Infertile Women's Automatic Negative Thoughts and Coping Strategies: Qualitative Study

Karaca, A.

Faculty of Health Sciences, Duzce University, Turkey

Abstract

Aim: The study aimed to determine infertile women's automatic negative thoughts and their strategies for coping with them.

Method: This descriptive study used qualitative methods. The study was conducted on 15 women who were referred to the infertility polyclinic of a university hospital and who had been diagnosed with primary infertility. Data were collected via a socio-demographic information form and a semi-structured focus group interview (FGI) form and were analysed using the content analysis method.

Results: Three main themes were determined in the study: automatic negative thoughts, situations triggering negative thoughts, and coping with those negative thoughts. The situations that triggered negative thoughts were found to include social environments that reminded the women of babies, news of a pregnancy, loneliness, and menstrual periods. The participants chose avoidance, crying, and carrying out religious practices to cope with their negative thoughts.

Conclusion: The infertile women in the study often had automatic negative thoughts due to the problems caused by infertility. Infertility consultant nurses should evaluate the negative thoughts and depressive moods of infertile women. Cognitive, behavioral, individual, and group therapies are recommended to solve the psychosocial problems caused by infertility.

Keywords: automatic negative thought, coping, infertility, woman

Introduction

Infertility is defined as the inability to get pregnant despite regular sexual intercourse without contraceptive measures for at least one year (Sezgin & Hocaoğlu, 2014). In industrialized countries, 10–15% of couples are reported to have been diagnosed with primary or secondary infertility. This rate increases to 30% and up to 50% in African countries (Ramazanzadeh, Noorbala, Abedinia, & Naghizadeh, 2009). Infertility rates range between 10% and 15% in Turkey (Sezgin & Hocaoğlu, 2014). Due to the emotional problems it causes for individuals and marriages, infertility is regarded as a developmental crisis including individual and spousal relations rather than as a medical situation (Sexton, Byrd, O'Donohue, & Nicole Jacobs, 2010). Along with the burden of the inability to meet social expectations, a married couple who cannot have children have to cope with negative feelings such as inadequacy, guilt, shame, and social stigma (Remennick, 2000). Recent studies have revealed that 50% of infertile women consider this situation to be the most distressful process in their lives, and that they suffer from psychosocial pain similar to the pain experienced by those with a life-threatening disease such as cancer and heart failure (Bayley, Slade, & Lashen, 2009; Herrmann et al., 2011; Kızılkaya Beji, 2009).

In his cognitive model, Beck (2001/2006) emphasized that people's feelings and behavioral reactions related to these feelings result from their comments about certain situations, which generally are revealed as automatic thoughts, and not by the situations themselves. Automatic

thoughts are defined as the automatic positive or negative self-statements that people tell themselves repeatedly in particular situations. However, automatic thoughts are generally negative and include one or more prejudices or logical errors such as mind-reading, overgeneralization, catastrophizing, or arbitrary inference (Türkçapar, 2009). In addition, automatic thoughts are fertile grounds for thematic content. Non-functional automatic thoughts play a basic role in the development of psychological problems (Freeman, Pretzer, Fleming, & Simon, 1990). Beck (1976/2008) believed that many diseases were caused by people's negative thoughts about themselves, their environment, and their future.

Previous studies have reported that anxiety and depression rates were higher among infertile women than among men (Dag, Yigitoglu, Aksakal, & Kavlak, 2015; Oti-Boadi & Oppong Asante, 2017; Ozan & Okumuş, 2017). Psychiatric care professionals, particularly psychiatric nurses, use therapies such as cognitive-based psychotherapy practices, emotionally focused therapy, and supportive therapy since these therapies help them reveal the cause-and-effect relationship between women's perceptions and thoughts, images and events. Studies have proven the effectiveness of these therapy programs (Schmidt, Christensen, & Holstein, 2005). Lee (2003) found a significant difference in anxiety levels, mind and body relaxation, and reduced social isolation between the control group and the infertile individuals in the Nursing Crisis Program that he organized.

Although there is evidence regarding depressive mood during the course of infertility, no sufficient proof has been found linking depression caused by infertility with automatic thoughts. The aim of this study was to determine women's repetitive automatic thoughts arising from the problems of infertility and their coping strategies for these thoughts.

Method

Design

This descriptive study used qualitative methods to determine the automatic negative thoughts of infertile women and their strategies for coping with them. It employed a focus group interview (FGI) to obtain in-depth information about the women's perceptions and their underlying attitudes, beliefs and behaviours.

Sample

The study sample consisted of 15 infertile women who were referred to the infertility polyclinic of a university hospital. The participants were selected from among the women diagnosed with primary infertility who volunteered for the study. Two FGI groups were created, with seven participants in one group and eight participants in the other.

Data collection tools

The data were collected using a socio-demographic information form and a semi-structured FGI form. The socio-demographic information form was prepared by the researcher and included participant information such as age and age of their spouses, occupation, social security status, education level, and details of diagnosis and treatment for infertility. The semi-structured FGI form included questions such as "Do you have anything that you can't help thinking of while you are trying to have a child?", "Can you briefly tell us the contents of these thoughts?", "When do these thoughts most frequently come to your mind?", "What do you do to cope with these thoughts?" and so on.

The FGI Process

The participants were informed about the location and time of the FGI interview, which was held in the lecture hall of the gynaecology polyclinic. The hall had been set up to accommodate the interviews. The participants did not agree to being videotaped during the interview; therefore, the researchers used a voice recorder. The purpose of the study was explained to the participants along with the main rules to be complied with during the discussion process and the predicted time length of the interviews. The FGI was conducted by a moderator and an observer. Each FGI lasted for 1.5 hours until no new concepts or diverse opinions were revealed by the study subjects and all participants had been allowed to speak.

Data analysis

Data were assessed by thematic analysis. Written observational notes and verbal responses for each question in the semi-structured questionnaire were transcribed verbatim. Opinions and notes were crosschecked for compliance with study aims and none were found to be irrelevant. Opinions were categorized according to their semantic similarities and then codes were generated to represent these opinions. The frequency of opinions for each code was indicated. Codes were grouped according to the integrity of meaning and were based on the themes that were generated. To increase the reliability of the data analysis, researchers generated the codes and themes independently. They then presented their findings and the analyses were discussed. To ensure validity of the data, a panel comprising one expert and five study participants assessed the appropriateness of the codes and themes. The final form was generated after taking into consideration the views of the panel (Yildirim & Simsek, 2008).

Results

Demographic characteristics

The participants ages ranged between 22 and 42 years (mean = 30), years of marriage ranged between 1 and 13 years (mean = 7.4), and duration of infertility ranged between one and 13 years (mean = 6.7). Of the women, six had completed primary school, seven had completed middle/high school, and two had completed university. Eight of the women were working and seven were housewives. The causes of infertility were unknown in three women, due to female factors in six women, due to male factors in five women, and due to both female and male factors in one woman.

Themes

Theme 1. Automatic negative thoughts (ANTs)

The participants' answers to the question "Do you have anything that you can't help thinking of while you are trying to have a child?" were categorized by the researcher under the automatic negative thoughts defined in the literature (Table 1).

Tab. 1 **Themes and codes**

THEMES	CODES
Theme 1. Automatic Negative / Repetitive Thoughts	**Mind reading:** Believing that we can read others' thoughts: "He/she did not come" to mean "He/she does not like me", "He/she did not call me" to mean "I am not important to him/her", or "He/she thinks I am a fool". **Catastrophizing**: Always making negative predictions about the future regardless of other possible outcomes. **Overgeneralization:** Drawing conclusions that cover all situations based on a single or a few events. **What if ?:** Always asking "What if…?" to oneself and not being satisfied with his/her own answers such as, "What if I fail in the exam?" "What if I have a car accident" "What if the drug causes an adverse effect?" etc. (Türkçapar 2009).
Theme 2. Situations Triggering Negative Thoughts	▪ Being lonely ▪ Treatment processes ▪ Menstrual periods ▪ Social environments that remind one of babies ▪ Seeing a pregnant woman ▪ Hearing news of a pregnancy (particularly from close friends) ▪ Expectations during/after sexual intercourse ▪ - Being around families that have children
Theme 3. Coping with Negative / Repetitive Thoughts	▪ Crying ▪ Desire to overeat ▪ Desire to be alone ▪ Increased desire to go shopping / walk around ▪ Increased smoking ▪ Sleep problems (insomnia or hypersomnia) ▪ - Increased religious practices

During the FGIs, all participants stated that they had negative thoughts that they could not help thinking during the course of their infertility. The contents of these thoughts included blaming oneself for not having a child, hopelessness, uncertainty, and helplessness. A majority of the participants had more than one ANT, while all of them had *mind-reading* thoughts, more than half of them (9 participants) entertained *catastrophizing* thoughts, about half of them (7 participants) committed *overgeneralization*, and some of them (4 participants) had *What if* ? automatic thoughts.

Mind reading was one of the most frequently observed thoughts and the following two examples illustrate the participants' negative perceptions about themselves:

> *Of course, I have... Thoughts prey on my mind... Sometimes I think I have gone crazy, or I will. People look at me pityingly; they think I am worthless ... (Participant 1)*
>
> *They bring their children with them on purpose. They always tell me what their children do. Why do they do this? To hurt me, of course... (Participant 2).*

The following participant statement indicates the thought of *overgeneralization*:

> *I am afraid. I am so afraid... this trial (treatment) failed. My egg cells grew slowly. This means I will never have a child (Participant 3).*

The following statement is an example of the thought of *What if?*

> *I cannot start the treatment. Why? Because I am afraid like crazy again. What if it fails? What if it cannot take hold in me again? What if I feel regret again? These thoughts come to my mind all the time.*

Theme 2. Situations triggering automatic negative thoughts

This theme analysed the situations that trigger the ANTs and which the participants had difficulty in coping with. The participants' statements showed that these negative thoughts were triggered during assisted-reproductive therapy for almost all of them and included news of a pregnancy or a birth and related social environments in a majority of them (12 people) and the onset of their menstrual cycle in almost all of them. They reported that they had difficulty in coping with these situations.

The following two participant statements indicate how the treatment process and social environments with babies triggered negative thoughts:

> *This is my third treatment trial. I fell into depression when the first trial failed. I did not eat, drink, sleep, or go out of the house. And now, whenever I begin the treatment, the thoughts like "It will not happen again", or "I will fail again" come to my mind, and they are killing me. (Participant 10)*

> *I push myself and go to a mawlid (birth ceremony) for a baby so that no one will be aware of my sorrow, and then I cannot pull myself together for days afterwards. I keep thinking. "Why can't I have a child, too?" or "Why have I become like this?" (Participant 7)*

Theme 3. Coping with negative thoughts

This theme addresses the strategies used by the participants to cope with their ANTs. The participants stated that they mostly resort to crying due to the thoughts that they cannot stop thinking. They also reported that they had sleep problems (10 women), had food cravings (7 women), preferred to be alone (12 women), carried out religious practices (13 women), smoked more (3 women), and went shopping, to the hairdresser or walked around more frequently (5 women).

The following are some participant statements related to this theme:

> *I indulge myself with food at times like this. I eat whatever I can find. I prepare desserts without feeling lazy and then eat them. Look, I have gained too much weight, but I cannot help it. I try to find relief by eating. (Participant 8)*

> *I stay up all night. My eyes hurt due to insomnia, but I cannot shut off the voices in my head and fall asleep. As if all the thoughts were waiting for me to go to bed, they immediately descend on my mind. First a thought comes to my mind, and then others follow it... (Participant 15)*

> *All I can do is to pray, to resort to Allah. I went for Umrah (lesser pilgrimage to Mecca), I prayed a lot. I do not wish for anything from Allah other than a child... I find relief in praying, thank God. Reading Qur'an also restores me. (Participant 6)*

Discussion

This study analysed automatic negative thoughts of infertile women and how they cope with them. The FGI method enabled the researchers to collect in-depth data since it provided an environment where participants felt comfortable sharing their individual experiences. Both groups easily expressed their thoughts and feelings during the FGI. Each participant was able to express herself. Common experiences increased the sharing rate in the groups. The participants stated that they left feeling mentally relieved after the group sessions.

Negative thoughts that come to mind are known as automatic thoughts and they affect one's feelings and behaviour. The most important technique of Beck's cognitive therapy is to address these automatic thoughts and reduce belief in them (Türkçapar, 2009). As shown by the codes identified in the first study theme, the participants often had the ANTs of *mind reading*, *overgeneralization*, *What if?* and *catastrophizing*. This means that a negative thought triggered by any event and other thoughts triggered by it may cause infertile women to have negative emotions. An important factor is that the individuals believe in these thoughts. The participants' increased belief in thoughts such as "I can never get pregnant again" or "They think I am worthless" may lead to an impaired self-perception and hopelessness, followed by depression. The literature also indicates that the rate of developing mental problems is higher among infertile women (Ramazanzadeh et al., 2009).

The second theme showed that these automatic thoughts are triggered by being present in certain social environments and hearing news of a pregnancy. Studies have shown that social withdrawal is a major obstacle to coping and adaptation, especially for women (Lykeridou et al., 2011). From interviews with the women who preferred to be alone, staying away from all reminders of children was thought to be the most important indicator of evasive behaviour in coping with the problem. Although childlessness is a problem of the couple, beliefs of their society and expectations of a woman's role as a mother along with the pressure to meet these expectations can form the basis for a women's social withdrawal (Karaca & Ünsal, 2015). The woman has been seen in the primary role of motherhood for centuries, especially in traditional societies. For this reason, infertile women prefer to stay away from social situations. Previous studies have reported that infertile women preferred to avert these triggers by using the strategies of social withdrawal and avoidance (Gibson & Myers, 2002; Peterson, 2000). In this study, the participants adopted avoidance as a coping strategy, as seen in the third theme. Another trigger seen in this study was the women's menstrual cycle. The menstrual cycle is known as a monthly period of loss in which infertile women have to cope with the emotional difficulties they experience. Menstruation is the most important indicator of non-pregnancy. This cycle, which regularly prepares women for pregnancy and ends with menstruation, may remind the women of their inadequacy and cause them to experience a feeling of loss each month (Peterson, 2000).

Another important finding of this study was that the women's coping strategies were mostly based on adaptation. Strategies such as overeating, sleep problems, and excessive smoking may pose a threat to physical health. Moreover, some studies have shown that religious practices have negative effects on adaptation (Aflakseir & Zarei, 2013). Hall (2006) stated that painful and demanding experiences lead the individual to God and reassurance and that this is an important form of support in alleviating the effect of a crisis. It is seen that religious practice is a common method for dealing with the experience of infertility in traditional societies such as in Turkey (Karaca & Ünsal, 2015; Oti-Boadi & Oppong Asante, 2017; Romeiro, Caldeira, Brady, Timmin, & Hall, 2017). In line with

the findings of this study, it has been reported that the strategies most frequently used by infertile women are emotion-focused coping strategies such as crying and avoidance (Farzadi, Mohammadi-Fosseini, Seyyed-Fatemi, & Alikhah, 2007).

Although it is known that a woman's advancing age and the cause of infertility (especially the female factor) lead to increased stress levels, there was no finding related to these two factors in our study.

Conclusion

The infertile women in the study often had automatic negative thoughts due to problems caused by infertility. The participants frequently had the automatic negative thoughts characterized as *mind reading*, *catastrophizing*, *overgeneralization*, and *What if?* These thoughts were triggered by social environments that reminded them of babies, news of a pregnancy, loneliness, and the menstrual cycle. Participants used the strategies of avoidance, crying, or carrying out religious practices to cope with these thoughts. Infertility consultant nurses should evaluate negative thoughts and depressive moods in infertile women. Cognitive, behavioral, individual and group therapies are recommended to solve the psychosocial problems caused by infertility.

Ethical Aspects and Conflict of Interest

The study was conducted in accordance with the Declaration of Helsinki for experiments involving humans. Written consent was obtained from the administration of the university hospital where the study was conducted, and approval was obtained from the committee for non-invasive ethics of the hospital.

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Dr. Aysel Karaca
Duzce University, Faculty of Health Sciences, Turkey
ayselkaraca@duzce.edu.tr