

# 4'TH INTERNATIONAL CONFERENCE ON HEALTH PRACTISE AND RESEARCH





Journal homepage: https://ojs.stikestelogorejo.ac.id/index.php/ichpr

# **Experience of Married Couples With Infertility: A Scoping Review**

# Khoirotul Umul Latifah<sup>1</sup>

<sup>a</sup>Universitas Aisyiyah Yogyakarta, Daerah Istimewa Yogyakarta, Indonesia

#### **ARTICLE INFO**

Article history:

Received 00 January 2023 Accepted 27 February 2023

Keywords:

Experience, Infertility, Psychological, Reproductive Problems

#### ABSTRACT

Infertility is a disease of the male or female reproductive system characterized by failure to achieve pregnancy after 12 months or more of having regular unprotected sexual intercourse. This causes medical and psychosocial problems in infertile couples. The scoping review carried out aims to find out how the experience of married couples with infertility events using PRISMA-ScR. Search for articles starting from January 2023 - February 2023 with the inclusion criteria of original articles, articles published in English, articles published from 2013-2022, articles that discuss the experiences of married couples experiencing infertility, free full text, open access. Exclusion criteria included review articles, opinion articles, organizational documents/guidelines. The databases used were PubMed, EBSCO, Willey Online Library and Science Direct with a total of 13 articles reviewed. Three main themes were found, namely the impact of infertility on couples, factors affecting the care of infertile couples and coping strategies for infertile couples. The conclusion of this study is that couples who experience infertility experience negative social stigma, experience psychological disorders and physical and spiritual impacts. Infertile couples also experience obstacles in medical treatment. In addition, the best coping strategy for infertility is the support of your partner and those closest to you.

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#### INTRODUCTION

Infertility is a global health problem that affects millions of people of reproductive age worldwide. World Health Organization 2020 data shows that between 48 million couples and 186 million individuals experience infertility. According to the World Health Organization (WHO) infertility is a disease of the male or female reproductive system characterized by failure to achieve pregnancy after 12 months or more of having regular sexual intercourse without using protection. Primary infertility is the

inability to achieve pregnancy, while secondary infertility is the inability to achieve pregnancy after previous successful conception (WHO, 2020)

In Indonesia, infertility affects 10-15% of couples of reproductive age (Harzif et al., 2019). There are around 21.3% of individuals who experience infertile problems that affect the lives of their partners. Apart from medical problems, infertility in Indonesia raises psychosocial problems (S. Ali et al., 2011; T. S. Ali & Sami, 2007; Amiri et al., 2015). Medical problems related to diagnosis and treatment, namely for the

treatment of infertility requires a high enough cost so that it becomes a major obstacle even for people with high incomes (Mosalanejad et al., 2013). Meanwhile, psychosocial problems include exclusion, verbal and physical abuse, divorce and stigma which have an impact on mental health problems (Anokye et al., 2017).

Various studies have shown that couples who experience the impact of infertility make men or women have various needs such as emotional support, professional medical services, psychosocial services, partner-centered interventions and patient-centered approaches (Fahami et al., 2010; Khodakarami et al., 2009; van Empel et al., 2010). Given the diversity of needs and problems of infertile patients, it is necessary to identify and address the needs of infertile patients along with medical care. The provision of fertility care must be based on the needs and expectations of the patient (patient centered fertility care) as one of the patient's fundamental rights (Zargham-Boroujeni et al., 2014).

Fertility treatment centered on infertile couples not only meets the needs and expectations of patients, but also has significant clinical benefits such as improving the patient's quality of life and emotional health and reducing psychological distress (Dancet et al., 2011; Fahami et al., 2010). In addition, patient-centered infertility treatment, especially for both partners, can increase the success of infertility treatment(Gameiro et al., 2013; Mesquita da Silva et al., 2020). In this regard, health professionals are in a prime position to provide support and feelings of empathy to encourage infertile couples to share their experiences, needs and concerns.

In Indonesia, treatment of infertility problems cannot be facilitated by the government because the costs are quite expensive. Meanwhile, in several countries, such as Hungary and China, infertility treatment has been facilitated by the government, because these countries think that fertility is of "strategic importance" (Everett, 2020; Magramo, 2023). Although infertility treatment is not covered by the government, health services in Indonesia already have the facilities needed to treat infertility using

Assisted Reproductive Technology (ART). ART includes all fertility treatments that involve eggs or embryos. In general, ART procedures involve surgically removing eggs from a woman's ovaries, combining them with sperm in a laboratory, and returning them to the woman's body or donating them to another woman. ART does not include treatments in which only sperm is handled (i.e., intrauterine insemination or artificial insemination) or procedures in which a woman takes medication solely to stimulate egg production with no intention of harvesting the eggs (Centers for Disease Control, 2019).

In addition to the problem of cost and limited infertility services, the ART procedure has been considered as one of the problems facing treatment. This is because the TRB treatment method causes partners to feel emotional and physical burden as well as high levels of stress and depression, especially in women (Dancet et al., 2011; Ebrahimzadeh Zagami et al., 2022; Hämmerli et al., 2010; Regeer et al., 2021). Infertility and its treatment are considered a significant medical problem and affect the lives of infertile couples (Aarts et al., 2011; Yaghmaei et al., 2009).

The negative impacts of life problems in infertile couples are psychosocial problems, low self-esteem, depression, sexual problems, feelings of shame or guilt, lack of communication with friends and family members and work challenges. This condition can worsen in different socio-cultural contexts, especially when concurrent with the medical, emotional and communicative challenges triggered by infertility More severe conditions (Burnett, 2009). experienced by most infertile women because of the tendency of society to blame women for failure to conceive (Bharadwaj, 2002). As a result, the accepted norm is that infertility in a couple gives the stigma of a infertile wife and infertile husband. For this reason, men will easily leave or divorce their partners. Until a community of second-line fighters emerged which was generally dominated by women.

Given the importance of parenthood and the urgency of infertility, it is not surprising that infertility is considered a significant medical problem and cause of psychosocial disorders (Leke et al., 2004; Sundby,

1997). Previous research has focused more on women such as research conducted by (Donkor et al., 2017; Kohan et al., 2015) which reviews the problem of infertility from the perspective of women who are not partners. In addition, several studies conducted by (Imeson & McMurray, 1996; Khodakarami et al., 2010) are more directed to the experience of couples who do treatment. Based on this, this research was conducted to explore the experiences of married couples with infertility. So that it can be an evidence-based guide in handling infertility problems. Therefore researchers want to know a more complete picture of "How is the experience of a married couple with infertility?"

## **METHODS**

The framework used in this scoping review uses the Preferred Reporting Items for Systematic Reviews and Meta-Analyse for Scoping Review (PRISMA-ScR) rules (Tricco et al., 2018). The PRISMA-ScR flowchart diagram which has been adapted, includes the following steps:

# **Identify Relevant Articles**

The search strategy was carried out between authors by keywords determining and inclusion-exclusion criteria. Article inclusion criteria include original articles, articles published in English, articles published from 2013-2022, articles that discuss the experiences of married couples experiencing infertility, free full text, open access. Exclusion criteria include review/ comment articles, opinion articles/ documents/ organizational guidelines. The search was carried out between December 2022-January 2023. The databases used were PubMed, EBSCO and Science Direct as well as two gray literature, namely the World Health Organization and Research Rabbit. The keywords used (Infertile couples) AND (infertility) AND (experience) AND (qualitative). With the following framework as follows:

**Tabel.1** Framework PEOS

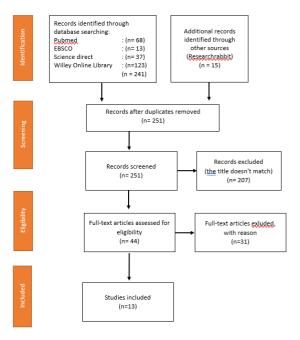
Population	Exposure	Outcome	Study
Infertile	Infertility	Experience	Qualitative
Couple			

### Screening Based on Title and Abstract

In searching 4 databases and Research Rabbit, a total of 256 articles were found, then several articles were double or duplicate, namely 5 articles. Of the 251 articles, screening was carried out based on title and abstract related to the experience of husband and wife with infertile events, 44 articles and 207 irrelevant ones. An identified full text search was carried out to filter the contents of the articles based on inclusion and exclusion criteria, population suitability, method, and the results obtained 13 articles that will be used for scoping review and 31 articles are not used because they are not appropriate.

#### **Article Selection**

The researcher screened the articles by reading the articles as a whole and obtained the results of 13 articles used in conducting the scoping review. The data collection steps are presented in the following figure:



**Figure 1.** PRISMA-ScR flowchart of study selection (adapted from Tricco et al., 2018)

# **Charting Data**

Data were independently extracted by researchers and the following information was considered for each article: (1) title, author, year of publication and country; (2) research methods and instruments; (3) the main results obtained. The charting data results are attached.

### RESULT AND DISCUSSION

#### Result

#### **Article characteristics**

There are 5 articles from Iran, 4 articles from Ghana and 1 article each from Canada, Hong Kong, Nigeria and China. In addition, 3 articles come from developed countries and 11 articles come from developing countries. Based on the type of research, there are 9 articles using qualitative research methods and 3 articles using mix-methods and 1 article using quantitative.

# **Impact of Infertility on Couples (n=11)**

The impact of infertility on partners is related to the physical impact experienced by women who carry out treatment. The social impact is the negative stigma that infertile couples receive. The spiritual impact is related to the belief in having children. The psychological impact is related to the anxiety of stress and pressure faced by infertile couples, as well as the impact that affects the quality of the relationship between husband and wife.

# Factors Affecting Treatment of Infertile Couples (n=5)

There are two factors that affect the treatment of infertile couples, namely factors that influence success and factors that hinder the success of treatment.

#### **Infertile Couple Coping Strategies (n=9)**

Coping strategies carried out by infertile couples can be in the form of support from their surroundings, partner and family support as well as spiritually.

#### Discussion

Infertile women undergoing IVF treatment experience various physical pains during the treatment process, the pain comes from IVF procedures such as daily injections, intrusion procedures, and side effects of drugs. Injections required for conventional treatment protocols. One of the major physical challenges for women undergoing IVF is the effects of the fertility drugs which are needed to stimulate

ovulation, help the eggs mature, prevent premature ovulation, and help the lining of the uterus prepare to receive the fertilized embryo or embryos. These are synthetic hormones, and they can make you feel like you have intense PMS. Mood swings, hot flashes and temporary weight gain/bloating are common, as are headaches, breast tenderness and nausea. The injectable drugs have to be, well, injected, so you have to get stuck in different spots depending on which drugs are prescribed. Some women will feel skin irritation at the injection site (Win, 2014).

The stigma that infertile women receive includes being considered as birth control because the use of family planning is more determined by women, having higher education or career women which has an impact on delaying pregnancy (A8, A12). (Sedlander et al., 2021) said that there is no relationship between contraception and infertility. Contraceptives are designed to temporarily delay pregnancy and prevent pregnancy. However, if you stop using it, the fertility rate will return to normal. Women with infertility often get verbal and even physical violence from their families and communities. Rejection of infertile women also occurs in society, both in leadership and participation in society. People assume that infertile women are inappropriate in an environment where the majority have children (A1, A6, A10, A12). This is in line with research conducted by (Hasanpoor-Azghdy et al., 2015) that the consequences received by infertile women are violence which includes psychological violence and physical violence in the household, verbal violence, social isolation including avoiding certain people or social events. and self-isolation from family and friends, social exclusion. Other research also states that infertile women face social stigma that threatens their psychosocial well-being and self-esteem (Taebi et al., 2021). Meanwhile, men often get verbal violence. Verbal abuse resulted in social isolation of childless men for fear of being publicly humiliated and humiliated. In addition, the social stigma received by men with infertility assumes that men who do not have children tend to harm children (A1,A6). This is in line with research conducted by (Dyer et al., 2004) men who do not have children tend to be verbally abused and lose their social status in society. Other research also states that infertile men experience a loss of social status because they are prevented from becoming leaders or expressing their opinions in community meetings (Papreen et al., 2000). In addition, the stigma that infertile men will tend to hurt young children has not been studied further in this regard.

Most infertile couples make various efforts to relate to God, including believing in God, praying to God, approaching God and accepting God's decision (A6,A12). In addition to the spiritual impact, both infertile women and men experience psychological problems such as loneliness, anxiety, depression, lack of concentration, worry, reduced sexual satisfaction and loss of interest in social interactions (A1,A6,A7,A8). (Heng & Shorey, 2022) stated that infertility is a more stressful and depressing experience for women than for men because more pressure is received by women both from family and society.

Men feel stress and pressure related to their reproductive problems. This is exacerbated by the social support that more women receive than men. Infertile men feel socially isolated, causing anxiety and stress. Humiliation, disappointment, isolationism, and obsession are some of the feelings expressed by men as a result of infertility so that infertile men prefer to stay away from their community (A1,A2,A6). This is in line with research conducted by Fisher and Hammarberg, 2014 that research on psychosocial aspects of infertility and infertility treatment focuses more on women than men so that men prefer oral rather than written treatment information and prefer to receive emotional support from infertility doctors rather than professionals. mental health, self-help support groups or friends (Fisher & Hammarberg, 2012). While on the relationship aspect with partners, some couples report good relations, others report a decrease in sexual activity (A1, A6).

Infertility has been reported as a major cause of marital problems among couples (A1,A7,A8). One of the major problems of marriage is divorce, where as some women are divorced or threatened with divorce, women with infertility have a greater likelihood of marital instability (A8). In line with Fledderjohann's

research that women with infertility more often experience divorce and infidelity, while infertile men are often protected by diversion where the fault lies with the woman (Fledderjohann, 2012). Satisfaction of infertile women with their partners also decreases (A1,A7). This is in line with research (Czyżkowska et al., 2016) that infertile women experience lower sense of sexual satisfaction compared to fertile women. Infertile women also experience a decrease in sexual frequency and failure to reach orgasm, and feel stressed in sexual intercourse. (A4,A7,A8). Research conducted by (Kohan et al., 2015) states that infertility affects various aspects of women's sexual life, especially disturbances in femininity-body image and sexual reluctance.

In treating infertility, the cooperative attitude of partners, especially men, is one of the factors supporting the success of infertility treatment. In addition, psychosocial support from health care providers is required (A5). The age of infertile couples is also an indicator of success in achieving pregnancy. The younger the female infertile patient, the higher the success of the IVF-ET program (A9). While medical costs are the most important barrier even for highincome people in infertility treatment. Mental and emotional problems are another major factor affecting the treatment procedure. Lack of infertility centres, shortage of skilled doctors and long distances are among the barriers mentioned in this study that force individuals to discontinue treatment. Mental burden and physical pain are also part of the barriers in infertility treatment (A2,A6,A12). In line with research conducted by (Domar et al., 2021) that perceived costs during infertile treatment are the most frequently reported obstacle for infertile couples, even half of all infertile couples who take treatment stop due to the financial impact.

Some couples seek psychologists for help with marital problems and coping with the stress of infertility. Some couples choose online forums to share experiences and practical information regarding infertility treatment (A3). Infertile couples feel more at ease when they have support from their parents, relatives, friends, colleagues, and health care providers

(A5, A10). (Hasanpoor-Azghady et al., 2019) in his research stated that infertile women are greatly helped by the support of their husbands, family, relatives, friends, medical staff and even policy makers. However, there are still many women who do not get support even from their families or husbands. Another study conducted by (Savadzadeh & madadzadeh, 2013) found that infertile women get unpleasant behavior from their husbands and families. Therefore, self-control by women is better in coping strategies. Self-control is another technique couples use to deal with infertility. Self-control is an empowerment technique that allows women to manage their feelings about infertility and better understand their ability to deal with the problem, which ultimately leads to personal comfort (A12). (Cunha, Galhardo, & Pinto 2016). Arslan-Özkan, Gouveia. Okumuş, (2014)and Pasha, Buldukoğlu Faramarzi, Esmailzadeh, Kheirkhah, and Salmalian, (2013) found that self-control reduces anxiety, depression and stress in fertile women and results in better treatment outcomes. Conversely, individuals who do not have sufficient knowledge about themselves and their abilities are at risk of failing to complete coping tasks because of weaknesses in their personality. This can lead to social isolation, which has a negative impact on their quality of life (Cousineau & Domar, 2007). Full support from a partner can encourage and can increase self-confidence, security, and equanimity in the difficult journey of dealing with infertility. Their efforts to have a baby are to relieve their loneliness, to maintain the sweetness of their life, to strengthen their relationship and to reward their partner's loyalty. This is more pronounced in infertile women because they see continued infertility and childlessness as a threat to married life and a trigger for separation and divorce (A6, A10). Couple-based coping strategies encourage partners to be aware of each other's feelings when interacting and choose strategies based on those feelings.

# **CONCLUSION**

The conclusion of this study is that couples who experience infertility experience negative social

stigma, experience psychological disorders and physical and spiritual impacts. Infertile couples also experience obstacles in medical treatment. In addition, the best coping strategy for infertility is the support of your partner and those closest to you.

#### REFERENCES

- Aarts, J. W. M., van Empel, I. W. H., Boivin, J., Nelen, W. L., Kremer, J. A. M., & Verhaak, C. M. (2011). Relationship between quality of life and distress in infertility: a validation study of the Dutch FertiQoL. *Human Reproduction (Oxford, England)*, 26(5), 1112–1118. https://doi.org/10.1093/humrep/der051
- Ali, S., Sophie, R., Imam, A. M., Khan, F. I., Ali, S. F., Shaikh, A., & Farid-Ul-Hasnain, S. (2011). Knowledge, perceptions and myths regarding infertility among selected adult population in Pakistan: A cross-sectional study. *BMC Public Health*, *11*(1), 760. https://doi.org/10.1186/1471-2458-11-760
- Ali, T. S., & Sami, N. (2007). Adoption practices among couples with secondary infertility in Karachi: a triangulation study design. *JPMA*. *The Journal of the Pakistan Medical Association*, *57*(2), 55–59.
- Amiri, M., Khosravi, A., Chaman, R., Sadeghi, Z., Raei, M., Jahanitiji, M. A., & Mehrabian, F. (2015). Social Consequences of Infertility on Families in Iran. *Global Journal of Health Science*, 8(5), 89–95. https://doi.org/10.5539/gjhs.v8n5p89
- Anokye, R., Acheampong, E., Mprah, W. K., Ope, J. O., & Barivure, T. N. (2017). Psychosocial effects of infertility among couples attending St. Michael's Hospital, Jachie-Pramso in the Ashanti Region of Ghana. *BMC Research Notes*, 10(1), 1–5. https://doi.org/10.1186/s13104-017-3008-8
- Burnett, J. A. (2009). Cultural considerations in counseling couples who experience infertility. *Journal of Multicultural Counseling and Development*, 37(3), 166–177. https://doi.org/10.1002/j.2161-1912.2009.tb00100.x
- Centers for Disease Control. (2019). Assisted Reproductive Technology (ART). https://www.cdc.gov/art/whatis.html
- Czyżkowska, A., Awruk, K., & Janowski, K. (2016). Sexual satisfaction and sexual reactivity in infertile women: The contribution of the dyadic functioning and clinical variables. *International Journal of Fertility and Sterility*, 9(4), 465–476.
- Dancet, E. A. F., Van Empel, I. W. H., Rober, P., Nelen, W. L. D. M., Kremer, J. A. M., & D'Hooghe, T. M. (2011). Patient-centred infertility care: a qualitative study to listen to the patient's voice.

- Human Reproduction (Oxford, England), 26(4), 827–833. https://doi.org/10.1093/humrep/der022
- Domar, A., Vassena, R., Dixon, M., Costa, M., Vegni, E., Collura, B., Markert, M., Samuelsen, C., Guiglotto, J., Roitmann, E., & Boivin, J. (2021). Barriers and factors associated with significant delays to initial consultation and treatment for infertile patients and partners of infertile patients. *Reproductive BioMedicine Online*, 43(6), 1126–1136.
  - https://doi.org/https://doi.org/10.1016/j.rbmo.20 21.09.002
- Donkor, E. S., Naab, F., & Kussiwaah, D. Y. (2017). "I am anxious and desperate": psychological experiences of women with infertility in The Greater Accra Region, Ghana. *Fertility Research and Practice*, 3, 6. https://doi.org/10.1186/s40738-017-0033-1
- Dyer, S. J., Abrahams, N., Mokoena, N. E., & van der Spuy, Z. M. (2004). "You are a man because you have children": Experiences, reproductive health knowledge and treatment-seeking behaviour among men suffering from couple infertility in South Africa. *Human Reproduction*, *19*(4), 960–967. https://doi.org/10.1093/humrep/deh195
- Ebrahimzadeh Zagami, S., Latifnejad Roudsari, R., Janghorban, R., & Allan, H. T. (2022). Trying for a second chance: Iranian infertile couples' experiences after failed ART. *Journal of Psychosomatic Obstetrics and Gynaecology*, 43(2), 165–170. https://doi.org/10.1080/0167482X.2021.1961733
- Everett, G. (2020). *Hungary to provide free fertility treatment to boost population*. https://www.bbc.com/news/world-europe-51061499
- Fahami, F., Quchani, S. H., Ehsanpour, S., & Boroujeni, A. Z. (2010). Lived experience of infertile men with male infertility cause. *Iranian Journal of Nursing and Midwifery Research*, 15(Suppl 1), 265–271.
- Fisher, J. R. W., & Hammarberg, K. (2012). Psychological and social aspects of infertility in men: An overview of the evidence and implications for psychologically informed clinical care and future research. *Asian Journal of Andrology*, 14(1), 121–129. https://doi.org/10.1038/aja.2011.72
- Fledderjohann, J. J. (2012). 'Zero is not good for me': implications of infertility in Ghana. 27(5), 1383–1390. https://doi.org/10.1093/humrep/des035
- Gameiro, S., Canavarro, M. C., & Boivin, J. (2013). Patient centred care in infertility health care: direct and indirect associations with wellbeing during treatment. *Patient Education and*

- *Counseling*, 93(3), 646–654. https://doi.org/10.1016/j.pec.2013.08.015
- Hämmerli, K., Znoj, H., & Berger, T. (2010). What are the issues confronting infertile women? A qualitative and quantitative approach. *Qualitative Report*, 15(4), 766–782. https://doi.org/10.46743/2160-3715/2010.1180
- Harzif, A. K., Santawi, V. P. A., & Wijaya, S. (2019). Discrepancy in perception of infertility and attitude towards treatment options: Indonesian urban and rural area. *Reproductive Health*, *16*(1), 1–7. https://doi.org/10.1186/s12978-019-0792-8
- Hasanpoor-Azghady, S. B., Simbar, M., Vedadhir, A. A., Azin, S. A., & Amiri-Farahani, L. (2019). The social construction of infertility among Iranian infertile women: A qualitative study. *Journal of Reproduction and Infertility*, 20(3), 178–190.
- Hasanpoor-Azghdy, S. B., Simbar, M., & Vedadhir, A. (2015). The social consequences of infertility among Iranian women: A qualitative study. *International Journal of Fertility and Sterility*, 8(4), 409–420.
- Heng, F. W., & Shorey, S. (2022). Experiences of endometriosis-associated infertility among women and their partners: A qualitative systematic review. *Journal of Clinical Nursing*, 31(19–20), 2706– 2715. https://doi.org/10.1111/jocn.16145
- Imeson, M., & McMurray, A. (1996). Couples' experiences of infertility: a phenomenological study. *Journal of Advanced Nursing*, 24(5), 1014–1022. https://doi.org/10.1111/j.1365-2648.1996.tb02938.x
- Khodakarami, N., Hashemi, S., Seddigh, S., Hamdiyeh, M., & Taheripanah, R. (2010). Life Experience with Infertility; a Phenomenological Study. *Journal of Reproduction* \& *Infertility*, 10(4), 287.
- Khodakarami, N., Seddiq, S., Hashemi, S., Hamdieh, M., & Taheripanah, R. (2009). The disregarded rights of infertility: a phenomenological study. *Iranian Journal of Medical Ethics and History of Medicine*, 2(3). http://ijme.tums.ac.ir/article-1-271-en.html
- Kohan, S., Ghasemi, Z., & Beigi, M. (2015). Exploring infertile women's experiences about sexual life: A qualitative study. *Iranian Journal of Nursing and Midwifery Research*, 20(1), 34–39.
- Leke, R. J., Goyaux, N., Matsuda, T., & Thonneau, P. F. (2004). Ectopic pregnancy in Africa: a population-based study. *Obstetrics and Gynecology*, 103(4), 692–697.
  - https://doi.org/10.1097/01.AOG.0000120146.480
- Magramo, K. (2023). China to offer free fertility treatment in bid to boost record low birth rate. https://edition.cnn.com/2023/02/08/china/china-

- ivf-fertility-treatment-national-healthcare-intl-hnk/index.html
- Mesquita da Silva, S., Place, J. M., Boivin, J., & Gameiro, S. (2020). Failure after fertility treatment: regulation strategies when facing a blocked parenthood goal. *Human Fertility* (*Cambridge*, *England*), 23(3), 179–185. https://doi.org/10.1080/14647273.2018.1510186
- Mosalanejad, L., Parandavar, N., & Abdollahifard, S. (2013). Barriers to infertility treatment: an integrated study. *Global Journal of Health Science*, 6(1), 181–191. https://doi.org/10.5539/gjhs.v6n1p181
- Papreen, N., Sharma, A., Sabin, K., Begum, L., Ahsan, S. K., & Baqui, A. H. (2000). Living with infertility: experiences among Urban slum populations in Bangladesh. *Reproductive Health Matters*, 8(15), 33–44. https://doi.org/10.1016/s0968-8080(00)90004-1
- Regeer, H., Nieuwenhuijse, E. A., Vos, R. C., Kieftede Jong, J. C., van Empelen, P., de Koning, E. J. P., Bilo, H. J. G., & Huisman, S. D. (2021). Psychological factors associated with changes in physical activity in Dutch people with type 2 diabetes under societal lockdown: A cross-sectional study. *Endocrinology, Diabetes & Metabolism*, 4(3), e00249. https://doi.org/https://doi.org/10.1002/edm2.249
- Savadzadeh, sh, & madadzadeh, n. (2013). Explanation of Emotional Feelings of Women with Infertility: A Qualitative Study. *Journal of Ilam University of Medical Sciences*, 21(1). http://sjimu.medilam.ac.ir/article-1-996-en.html
- Sedlander, E., Bingenheimer, J. B., Lahiri, S., Thiongo, M., Gichangi, P., Munar, W., & Rimal, R. N. (2021). Does the Belief That Contraceptive Use Causes Infertility Actually Affect Use? Findings from a Social Network Study in Kenya. *Studies in Family Planning*, 52(3), 343–359. https://doi.org/https://doi.org/10.1111/sifp.12157
- Sundby, J. (1997). Infertility in the Gambia: traditional and modern health care. *Patient Education and Counseling*, 31(1), 29–37.

- https://doi.org/10.1016/s0738-3991(97)01006-9
- Taebi, M., Kariman, N., Montazeri, A., & Majd, H. A. (2021). Infertility stigma: A qualitative study on feelings and experiences of infertile women. *International Journal of Fertility and Sterility*, 15(3), 189–196. https://doi.org/10.22074/ijfs.2021.139093.1039
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K.,
  Colquhoun, H., Levac, D., Moher, D., Peters, M.
  D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E.
  A., Chang, C., McGowan, J., Stewart, L., Hartling,
  L., Aldcroft, A., Wilson, M. G., Garritty, C., ...
  Straus, S. E. (2018). PRISMA Extension for
  Scoping Reviews (PRISMA-ScR): Checklist and
  Explanation. *Annals of Internal Medicine*, 169(7),
  467–473. https://doi.org/10.7326/M18-0850
- van Empel, I. W. H., Nelen, W. L. D. M., Tepe, E. T., van Laarhoven, E. A. P., Verhaak, C. M., & Kremer, J. A. M. (2010). Weaknesses, strengths and needs in fertility care according to patients. *Human Reproduction (Oxford, England)*, 25(1), 142–149. https://doi.org/10.1093/humrep/dep362
- WHO. (2020). *Infertility*. WHO Publication. https://www.who.int/health-topics/infertility#tab=tab\_1
- Win. (2014). *The Physical and Emotional Toll of Infertility Treatment*. Winfertility. https://www.winfertility.com/blog/stress-of-infertility-treatment-ivf/
- Yaghmaei, F., Mohammadi, S., & Alavimajd, H. (2009). Developing "Quality of Life in Infertile Couples Questionnaire" and Measuring its Psychometric Properties. *Journal of Reproduction* \& *Infertility*, 10(2), 137.
- Zargham-Boroujeni, A., Jafarzadeh-Kenarsari, F., Ghahiri, O., & Habibi, O. (2014). Empowerment and sense of adequacy in infertile couples: A fundamental need in treatment process of infertility A qualitative study. *Qualitative Report*, *19*(6), 1–14. https://doi.org/10.46743/2160-3715/2014.1274