank, and my medications. Honestly, they played the biggest role in the positive outcome." (P3)

"It was so comforting to know there were people around me who really cared. If the doctor didn't care, the process would have been even more emotionally draining." (P5)

"The nurse gave me her phone number. Whenever I had the tiniest concern, I would call her, and she would explain things for hours." (P20)

Neglect

"I had some bleeding, but it wasn't like a miscarriage. I think if I had received a cerclage at that point, I probably wouldn't have miscarried." (P7)

"I took hormones three times. I went through insemination twice. Even though I told them the second round would coincide with the holiday, they still gave me the injections. Later, they said, 'Your insemination time falls during the holiday, so we're not going to proceed.'" (P9)

Mistreatment

"I was hospitalised for two weeks due to bleeding and two more weeks due to OHSS. The healthcare staff seemed emotionally numb. I did not sense the compassion one would expect from a clinic that should have been more sensitive." (P8)

"The hospital really frightened me. They said they would cancel the insemination even for something as minor as a cold. One time, they cancelled because of a holiday. That made me incredibly anxious." (P9)

Theme 2: Treatment environment

The physical and psychosocial environment in which treatment was delivered emerged as a critical theme shaping women's confidence and adherence. Participants distinguished between safe environments, in which trust was established through coherent communication, professional competence, and a calm clinical atmosphere, and unsafe environments, characterised by inconsistent information, dismissive attitudes, and a lack of perceived control. The quality of the treatment environment directly influenced participants' emotional security and their willingness to continue with treatment.

Subtheme 2.1: Safe treatment environment

"I did not experience any major issues during my treatment process because a sense of trust had been established. Our doctor created a secure atmosphere, and we faced no problems." (P4)

"There was so much misinformation online and in my surroundings. It was really demoralising. I chose to focus solely on what my doctor told me. That made everything much easier." (P6)

Subtheme 2.2: Unsafe treatment environment

"A day-three transfer was performed, and I got my period right after clearly, the embryo did not implant. When we spoke to the doctor, do you know what he said? 'The sperm wasn't high quality anyway we expected this.' But before, they had told us the sperm was perfectly fine and everything was going smoothly." (P1)

"I had no choice but to start IVF with a doctor I didn't want. He provided no information and reacted harshly when I asked questions. He

controlled the entire process. I felt like a test subject." (P11)

Theme 3: Difficulties related to treatment

Participants described a range of difficulties that extended well beyond the medical procedures themselves. These difficulties clustered into two main areas: financial difficulties and access-related difficulties. Both dimensions illustrate how the structural and economic context of infertility care in Turkey shapes women's individual experiences, often adding layers of stress to an already emotionally demanding process.

Subtheme 3.1: Financial difficulties

The financial dimension of treatment was a recurring source of distress. Women highlighted high direct costs, indirect financial losses related to time taken away from work, the perception of being treated as a source of profit, and a cumulative sense of financial exhaustion. For some women, these economic pressures became indistinguishable from the emotional weight of the process and at times influenced decisions about whether and where to continue treatment.

"After the failed transfer, the doctor called and said to come back in a few months. Then they called again and said if we did a second cycle there, we'd get a 20% discount. We were just a commodity to them, a source of money. Maybe they even failed the first transfer intentionally just to get us to pay again." (P1)

"I was invited as a speaker at a conference abroad. But because I didn't know whether the insemination would succeed, I missed my chance to buy a reasonably priced plane ticket. It turned into a serious financial burden." (P9)

"I went to an IVF clinic based on a friend's recommendation, but it had turned into a commercial business. I had my examination in one room and picked up the medications from another all within the same clinic." (P16)

Subtheme 3.2: Access-related difficulties

Access to medications and clinical services was another major source of strain. Women reported having to travel long distances to obtain treatment,

search across cities for specific medications, and reorganise their family and work life to accommodate clinic visits. These access-related obstacles affected adherence to treatment schedules and often heightened psychological tension during sensitive periods of the cycle.

Difficulty accessing medication

"There were so many different medications that were not readily available. We had to reach out to various cities just to find them." (P3)

"There was a period when Gonapeptyl was unavailable. It was a huge issue trying to find that injection. I even had to postpone the start of treatment because of it. I was supposed to begin that evening, but we just couldn't get the injection." (P14)

Difficulty accessing services

"I couldn't get proper care in my city, so I had to travel elsewhere. The trip alone was exhausting. Since I had nowhere to stay, I had to live at someone else's house." (P11)

"Even though the distance wasn't too long, having to travel regularly physically drained me." (P12)

"My husband works shifts. Because the treatment process was lengthy, I had to stay with my family in Ankara without him at times." (P20)

Theme 4: Issues related to medication

Medication-related experiences constituted a major part of women's accounts. Three subthemes captured these experiences: the practical difficulty of using complex medication regimens, the physical and psychological side effects of those medications, and the health concerns that arose in relation to long-term hormonal exposure. Together, these subthemes illustrate that medication was experienced not only as a clinical intervention but also as a lived, embodied process that reshaped daily life.

Subtheme 4.1: Difficulty using medications

Participants described how the requirements of cold-chain storage, precise injection timing, and frequent dose adjustments structured their daily

routines. Setting alarms for nightly injections, planning travel around medication schedules, and rearranging family responsibilities were common experiences that placed an additional cognitive and emotional burden on women.

"During the treatment, I had to store certain medications in a cold chain and administer the injections at specific times. If I needed to go somewhere, I had to plan everything around those hours." (P13)

"At that time, we were constantly setting alarms at home for the injection schedule. It became all about timing, it's time for the injection, now this, now that.' My entire life was built around that schedule." (P14)

Subtheme 4.2: Side effects of medications

Side effects were reported in both physical and psychological domains. Physically, women described weight gain, painful procedures (especially egg retrieval and intramuscular injections), and ovarian hyperstimulation syndrome (OHSS). Psychologically, hormonal medications were associated with tension, sadness, anxiety, and disturbances in body image. These effects were often cumulative and exacerbated the emotional toll of treatment.

Physical side effects

Weight gain

"I had such a hard time losing weight. I used to be slim, but I gained nearly 7–8 kilograms. When I later tried to lose it, it was incredibly difficult. I feel like my body changed completely." (P1)

"I took a lot of hormones, and because of my autoimmune disease, I also had to undergo steroid treatment. All of that caused weight gain due to increased appetite and fluid retention." (P2)

"The hormone treatment made me constantly hungry. I was eating all the time, day and night, and I gained weight. Healthy eating has become a real struggle for me." (P20)

Pain

"Then there was the egg retrieval. That part was painful."

(P2)"The egg retrieval stage was the hardest. I mean, they put you under anaesthesia and collect

the eggs. The abdominal pain is intense, it's agonising." (P5)

"I had to get my injection in the hip. The medication didn't dissolve and formed lumps. It was so painful, I couldn't walk, sit, or lie down. It felt like paralysis. Whichever side the injection was given, I'd drag that leg the whole day." (P11)

Ovarian hyperstimulation syndrome

"I developed OHSS during my first IVF cycle. It caused so much bloating and pain." (P2)

"I experienced OHSS. Apparently, it's a common complication. I couldn't get out of bed or walk for nearly three months. It was a really tough time for me." (P8)

Psychological side effects: tension, sadness, negative body image, and anxiety

"The hormone meds made me tense, irritable, aggressive. I mean, all that hormone overload. The second round made things even worse." (P1)

"The hormone injections make you feel like you're constantly on your period tension, bloating, irritability, everything." (P5)

"The effects of the medications made me really tense. And of course, it's not psychologically easy it's a draining process." (P6)

Subtheme 4.3: Health concerns

Concerns about the long-term health consequences of hormonal stimulation surfaced repeatedly in the interviews. Four patterns were observed: worry about cancer risk, worry about early menopause, worry about unspecified future health risks, and a counter-pattern in which participants either dismissed potential risks or chose not to dwell on them in order to focus on the goal of pregnancy.

Cancer risk

"I didn't have any health concerns. All I wanted was to feel the emotion of becoming a mother. That feeling outweighed everything else." (P1)

"I did worry about the treatment because I was taking a lot of hormones. I thought, could this increase the risk of cancer in the future? But since I

was focused on getting pregnant, I pushed those thoughts aside." (P2)

"Of course, I asked the doctor and nurse about my concerns. I didn't hesitate to ask 'Is there a risk? What level of risk?' I accepted the explanation they gave me." (P8)

Early-onset menopause

"They told me during the first unsuccessful treatment that menopause would come earlier. Later on, they said it again, after the second cycle. That my eggs had been collected, and my menopause had been brought forward in age." (P16)

Future health risks

"You end up using so many supplementary medications. You start to wonder will there be side effects later? That thought was emotionally exhausting." (P4)

"Since it's hormonal support and involves constant external intervention, of course, it made me worry. What if it causes something? What if it has long-term consequences?" (P17)

No perceived risk

"I honestly don't think IVF treatment poses any health risk." (P3)

"I don't believe there are health risks associated with IVF. I didn't experience any side effects from the hormones." (P13)

"All I heard from others or was told by the doctor was that the hormones might cause hair growth or weight gain. Nothing else was mentioned. I didn't really pay attention to that aspect." (P14)

Theme 5: Treatment outcome

The outcome of the treatment cycle, whether negative or positive, profoundly shaped women's emotional and existential experience of infertility care. Two subthemes were identified: negative pregnancy test results, which were associated with profound distress and at times with treatment discontinuation; and positive pregnancy test results, which evoked a complex mixture of joy and anxiety. Importantly, even positive outcomes were rarely experienced as unambiguous relief.

Subtheme 5.1: Negative pregnancy test result

A negative result frequently triggered intense feelings of disappointment, psychological devastation, sadness, and exhaustion. For some women, repeated negative outcomes ultimately led to a decision to discontinue treatment. The psychological aftermath of a failed cycle extended beyond the individual to affect partners, families, and wider social networks.

Disappointment, devastation, sadness, exhaustion, and discontinuation of treatment

"We received very negative results back then. Of course, we were devastated. And it's not just the couple our families, our relatives, everyone was upset." (P3)

"So anyway (sighs), everything looked good embryo quality, the transfer was done. Then the day came, and the result was negative again. Another kind of collapse. When the pregnancy test is negative, it really breaks you down." (P5)

Subtheme 5.2: Positive pregnancy test result

A positive pregnancy test was experienced as a powerful, life-affirming event. However, many participants described an ambivalence in which happiness coexisted with persistent anxiety about possible pregnancy loss. Hopeful imagery and future-oriented dreams emerged alongside heightened vigilance about bodily sensations and ongoing emotional vulnerability.

Ambivalence, happiness, and future-oriented hope

"Oh, it felt like a miracle. I'm walking on air. I wake up so often during sleep, and every time I turn over, I feel anxious, wondering if something might have happened. My anxiety increased this time. But I'm so happy." (laughs) (P1)

"When I received that news, I felt like the sun rose again in my life." (laughs) (P7)

Theme 6: Overall experiences

In reflecting on the totality of their journey, participants articulated three overarching subthemes: the overall character of the treatment

process, their expectations of the healthcare system, and the advice they would offer to other women in similar situations. These reflections capture the women's retrospective sense-making of an emotionally complex experience and their hopes for how care could be improved.

Subtheme 6.1: Treatment process

Participants' overall appraisals of the process oscillated between positive and negative perspectives. Negative experiences were typically tied to physical pain, harsh communication, and accumulated losses, whereas positive experiences emerged from any pregnancy achieved, supportive interactions, and the personal growth or healthier lifestyle changes that came out of the journey.

Negative experiences

"The losses I experienced and the treatments I underwent were all negative experiences for me. The back pain, the hormone treatments, the weight gain these were all unpleasant." (P2)

"There was this one doctor, we'll never forget what he said to my husband. He looked him in the eye and said, 'No matter how hard you try, you will never have a child in your lifetime.' That was such a huge blow for us. Our emotions were completely crushed. All our hopes were shattered." (P3)

Positive experiences

"Even if it was only for eight weeks, experiencing pregnancy was a positive thing. Another positive was the PGT preimplantation genetic testing. Knowing that if the pregnancy had continued, I would've had a healthy baby with good genes gave me comfort." (P2)

"The treatment process didn't bring major changes to my life apart from using medications and attending check-ups. But I'm more careful with my diet now. I try to exercise regularly. I'm making an effort to live a healthier lifestyle." (P13)

Subtheme 6.2: Expectations

Women articulated four main areas of expectation from healthcare professionals and institutions: more personalised attention and information, healthier and more compassionate communication,

higher overall quality of service, and ultimately the achievement of a positive treatment outcome. These expectations indicate where current care falls short of women's needs and where targeted improvements might be most impactful.

Attention and information

"Because we weren't given personalised attention, and at that moment, you really want to feel special. You want to feel that their attention is focused on you. But your questions are brushed off, and you're examined quickly. Since different departments were involved my husband saw a urologist and I saw a gynaecologist from the infertility unit I felt the communication between them was weak." (P3)
 "My expectation from the institution and the team was to receive psychological support, answers to every question, a compassionate look, a kind gesture that would've been enough for me." (P8)

Expectation of a positive outcome

"My only expectation (cheerfully) was to have a healthy baby with fully formed arms and legs." (P3)
 "Our only wish was for me to get pregnant so we could finally enter that phase of parenthood. To be able to say, 'I'm pregnant, we're having a child.' We deeply longed to be able to have those conversations." (P5)
 "Of course, I was hoping for a positive result. Every little sign makes you hopeful like, is my stomach upset, am I going to the bathroom a lot at night, could I be pregnant? These things make you start expecting something." (P10)

Subtheme 6.3: Advice to others

Participants drew on their own experiences to offer guidance to other women considering or undergoing infertility treatment. Their advice clustered around themes of timing (not postponing conception or treatment), psychological resilience (not losing hope and persevering), interpersonal support (involving spouses, family, and friends), realistic expectations (being mentally prepared for negative outcomes), and self-care (improving psychological well-being). Together, these reflections highlight the dual emphasis on hope and

pragmatism that characterised participants' broader stance towards infertility treatment.

Not postponing treatment

"I always tell my friends who are getting married talk to a gynaecologist and a urologist first. If you're going to delay having kids, do it with that knowledge." (laughs) (P1)
 "I'd recommend trying to conceive naturally, calmly, and without overthinking it, especially at younger ages. I believe problems increase as we age." (laughs) (P2)
 "My advice is not to postpone the idea of having children. Do your research, start treatment at a centre you trust, engage in activities that make you happy, take care of your mental health, stay connected with your partner, and maintain your social ties with friends and family." (P20)

Not losing hope and persevering

"Even after starting IVF, they shouldn't lose hope. I had three losses, but I approached each round with hope. I lost the third one too, but then I had a spontaneous pregnancy on the fourth try. So I suggest continuing treatment without losing hope." (P2)
 "I spoke with a few people at the hospital I always tell them not to give up. Tune out the noise and stay focused on your goal." (P6)
 "Never give up hope. I only had one egg, and they said, 'Let's transfer it anyway, maybe it'll work.' And it did. I became a mother. So yes, never give up hope." (P11)

Spousal and social support

"The whole process is on the woman she'll go under anaesthesia, wake up, undergo the transfer, and feel all the pain. That's why the spouse is crucial he should offer full support." (laughs) (P5)
 "IVF is a process that both the woman and the man need to be mentally prepared for. Serious psychological support is necessary. My family supported me, and so did my husband's family, neighbours, and friends. That's why I believe psychological support is vital throughout the process." (P8)

Taking treatment and doctors seriously

"As I said, take the treatment very seriously. Pay close attention to the timing and dosage of medications even a 0.1 cc difference matters. So administer medications very carefully, listen closely to your nurses and doctors, and pay attention to your nutrition, exercise, and mental state. Everything matters." (P3)

"I think it's important that patients believe they are seeing a good doctor. If you're with a good doctor, I believe you need to trust them." (P4)

Being mentally prepared for negative outcomes

"Psychologically, it's important not to assign too much meaning to it." (laughs) "You have to consider the possibility of failure. I was extremely positive so positive that when it didn't happen, it really crushed me." (P5)

"On the other hand, knowing that treatment might fail just as easily as it might succeed helps you stay prepared for anything." (P13)

Improving psychological well-being

"Of course, becoming a mother is precious. But first, women should love themselves and get to know themselves. That helps them move through this process in a healthier state of mind." (P13)

"My advice to others going through treatment is not to listen to what others say. It's a stressful process. Talk only to those who lift you up." (P18)

"I would suggest doing whatever activities make you feel good, maintaining your emotional health, and staying connected with your partner, friends, and family." (P20)

Discussion

This study examined the experiences of women undergoing infertility treatment. Some participants stated that the information they had received during the treatment process was clear and satisfactory, which helped them trust the process and understand it more thoroughly. This finding aligns with previous research suggesting that effective communication and information sharing by healthcare professionals enhance patient

compliance and provide psychological support.^{14,15} However, other participants reported receiving insufficient or conflicting information. Inadequate or contradictory guidance may negatively affect patients' adherence to treatment and its outcomes. Contradictory health information should be understood not only as a source of patient distress but also as an indicator of institutional mistrust and medical uncertainty. Conflicting information, especially at critical stages of the process, leaves patients uncertain about what actions to take. This uncertainty adds to the physical, psychological, and financial stress of treatment and exacerbates the emotional burden already experienced by women.¹⁶ The subtheme of being seen as a financial asset not only reflects participants' frustration with the high costs of infertility treatment but also illustrates a broader process of commodification of reproduction. Women's accounts of being treated as a commodity or a source of income resonate with critical scholarship that describes how reproductive technologies transform intimate experiences of fertility and motherhood into market-driven transactions. This perspective suggests that infertility treatment in Turkey, while offering hope, also places women in a position where their bodies and reproductive potential become embedded within economic logics.

These findings are consistent with international qualitative literature describing infertility treatment as an emotionally and socially demanding experience. Studies from Asia, Europe, and North America have similarly identified communication, financial burden, social pressure, and the relational dimension of clinical encounters as central concerns of women undergoing assisted reproduction. The Turkish context, however, adds a particular layer of meaning. In a society in which motherhood is closely tied to women's social identity, both the experience of infertility and the public visibility of being in treatment may amplify perceived stigma and intensify the emotional weight of each clinical interaction. Reading the present results alongside this international literature suggests that, while many features of the infertility journey are shared across settings, culturally specific norms around motherhood, family-building, and gendered responsibility shape both the meaning women attach to their experiences and

the kinds of support they consider acceptable to seek.

Participants expressed that motivational messages from healthcare staff helped ease the psychological weight of treatment. These findings support existing literature that underscores the importance of psychological support in infertility care.^{5,17-19} Maintaining women's morale during treatment contributes positively to their faith in the process and to the overall success of the treatment. Conversely, some participants noted that the use of negative language by healthcare staff caused discouragement. These findings are in line with prior studies that highlight the impact of emotional support and motivation on treatment success.^{20,21} Instances of neglect during the process also had a detrimental emotional impact. A systematic review has indicated that clinic-related and organisational issues are among the primary reasons why patients abandon treatment.²² Given the emotionally intense nature of infertility treatment, these findings reiterate the necessity for healthcare professionals to act with empathy and sensitivity.

From a practical standpoint, these results indicate that brief, structured communication training for clinicians and nurses working in infertility clinics, focused on empathic language, the consistent delivery of information, and the recognition of psychological distress, may meaningfully improve the patient experience. Embedding routine psychological screening at key clinical milestones—such as the initial consultation, the day of pregnancy testing, and after a failed cycle—could help identify women who may benefit from additional support.

Positive experiences during the treatment process may enhance individuals' motivation and help foster a more optimistic attitude. For instance, P2's experience with genetic screening represented a hopeful memory in her journey. Since genetic testing increases the likelihood of having a healthy baby, such experiences can strengthen patients' optimism towards treatment. The subtheme "Expectation of a positive outcome" illustrates that most participants were motivated by the hope of achieving a successful result. Accordingly, hope-centred group counselling is recommended for stress management, particularly for women who have experienced unsuccessful IVF cycles.^{20,23}

Women also experienced physical challenges during the infertility treatment process. These included weight gain, pain from egg retrieval, OHSS, and bruising or pain at injection sites. These complaints are consistent with the existing literature, which reports that procedures such as ovulation induction, egg retrieval, and embryo transfer are often accompanied by pain, ascites, and nausea.²⁴ In addition, previous studies have shown that some patients discontinue treatment because of the severe pain of oocyte retrieval or the side effects of medications or procedures.²²

In recent years, the increased use of assisted reproductive technology (ART) and related infertility medications has raised concerns about cancer risks. Participants in this study expressed varied thoughts about the possibility of cancer. Such concerns are often alleviated or eliminated by information provided by healthcare professionals. However, research notes that multiple factors play a role in cancer development, making it difficult to definitively establish a causal link between infertility medications and cancer.²⁵ Evidence from nine cohort studies also shows that infertile women are at greater risk of premature and early menopause.²⁶

Loss of hope and giving up are frequent psychological obstacles in infertility treatment. Although couples usually begin treatment with optimism, their stress levels tend to increase as the process continues.²⁷ Therefore, keeping hope alive from the outset may help individuals to better cope with the emotional demands of the process. Spousal support is one of the most critical psychological factors in infertility treatment. Emotional and practical support between partners can positively affect the treatment experience. Previous research confirms that spousal support contributes significantly to treatment adherence.^{5,28} Likewise, support from family and friends can help to make the process more manageable. To our knowledge, this is the first qualitative study conducted in Turkey to illustrate how infertility treatment is simultaneously experienced as a source of hope and resilience and as a site of medical trauma and commodification. By situating women's voices within the specific sociocultural context of Turkey, the study expands existing literature that has largely focused either on clinical outcomes or on negative

psychological consequences and instead highlights the dual realities of vulnerability and strength that shape women's lived experiences.

For international readers, these findings have several implications. First, they reinforce that the experience of infertility treatment cannot be understood through a purely biomedical lens; the relational, financial, and existential dimensions are equally formative. Second, they suggest that interventions developed in high-income, predominantly Western contexts may need cultural adaptation when delivered in settings where motherhood carries strong symbolic meaning and where public coverage of treatment is partial. Finally, they underline the value of qualitative inquiry in capturing how structural features of healthcare systems and prevailing cultural norms come together in the embodied experience of women navigating infertility.

Strengths, limitations, and implications

This study has several strengths. To the best of our knowledge, it is one of the first qualitative studies in Turkey to explore the multifaceted experiences of women who have undergone infertility treatment in such depth, drawing on a sample that includes women from different geographical regions, educational backgrounds, and treatment outcomes. The use of in-depth, semi structured online interviews allowed participants to share sensitive material from a familiar environment, which may have enhanced openness and disclosure. The analysis followed a systematic six phase thematic analysis procedure with independent dual coding, and reporting was guided by the COREQ checklist, supporting methodological transparency and rigour. The diversity of the sample, in terms of age, parity, number of treatment cycles, and outcomes, contributes to the richness and credibility of the themes generated.

Several limitations should also be noted. First, the use of the snowball sampling method, although practical for reaching women in a sensitive and hard-to-reach population, may have led to sample homogeneity and selection bias. To mitigate this, efforts were made to include women from different geographical regions of Turkey, with

varied socioeconomic backgrounds, and with both successful and unsuccessful treatment experiences. Nevertheless, the findings may not fully capture the diversity of women's experiences. Second, the study relied solely on self-reported accounts, which may be influenced by recall bias or by the emotional states of participants at the time of the interview. Third, the perspectives of spouses, families, and healthcare professionals were not included, which limits the analysis to women's voices alone and does not reflect the relational and systemic dimensions of infertility treatment. Finally, as with most qualitative research, the findings are context-specific and cannot be generalised to all women undergoing infertility treatment in Turkey or in other cultural settings.

The implications of these findings for policy and practice are several. At the level of clinical care, the results support the integration of structured psychosocial assessment, empathic communication training, and standardised information protocols into routine infertility services in order to reduce contradictory messaging and to address women's emotional needs alongside their medical care. At the institutional level, dedicated patient-navigation roles, clear written information sheets at each stage of treatment, and accessible psychological support services could mitigate some of the relational and informational gaps reported by participants.

At the level of nursing education, infertility-specific modules that address communication, ethical sensitivity, and the management of distress would prepare future nurses to act as primary support figures for women in this context. At the policy level, the findings underscore the importance of ongoing public reimbursement for infertility treatment, transparent regulation of private fertility clinics, and the development of national standards for the psychosocial care of women undergoing assisted reproduction. Future research should expand on these findings by including the experiences of partners and clinicians, conducting longitudinal designs that follow women across multiple treatment cycles, and undertaking comparative work across different cultural contexts in order to strengthen transferability and inform culturally tailored interventions.

Conclusions

The findings indicate that infertility treatment is not solely a physical experience; it is a complex process with emotional, psychological, and social dimensions. Participants expressed a desire for personalised attention, empathy, and clear communication during treatment. The nature of the relationship established with healthcare professionals directly influences trust in the treatment and commitment to the process. To address these needs, it is recommended that healthcare workers receive training in empathy-based communication, that they support individuals' active involvement in the information-sharing process, that access to psychoeducational services such as group counselling be expanded, and that the treatment process be restructured in ways that minimise its impact on women's quality of life.

Contribution of authors

ŞKE, ECE, and OK designed the study, guided the writing of the manuscript, and reviewed the manuscript. ŞKE, ECE, and RYA collected the data and revised the manuscript. OK and ŞKE processed the data, performed the analysis, and drafted the manuscript. ŞKE, ECE, OK and RYA approved the final manuscript.

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Conflict of interests

The authors declare that there are no conflicts of interest.

Data availability statement

The qualitative data generated and analysed during the present study are not publicly available because they contain sensitive personal narratives that could compromise participant confidentiality. De-identified excerpts may be made available from the corresponding author upon reasonable request and subject to approval by the Bartın University Social and Human Sciences Ethics Committee

References

1. Beckmann C. Infertility. In: Obstetrics and Gynecology. 8th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2014.
2. Pasch LA, Holley SR, Bleil ME, Shehab D, Katz PP and Adler NE. Addressing the needs of fertility treatment patients and their partners: are they informed of and do they receive mental health services? *Fertil Steril* 2016; 106(1): 209-215.e2. doi: 10.1016/j.fertnstert.2016.03.006
3. Hammarberg K, Astbury J and Baker HWG. Women's experience of IVF: a follow-up study. *Hum Reprod* 2001; 16(2): 374-383. doi: 10.1093/humrep/16.2.374
4. Ying L-Y, Wu LH and Loke AY. The experience of Chinese couples undergoing in vitro fertilization treatment: perception of the treatment process and partner support. *PLoS One* 2015; 10(10): e0139691. doi: 10.1371/journal.pone.0139691
5. Truong LQ, Luong TB, Tran TH, Dang NH, Nguyen LH, Nguyen TT and Nguyen PTH. Infertility-related stress, social support, and coping of women experiencing infertility in Vietnam. *Health Psychol Rep* 2022; 10(2): 129-138. doi: 10.5114/hpr.2022.113437
6. Turan A and Beydağ KD. The relationship of intolerance to uncertainty and psychological well-being in women treated with infertility. *J Curr Nurs Res* 2023; 3(2): 44-51.
7. Yılmaz T and Yeşiltepe Oskay Ü. Methods to cope with infertility stress and nursing attitudes. *HSP* 2015; 2(1): 100-112. doi: 10.17681/hsp.20993
8. Redshaw M, Hockley C and Davidson LL. A qualitative study of the experience of treatment for infertility among women who successfully became pregnant. *Hum Reprod* 2007; 22(1): 295-304. doi: 10.1093/humrep/del344
9. Braun V and Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; 3(2): 77-101. doi: 10.1191/1478088706qp0630a
10. Patton MQ. *Qualitative Research and Evaluation Methods*. 4th ed. Thousand Oaks: SAGE Publications; 2015.
11. Creswell JW and Poth CN. *Qualitative Inquiry and Research Design: Choosing Among Five*

- Approaches. 4th ed. Thousand Oaks: SAGE Publications; 2017.
12. Creswell JW. Nitel Araştırma Yöntemleri: Beş Yaklaşım Göre Nitel Araştırma ve Araştırma Deseni. Budak A, Budak İ, eds. Ankara: Siyasal Kitabevi; 2018.
13. Tong A, Sainsbury P and Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007; 19(6): 349-357. doi: 10.1093/intqhc/mzm042
14. Mehra P and Mishra A. Role of communication, influence, and satisfaction in patient recommendations of a physician. *Vikalpa J Decis Makers* 2021; 46(3): 199-208. doi: 10.1177/02560909211027090
15. Sharkiya SH. Quality communication can improve patient-centred health outcomes among older patients: a rapid review. *BMC Health Serv Res* 2023; 23(1): 886. doi: 10.1186/s12913-023-09869-8
16. Rothwell E, Lamb B, Johnson E, Gurtcheff S, Riches N, Fagan M, Sabatello M and Johnstone E. Patient perspectives and experiences with in vitro fertilization and genetic testing options. *Ther Adv Reprod Health* 2020; 14: 2633494119899942. doi: 10.1177/2633494119899942
17. Dembińska AA. Psychological determinants of life satisfaction in women undergoing infertility treatment. *Health Psychol Rep* 2016; 4(2): 146-158. doi: 10.5114/hpr.2016.56617
18. Elyasi F, Parkoobi PI, Naseri M, Samadaee G, Hamed M, Peyvandi S and Azizi M. Relationship between coping/attachment styles and infertility-specific distress in Iranian infertile individuals: a cross-sectional study. *Int J Reprod Biomed* 2021; 19(4): 347-360. doi: 10.18502/ijrm.v19i4.9061
19. Shafaghi M, Ahmadinezhad GS, Karimi FZ, Mazloun SR, Golbar Yazdi HZ and Afiat M. The effect of supportive counseling on self-esteem of infertile women after in vitro fertilization (IVF) failure: a randomized controlled trial study. *BMC Psychol* 2024; 12(1): 408. doi: 10.1186/s40359-024-01914-3
20. Masoumi SZ, Abdoli S, Kazemi F, Pilehvari S, Ahmadpanah M, Khodakarami B and Fazli F. Stress management through cognitive reconstruction and positive thinking in women with recurrent failed in vitro fertilization: a randomized controlled trial. *BMC Psychiatry* 2025; 25(1): 119. doi: 10.1186/s12888-025-06533-9
21. Jiang L, Zeng T, Wu M, Yang L, Zhao M, Yuan M, Zhu Z and Lang X. Infertility psychological distress in women undergoing assisted reproductive treatment: a grounded theory study. *J Clin Nurs* 2024; 33(9): 3642-3658. doi: 10.1111/jocn.17195
22. Gameiro S, Boivin J, Peronace L and Verhaak CM. Why do patients discontinue fertility treatment? A systematic review of reasons and predictors of discontinuation in fertility treatment. *Hum Reprod Update* 2012; 18(6): 652-669. doi: 10.1093/humupd/dms031
23. Rahimi R, Hasanpour S, Mirghafourvand M and Esmaeilpour K. Effect of hope-oriented group counseling on mental health of infertile women with failed IVF cycles: a randomized controlled trial. *BMC Psychiatry* 2021; 21(1): 286. doi: 10.1186/s12888-021-03280-5
24. Lin J-L, Lin Y-H and Chueh K-H. Somatic symptoms, psychological distress and sleep disturbance among infertile women with intrauterine insemination treatment. *J Clin Nurs* 2014; 23(11-12): 1677-1684. doi: 10.1111/jocn.12306
25. Momenimovahed Z, Taheri S, Tiznobaik A and Salehiniya H. Do the fertility drugs increase the risk of cancer? A review study. *Front Endocrinol (Lausanne)* 2019; 10: 313. doi: 10.3389/fendo.2019.00313
26. Liang C, Chung HF, Dobson AJ, Cade JE, Greenwood DC, Hayashi K, Hardy R, Kuh D, van der Schouw YT, Sandin S, Weiderpass E and Mishra GD. Is there a link between infertility, miscarriage, stillbirth, and premature or early menopause? Results from pooled analyses of 9 cohort studies. *Am J Obstet Gynecol* 2023; 229(1): 47.e1-47.e9. doi: 10.1016/j.ajog.2023.04.009
27. Sharma A and Shrivastava D. Psychological problems related to infertility. *Cureus* 2022; 14(10): e30320. doi: 10.7759/cureus.30320
28. Cousineau TM and Domar AD. Psychological impact of infertility. *Best Pract Res Clin Obstet Gynaecol* 2007; 21(2): 293-308. doi: 10.1016/j.bpobgyn.2006.12.003