Electronic Physician (ISSN: 2008-5842) http://www.ephysician.ir
April-June 2019, Volume: 11, Issue: 2, Pages: 7544-7551, DOI: http://dx.doi.org/10.19082/7544

Perceptions of Infertility among women in United Arab Emirates: a qualitative study

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Type of article: Original

Abstract

Background: Bearing a child is one of the most important motivations for human beings with regard to the continuation of life. People's perception of infertility is contingent upon various diverse cultural factors.

Objective: This study aims to explore the perceptions of infertility in infertile women in the United Arab Emirates.

Methods: This qualitative study was carried out on fourteen infertile women who were referred to medicine and health science clinical services, in Al Ain, in the United Arab Emirates. Data were collected through semi-structured interviews. After the interviews were recorded, the data were analyzed using conventional content analysis method.

Results: After analyzing the data, four themes including "fulfillment of dreams about being pregnant", "marital instability", "loss of self-esteem" and "spirituality is the way for reaching calmness" were extracted.

Conclusion: The findings of this study showed that infertile women face many problems that affect their feelings and relationships in everyday life. It is thus recommended that counseling and midwifery centers be established in all infertility clinics, and experienced midwives who are familiar with reproductive health concepts guide and support infertile women as well as respond to their questions.

Keywords: Female Infertility, United Arab Emirates, Qualitative approach

Note: This manuscript has been organized using the Consolidated Criteria for Reporting Qualitative Studies (COREQ): 32-item checklist, developed from: Tong A, Sainsbury P, 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):349-57, DOI: 10.1093/intqhc/mzm042, PubMed PMID: 17872937

Abbreviations Acronyms:
ARTs: Assisted Reproductive Techniques; **UAE:** United Arab Emirates, **WHO:** World Health Organization

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Received: February 23, 2019, Accepted: April 06, 2019, Published: June 2019
iThenticate screening: April 06, 2019, English editing: April 20, 2019, Quality control: April 22, 2019
This article has been reviewed / commented by three experts
Ethics approval: Tehran University of Medical Sciences (Ref: IR.TUMS.FNM.REC.1396.3226)

1. Introduction

Fertility is of high value in many cultures and to bear a child is one of the most important human stimuli for the continuation of life (1). Despite variations in attitudes toward sexual issues in recent years, fertility still preserves its importance in human minds and a child is one of the main determinants of the maintenance of marital life (2). The World Health Organization (WHO) defines infertility as having failed to achieve clinical pregnancy after twelve months of unprotected sex (3). A continual failure to conceive can lead to a destructive emotional experience. The WHO estimates that every year around 80 million couples experience infertility (4). In the United States, every year, approximately 1.3 million couples receive medical counseling on infertility (5). Infertility is one of the most damaging conditions of human life and can lead to serious psychological problems for the affected population (6). Today, treatment of infertility is a worldwide demand. The physical, psychological, and financial challenges of the treatment process of assisted reproductive techniques (ARTs) is a complex issue, and infertility problems can lead to depression in the late second and third decades of life for many people (7). Trying to conceive requires costly and frustrating medical interventions, and hesitation and hopelessness during the treatment process can disrupt a couple's relationship (8). Although various studies have shown the importance of the association between physical and psychological issues, and infertility, several aspects are still ambiguous (9).

Understanding the challenge of infertility depends on various cultural factors (10). Although men and women are almost equally involved in the etiology of infertility (10), due to social prejudices, infertility is considered a female problem; as a result, women are more likely to face family and social discrimination as compared to men (11). Although the fertility rate in the United Arab Emirates (UAE) has declined from 3.29 to 2.36 per women between 2002 and 2014, fertility and pregnancy are still considered to be important (12, 13). According to statistics from the Ministry of Health in the UAE with regard to infertility problems, 20% of UAE couples experience infertility at least once in their lifetime (14). Considering that fertility is significantly important for Arab women culturally and socially, the study of infertility is important in the cultural and social contexts of Arabic countries including the UAE. Therefore, the aim of the study was to explain the understanding and experience of infertile women in an Arab culture and, though limited, take a step toward improving women's health and quality of life.

2. Material and Methods

2.1. Research design and participants

This study aims to explore the perceptions of infertility in infertile women in the United Arab Emirates (UAE). Data were collected through semi-structured and face-to-face interviews and analyzed by conventional content analysis approach on fourteen infertile women who were referred to the Clinic of Obstetrics and Gynecology of the United Arab Emirates in Al-Ain city. In this study, fourteen Emirati women with primary infertility were selected using purposive sampling approach sampling. The data collection of this study was conducted between July and October 2017. The study consisted of Emirati women with female factor-related primary infertility for at least one year and who were willing to participate.

2.2. Interview and data collection

The main method of data collection was semi-structured interviews; samples were completed after twelve interviews and two further interviews were conducted to ensure data saturation. At the beginning of the interview, each participant answered questions about age, employment status, educational level, place of residence, duration of marriage (number of years), and duration of infertility. Thereafter, they were asked explorative questions such as "How did you feel at the first moment when you realized you could not conceive?" and so on. Interviews were conducted by the first author and recorded by voice recorder with the permission of participants. We also wrote field notes after each interview and immediately after the completion of each interview, it was played several times, written down verbatim, coded and categorized. After encoding an interview, the next one was conducted. The duration of interviews was between 50 and 80 minutes (65 minutes on an average). Interviews took place in an appropriate venue in an atmosphere that was completely comfortable for participants (for example, a mother's home or a coffee shop), and a relationship based on mutual trust was established. The number of sessions and duration of each interview varied according to the content and conditions of each participant and depended on various factors such as time, participant's willingness, tolerance, mental and physical ability, amount of information from the participant, and environmental conditions.

2.3. Data Analysis

The data were analyzed by a conventional content analysis approach and processed using the Graneheim and Lundman method, as follows:

1) Transcribing the interviews verbatim and reading through several times to obtain a sense of the whole.
2) Dividing the text into meaning units that were condensed.
3) Abstracting the condensed meaning units and labelling with codes.
4) Sorting codes into sub-categories and categories based on comparisons regarding their similarities and differences.
5) Formulating themes as the expression of the latent content of the text (15).

Extracted codes were managed through software MAXQDA10 for the organization of text data. To ensure correctness and accuracy of data, the Lincoln and Guba criteria were used for assessing credibility, dependability, conformability, and transferability (16).

2.4. Conformability and data transferability

To verify conformability, the views of participants and researchers were rechecked. A number of participants were asked to read the text of their interview and the extracted codes, to ascertain whether these matched their experiences. With regard to reviews by researchers, interviews and all stages of analysis were investigated by consulting and collaborating with all members of the research team. Data transferability was checked through a complete description of the characteristics of participants, method of data collection and analysis, and providing examples of interviews to allow others to conduct similar studies.

2.5. Ethical considerations

After approval from the Ethics Committee of Tehran University of Medical Sciences (Ref: IR.TUMS.FNM.REC.1396.3226) supervised by the Faculty of Medicine at the United Arab Emirates University of Medical Sciences, samples were selected purposefully and with the greatest variety. All participants were aware of the objectives and methods of the study, and signed the written informed consent.

3. Results

3.1. General findings

In this study, fourteen married women who met the inclusion criteria were eligible for interviews. The age range of participants was 28-42 years, duration of marriage was 3–14 years, and duration of infertility was 2-13 years. Table 1 shows other demographic characteristics. The results of the process of data analysis were presented by analyzing fifteen interviews with fourteen participants. Finally, in this study, four themes and eight sub-themes were extracted to indicate the understanding of infertility from the perspective of infertile women (Table 2).

3.2. Fulfillment of dreams about being pregnant

One of the extracted themes was fulfillment of dreams about being pregnant, which had two sub-themes: “motherhood dream” and “trying to conceive”.

3.2.1. *Motherhood dream*

Infertile women imagine themselves being pregnant and experiencing motherhood. In their dreams, they imagine hugging and talking to their child. Participant 3 said, “Sometimes I think I’m talking to my baby and cuddling it; especially when I see a baby somewhere, I feel this more.” Participant 14 said, “In crowded places, I imagine kissing my kids and hugging them; or when I go to the market and see baby clothes, I pause and imagine my children in these clothes.”

3.2.2. *Trying to get pregnant*

Participant 5 said, “I know that science has progressed now and everyone like me can become a mother.” Participant 6 said, “In the beginning, I was expecting delayed menses to go for a pregnancy test like all married women, but it never happened; so, I searched for a solution to this issue very quickly.”

3.3. Marital instability

Another theme was marital instability, which had two sub-themes: “diminished relationship between couples” and “fear of remarriage”.

3.3.1. *Diminished relationship between couples*

Female infertility led to friction between couples as participants felt that their spouse did not understand them. Participant 8 said, “He does not understand me at all; he must understand that I’m also under great pressure and I would also love to have a baby.”

3.3.2. *Fear of remarriage*

Infertility leads to pessimism regarding the spouse. Participant 6 said, “I became pessimistic about my husband. I feel he has remarried or intends to remarry.” Participant 13 said, “I feel that my husband’s behavior has changed

because of my infertility and my marital life is breaking apart." Participant 4 said, "If he marries another woman, I will not stay with him; I will go to my mother's. He keeps saying he will not discriminate against me and will only marry to have a child. But, my mother has the right to see her grandchildren. I cannot be selfish and not fulfill this wish. I did not discuss this much."

Table 1. Demographic variables of research participants

no.	Age (year)	Educational level	Duration of marriage (year)	Duration of infertility (year)	Occupation
1	32	Diploma	5	4	Employee
2	37	Bachelor	3	2	Employee
3	42	Bachelor	13	12	Employee
4	28	Bachelor	3	2	housewife
5	33	Bachelor	4	3	housewife
6	38	Diploma	7	6	Employee
7	35	Elementary	11	10	housewife
8	34	Diploma	6	5	Employee
9	34	Bachelor	7	6	housewife
10	33	Bachelor	14	12	Employee
11	30	Diploma	7	5	Employee
12	32	Diploma	8	6	Employee
13	38	Diploma	5	3	housewife
14	35	Diploma	4	3	Employee

Table 2. Themes and sub-themes derived from data analysis

Themes	Sub-themes
Fulfillment of dreams about being pregnant	Motherhood dream
	Trying to get pregnant
Marital instability	Diminished relationship between couples
	Fear of remarriage
Loss of self-esteem	Damaged female identity
	Humiliation
Spirituality is the way for reaching calmness	Subjection to God
	Acceptance of fate

3.4. Loss of self-esteem

A third theme was loss of self-esteem, which had two sub-themes: "damaged female identity" and "humiliation".

3.4.1. Damaged female identity

Infertility incites the woman to imagine herself to be incomplete and defective, or believe that others may have preconceptions about her. Participant 7 said, "A woman must be able to have a child to reach development and completion. I cannot have a child so I am not a perfect woman. This is a reality."

3.4.2. Humiliation

Participant 5 said, "Sometimes I felt like I was useless. I felt disabled… that something was missing in my life."

3.5. Spirituality is the way for reaching calmness

The final theme was Spirituality is the way for reaching calmness, which had two sub-themes: "subjection to God" and "acceptance of fate".

3.5.1. Subjection to God

This reliance on God was noted in the conversation of most participants. Participant 11 said, "We have trusted God completely to give us a child."

3.5.2. Acceptance of fate

Participant 2 said, "We should not complain about God's wisdom and fate." Participant 3 said, "It is God… He plans and I will not object to His wisdom. He knows better what is in my heart."

4. Discussion

The purpose of this study was to investigate infertility from the perspective of infertile women in the UAE. The results showed that infertility affected various aspects of women's lives. These women, by undertaking the often difficult process of infertility treatment, experienced various feelings including realizing their dream of motherhood, marital instability, loss of self-esteem, and spirituality is the way for reaching calmness. A young girl plays the role of a mother in childhood games. Over time, she often imagines herself as a mother with her children. When she gets married, she waits for the moment to embrace her child. Infertility undermines these aspirations and dreams. To fulfill these dreams, women adopt the complicated process of infertility treatment. The struggle to achieve pregnancy and missing motherhood has also been reported in other qualitative studies in Iran and Jordan (17, 18); one study showed that women are more affected by infertility as compared to men and treatment of infertility is one of the most difficult experiences in a woman's life (19).

One of the themes found in this study was marital instability. Women were upset about emotionally distant spouses and the emotional neglect they experienced from their spouses. Threatened relationship harmony in the marriage has also been reported in Chinese context. Infertility was seen as very likely to result in marital instability and threaten marital bonds in the study of Yao, Chan and Chan (20). In a study by Ranjbar et al., it was found that women who have become pregnant through ARTs expressed emotional safety and security in marital life as the most important achievement of pregnancy, suggesting that infertility caused instability in their marital life (21). In fact, obtaining the satisfaction of spouses was one of the reasons women tried to become pregnant. Various studies have shown that pregnant women are always taken care of and respected by their families and society; in contrast, infertility can result in stress and create pressure on married couples, leading to divorce in many Arab societies (22-24). Stress, depression, and social and marital instability have also been reported by another study in Saudi Arabia (25). In an Egyptian study, Inhorn concluded that due to the patriarchal structure of Egyptian society, Egyptian women who were married to infertile men experienced great blame and grievances from their spouses, relatives, and neighbors; in cases where the cause of infertility was proven as the male factor, women pursued treatment because of huge psychological and social pressures, while men denied their problem, avoiding all forms of diagnosis and treatment of infertility, and blaming their wives instead (26). In many societies such as Nigeria, Mozambique, Zambia, and Bangladesh, infertile women are not allowed to participate in many social ceremonies and practices. People consider them to be evil. Infertile women face domestic violence and abuse by the spouse and his family, and the spouse is allowed to leave the woman and remarry (27). It has also been shown that female infertility challenges a woman's individual and social merits, such as the value of maternal and spousal roles, and disturbs the significance and aim of marriage, and continuation of life. Doubts and threats due to infertility including grief, denial, anger, anxiety, depression, and disturbance in self-esteem and body image have an impact on women's behavior, increasing feelings of embarrassment, guilt, blame, worry, and various factors associated with physical and emotional violence, and conflict; all this can endanger the mental health of women (28). In Arab culture, family formation has a close relationship with childbearing and is usually one of the reasons for marriage. Given the significance of infertility in the Arab community, families, especially first-degree relatives, expect couples to have children shortly after marriage, regardless of whether they are prepared for a new life or not. On the one hand, the woman's family fears their daughter's possible infertility, the consequent disappointment of the man's family, and remarriage of their son-in-law. On the other hand, the man's family is concerned with upholding their family name and honor, increasing the number of their family members, and the desire to have a grandchild. In this community, women are often blamed even if the cause of infertility is not the female factor but the male factor; women remain silent and do not reveal this secret, and this could lead to divorce. A woman can be forced to return to her father's family; she may even be blamed at the father's house, or have to accept the remarriage of her husband (who is unable to become a father) and a second wife living in the same home. Having a child is considered to be the source of a woman's power in the family and in society for an Arab woman; this is because infertility is usually viewed as a female problem and infertile women are more likely to face family and social problems as compared to men. A study in 2015 showed that infertile women experience some or all forms of sexual, emotional, psychological, social, or marital violence. The severity of violence depends on the nature of fertility problems and the position of the infertile woman in her husband's home. In such a culture, fertility problems are related to social and cultural stigma in society. Women who are younger or have been married for less than 15 years have more hope for motherhood. Due to economic problems and limited family support, many infertile women have no access to fertility technology (29). Therefore, infertile women require specialized support for their social, emotional, and marital problems; a specialized team including a midwife, psychiatrist, and social worker with experience in the field of infertility should provide such services (30).

Another theme in this study was the loss of self-esteem, which included sub-themes of identity damage and feeling humiliated. Infertile women expressed a sense of feeling imperfect or being perceived as incomplete by their spouses in their interviews. In a study by Hamdan on Arab women, cultural beliefs regarding infertility caused the feelings of shame and incompleteness (31). In the study by Ranjbar et al., it was found that pregnancy, after infertility, returned self-confidence to these women; they became the focus of attention in the family again and did not experience any more limitations (21).

Spirituality was one of the other themes in this study with two sub-themes: "subjection to God" and "acceptance of fate". The feeling that kept infertile women strong and resolute was reliance on God; they could cope with their infertility and not succumb to disappointment by subjecting themselves to God. One of the coping strategies to combat infertility is spirituality, which increases the ability of couples to overcome the childlessness and suffering (32). Infertility experiences require mental support for couples, especially to assess their spiritual needs and promote strategies to deal with problems. Effective comprehensive care should support couples in dealing with infertility, and understanding the implications of life and health in these conditions. Beliefs, values, traditions, religion, relatives, and many other factors can affect the quality of life of infertile couples. An individual's perception of infertility is integrated into daily life as a combination of physical, social, emotional, and cognitive activities (33, 34).

5. Conclusions

The findings of this study showed that infertile women face many problems that affect their emotions and relationships in everyday life. After a woman gets married, she tries to become pregnant for a while. If she fails, she sees herself as incomplete and defeated, and tries to repair her damaged identity. The woman looks toward spirituality and faith in God to fulfill her dream of motherhood and prevent the instability of her marital life. It can be claimed that many women in the Arab community are struggling with this problem; therefore, support for infertile women requires special public attention. It is recommended that counseling for infertile women be established in all infertility treatment centers, and midwifery services and midwives experienced in reproductive health guide all infertile women and respond to their diverse questions. Also, education of families can greatly reduce a woman's mental burden. A woman is the basis and foundation of the family and her strength depends on her physical and mental peace and health. Generalizability and replicability are some of limitations of the qualitative research. Therefore, we used purposive sampling method and tried to introduce our context for readers. Further qualitative studies are still needed to care for infertile women in the UAE. The inclusion of both Arab men and women and involving several specialized infertility clinics from different cities in UAE are also recommended in future studies.

Acknowledgments:
This study is funded by a grant from Tehran University of Medical Sciences (IR.TUMS.FNM.REC.1396.3226). We would like to acknowledge all the centers for their support and assistance with this research and all the women who shared their experiences with us.

Conflict of Interest:
There is no conflict of interest to be declared.

Authors' contributions:
All authors contributed to this project and article equally. All authors read and approved the final manuscript.

References:

1) Ryan KJ, Berkowitz RS, Barbieri RL, Dunaif A. Kistner's Gynecology and Women's Health. 7th Edition. ISBN-10: 0323002013.
2) Mohammadi F. Investigating the stress causing parameters and resolving methods for infertile females in Alzahra Clinical Center of Tabriz M. Sc: Thesis, Tabriz University of Medical Sciences; 1998.
3) WHO. Multiple definitions of infertility 2016. 2016. Available from: http://www.who.int/reproductivehealth/topics/infertility/multiple-definitions/en/.
4) Khodakarami N, Hashemi S, Seddigh S, Hamdiyeh M, Taheripanah R. Life experience with infertility; a phenomenological study. Journal of Reproduction & Infertility. 2010; 10(4).
5) Cousineau TM, 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. PMID: 17241818.

6) Sadock BJ, Sadock VA. Kaplan and Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry: Lippincott Williams & Wilkins; 2011.
7) Monga M, Alexandrescu B, Katz SE, Stein M, Ganiats T. Impact of infertility on quality of life, marital adjustment, and sexual function. Urology. 2004; 63(1): 126-30. doi: 10.1016/j.urology.2003.09.015. PMID: 14751363, PMCID: PMC14751363.
8) Bahrami N, Sattarzadeh N, Koochaksariie FR, Ghojazadeh M. Comparing depression and sexual satisfaction in fertile and infertile couples. Journal of Reproduction & Infertility. 2007; 8(1).
9) Cwikel J, Gidron Y, Sheiner E. Psychological interactions with infertility among women. Eur J Obstet Gynecol Reprod Biol. 2004; 117(2): 126-31. doi: 10.1016/j.ejogrb.2004.05.004. PMID: 15541845, PMCID: PMC15541845.
10) Evens E. A global perspective on infertility: an under recognized public health issue. The University of North Carolina at Chapel Hill. 2004; 18: 1-42.
11) Ahmari Tehran H, Tashi S, Mehran N, Eskandari N, Dadkhah Tehrani T. Emotional experiences in surrogate mothers: A qualitative study. Iran J Reprod Med. 2014; 12(7): 471-80. PMID: 25114669, PMCID: PMC4126251.
12) CIA. CIA World Factbook. Washington, DC: United States Central Intelligence Agency (CIA). 2014.
13) WHO. United Arab Emirates 2015. Available from: http://www.who.int/countries/are/en/.
14) Emirates News Agency 2015. Available from: http://wam.ae/en/details/1395297417692.
15) Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse education today. 2004; 24(2): 105-12. doi: 10.1016/j.nedt.2003.10.001. PMID: 14769454.
16) Guba EG. Criteria for assessing the trustworthiness of naturalistic inquiries. ECTJ. 1981; 29(2): 75.
17) Ranjbar F, Behboodi-Moghadam Z, Borimnejad L, Ghaffari SR, Akhondi MM. Experiences of infertile women seeking assisted pregnancy in Iran: a qualitative study. Journal of Reproduction & Infertility. 2015; 16(4): 221.
18) Obeidat HM, Hamlan AM, Callister LC. Missing motherhood: Jordanian women's experiences with infertility. Advances in Psychiatry. 2014; 2014. doi: 10.1155/2014/241075.
19) Aroian KJ, Katz A, Kulwicki A. Recruiting and retaining Arab Muslim mothers and children for research. Journal of Nursing Scholarship. 2006; 38(3): 255-61. doi: doi: 10.1111/j.1547-5069.2006.00111.x. PMID: 17044343, PMCID: PMC1633727.
20) Yao H, Chan CHY, Chan CLW. Childbearing importance: A qualitative study of women with infertility in China. Research in nursing & health. 2018; 41(1): 69-77. doi: 10.1002/nur.21846. PMID: 29193167.
21) Ranjbar F, Akhondi MM, Borimnejad L, Ghaffari SR, Behboodi-Moghadam Z. Paradox of Modern Pregnancy: A Phenomenological Study of Women's Lived Experiences from Assisted Pregnancy. J Pregnancy. 2015; 2015: 543210. doi: 10.1155/2015/543210. PMID: 26064687, PMCID: PMC4433712.
22) Abou-Rabia NM, Hammouda GA, Raafat MH, Nagiub O. Developmental changes of internal anal sphincter in guinea pigs: a histological and immunohistochemical study. Egyptian Journal of Histology. 2013; 36(2): 418-26. doi: 10.1097/01.EHX.0000429198.04371.39.
23) Demirtas A, Akinsal EC, Ekmekcioglu O. Parental consanguinity in infertile males. Open Journal of Urology. 2013; 3(02): 53. doi: 10.4236/oju.2013.32010.
24) Moghadam MHB, Aminian AH, Abdoli AM, Seighal N, Falahzadeh H, Ghasemi N. Evaluation of the general health of the infertile couples. Iranian journal of reproductive medicine. 2011; 9(4): 309.
25) Abolfotouh M, Salam M, Alturaif D, Suliman W, Al-Essa N, Al-Issa H, et al. Predictors of quality of life and glycemic control among Saudi adults with diabetes. International Journal of Medicne and Medical Sciences. 2013; 46: 1360-70.
26) Inhorn MC. Global infertility and the globalization of new reproductive technologies: illustrations from Egypt. Social science & medicine. 2003; 56(9): 1837-51. doi: 10.1016/S0277-9536(02)00208-3.
27) Van Balen F, Gerrits T. Quality of infertility care in poor-resource areas and the introduction of new reproductive technologies. Human Reproduction. 2001; 16(2): 215-9. doi: 10.1093/humrep/16.2.215. PMID: 11157809.
28) Besharat MA, Hoseinzadeh Bazargani R. A comparative study of fertile and infertile women's mental health and sexual problems. Iranian Journal of Psychiatry and Clinical Psychology. 2006; 12(2): 146-53.
29) Bista B. Lived Experience of Infertility among Community Dwelling Infertile Women. Journal of Nobel Medical College. 2015; 4(1): 46-56. doi: 10.3126/jonmc.v4i1.13303.

30) Morshed-Behbahani B, Mossalanejad L, Shahsavari S, Dastpak M. The experiences of infertile women on assistant reproductive treatments: a phenomenological study. Iranian Red Crescent Medical Journal. 2012; 14(6): 382-3. PMID: 22924119, PMCID: PMC3420031.
31) Hamdan Z. Perceptions of Infertility among Arab Women in the US. 2016.
32) Romeiro J, Caldeira S. Spiritual aspects of living with infertility: A synthesis of qualitative studies. J Clin Nurs. 2017; 26(23-24): 3917-35. doi: 10.1111/jocn.13813. PMID: 28329409.
33) Bell K. Constructions of "infertility" and some lived experiences of involuntary childlessness. Affilia. 2013; 28(3): 284-95. doi: 10.1177/0886109913495726.
34) Greil AL, Slauson‐Blevins K, McQuillan J. The experience of infertility: a review of recent literature. Sociol Health Illn. 2010; 32(1): 140-62. doi: 10.1111/j.1467-9566.2009.01213.x. PMID: 20003036, PMCID: PMC3383794.