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Original Research Article

Quality of Life among Married Women with Infertility in Rajasthan: A Cross-Sectional Study at a Tertiary Care Hospital

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Abstract

Background: Infertility affects a substantial proportion of couples worldwide, with profound emotional, social, and psychological consequences. In regions where cultural and societal norms strongly emphasize parenthood, women often experience greater stress and reduced well-being. This study aimed to evaluate the quality of life (QoL) among married women experiencing infertility in Rajasthan using the validated Fertility Quality of Life (FertiQoL) instrument.

Methods: A descriptive cross-sectional study was conducted from April 2023 to June 2024 at Mahila Chikitsalaya, a tertiary care women's hospital attached to Sawai Man Singh (SMS) Medical College, Jaipur. A total of 180 married women with confirmed infertility were recruited after informed consent. Data on socio-demographic and infertility-related factors were collected using a semi-structured proforma, and QoL was assessed with the FertiQoL questionnaire, available in English and Hindi. Statistical analysis was performed using SPSS version 26.0.

Results: Participants' mean age was 30.33 ± 5.62 years and nearly half (48.9%) belonged to the highest socioeconomic class (Class I). Primary infertility was more common (58.3%) than secondary infertility, and most women (71.7%) had been undergoing treatment for less than five years. The mean Core FertiQoL and Treatment FertiQoL scores were 53.99 ± 14.10 and 54.96 ± 11.18, respectively, with an overall mean score of 54.27 ± 12.16, indicating relatively low QoL. Among subscales, the Mind/Body domain scored lowest (46.69), while the Relational domain scored highest (65.72).

Conclusion: Infertility significantly reduces quality of life across multiple domains. Implementing psychological support, addressing social stigma, and enhancing access to affordable infertility care are crucial to improving well-being in this population.

Keywords: Infertility, Quality of Life, FertiQoL, Psychosocial Health, Rajasthan.

Introduction

Parenthood is regarded as one of the most valued life goals, representing love, fulfilment, and family bonding. Although childbirth involves immense pain, women often forget that suffering in the joy of bringing a newborn into the world. However, not every couple conceives naturally; many require medical support to overcome infertility. Recognized by the WHO as a major public health concern, infertility affects millions worldwide and imposes significant emotional and social burdens. [1] The definition and causes of infertility vary across regions and are influenced by social, cultural, and physical factors, making it difficult to establish a single universal definition. Clinically, infertility is considered a reproductive disorder in which women are unable to conceive after 12 months or more of regular unprotected intercourse. Demographically, it is defined as the inability of women aged 15–49 years to achieve pregnancy despite being exposed to the risk of conception for five or more years. Infertility is further categorized as primary (no previous conception) and secondary (previous conception but inability to conceive again). [2] Globally, infertility affects nearly one in six individuals, with an estimated 60–80 million couples impacted, accounting for 8–12% of couples overall. Secondary infertility is reported to be nearly twice as common as primary infertility, which ranges from 3% to over 30%. In India, WHO reports infertility prevalence between 3.9% and 16.8%. [3] According to NFHS-5 (2019–21), the Total Fertility Rate (TFR) has continued to decline,

reaching 2.0—below the replacement level of 2.1. [4] Although infertility impacts both sexes, its social and psychological consequences disproporti onately affect women, particularly in communities where motherhood is closely tied to female identity. Women with infertility frequently endure psychological stress, marital discord, and social stigma. The inability to bear children often triggers guilt, feelings of inadequacy, and reduced self-esteem. Societal expectations usually place the blame on women, subjecting them to discrimination, social exclusion, and in extreme cases, domestic abuse or marital breakdown. [5]

The emotional consequences of infertility are substantial, often presenting as depression, anxiety, and strained relationships. Many women lose social standing and face exclusion from cultural and religious events. In patriarchal societies, childless women are at times labelled "inauspicious," worsening their emotional struggles. [6] Unlike men, women undergo invasive diagnostic and therapeutic procedures, experience the physical and emotional challenges of treatment, and follow strict medical protocols—all of which considerably influence their quality of life (QoL). [7]

Thus, infertility is not only a medical condition but also a complex stressor that disrupts a woman's psychological, social, and emotional well-being. [2]

Despite its wide-ranging implications, evidence from India regarding the effect of infertility on women's QoL remains scarce. Against this backdrop, a cross-sectional study was undertaken to evaluate the quality of life of married women with infertility attending the IVF clinic of a leading public tertiary care hospital in Rajasthan.

Methods

This descriptive cross-sectional study was conducted at Mahila Chikitsalaya, a tertiary care women's hospital attached to Sawai Man Singh (SMS) Medical College, Jaipur, Rajasthan, between April 2023 and June 2024.

The sample size was calculated at a 95% confidence level, assuming a standard deviation of 13.08 in the Core percentile of FertiQoL scores among women.[8] With a precision of 2 points, the minimum required sample size was 165; allowing for a 10% non-response rate, the final sample size was set at 180 women, which was adequate to meet the study objectives. Married women with a confirmed diagnosis of female infertility, attending the IVF clinic and undergoing treatment for at least one year, were eligible for inclusion after providing written informed consent. Women who were uncooperative or unable to communicate due to language barriers or intellectual limitations were excluded. Clinic records indicated that approximately 2,000 patients visited the IVF clinic annually, of whom about 700 had confirmed female infertility. A pre-test of the proforma suggested that each interview required ~30 minutes, permitting 2–3 interviews per clinic visit. Data were collected 2–3 days per week, with an average of 10–15 women approached to recruit 2–3 eligible participants, accounting for exclusions and refusals.

Data collection began after obtaining approvals from the Institutional Research Review Board (RRB), Ethics Committee and In-charge of IVF clinic at Mahila Chikitsalaya. Data was collected through face-to-face interviews conducted in a private setting to maintain confidentiality. A semi-structured proforma captured socio-demographic and infertility-related details, while the standardized FertiQoL questionnaire was administered by the investigator. The FertiQoL questionnaire, developed by European Society of Human Reproduction and Embryology (ESHRE) and the American Society of Reproductive Medicine (ASRM), is a validated 36-item tool assessing fertility-related QoL across core (emotional, mind-body, relational, social) and treatment (environment, tolerability) domains, scored 0–100. Items were explained in the participant's language and context to ensure clarity, and responses were recorded accurately.

Statistical analysis was performed Microsoft Excel and SPSS version 26.0 (IBM, Chicago, USA). Continuous variables were summarized as mean and standard deviation and categorical variables as percentages & proportions.

Results

A total of 180 married women with infertility were studied. Sociodemographic and infertility-related characteristics are presented in Tables 1 and 2. The mean age of participants was 30.33 ± 5.62 years, with most women between 26 and 35 years. The majority resided in urban areas, nearly half had school-level education, and most were homemakers. Almost half belonged to the highest socioeconomic class. The average duration of marriage was about eight years, and primary infertility was more common (58.3%) than secondary infertility. Most women (71.7%) had been undergoing treatment for less than five years.

Table 1: Distribution of study participants according to sociodemographic profile (N=180).

Variables		Frequency	Proportion (%)
Age Group (years)	≤ 25	41	22.78
	26-35	109	60.56
	> 35	30	16.67
Religion	Hindu	150	83.33
	Muslim	30	16.67
Residence	Rural	58	32.22
	Urban	122	67.78
Education of Women	Illiterate	13	7.22
	Up to School	79	43.89
	Graduate	44	24.44
	Post Graduate	44	24.44
Occupation of Women	Housewife	143	79.44
	Unskilled	5	2.78
	Semi-skilled	6	3.33
	Skilled	11	6.11
	Professional	15	8.33
	Semi-skilled	51	28.33
	Skilled	78	43.33
	Professional	23	12.78
Socioeconomic Status (SES)	I	88	48.89
	II	61	33.89
	III	26	14.44
	IV	4	2.22
	V	1	0.56

Table 2: Distribution of study participants according to their infertility related characteristics (N=180).

Variables		Number	Percentage (%)
Duration of Marriage (years)	< 5	55	30.56
	5-10	87	48.33
	> 10	38	21.11
Type of Infertility	Primary	105	58.33
	Secondary	75	41.67
Duration of Medical Treatment (years)	< 5	129	71.67
	5-10	39	21.67
	> 10	12	6.67

The mean Core FertiQoL and Treatment FertiQoL scores were 53.99 ± 14.10 and 54.96 ± 11.18, respectively. The overall FertiQoL score was 54.27 ± 12.16 (median 55.15; IQR 47–62.5), indicating a relatively low fertility-related quality of life among the participants. These findings suggest that both general and treatment-related aspects of quality of life were similarly affected (Table 3).

Table 3: Descriptive analysis of Fertility Quality of Life (FertiQoL) Scales (N=180).

Scales	Mean	SD
Core FertiQoL	53.99	14.10
Treatment FertiQoL	54.96	11.18
FertiQoL (Total)	54.27	12.16

Analysis of the Core FertiQoL subscales revealed that the Mind/Body domain had the lowest mean score (46.69), suggesting significant physical and emotional strain, whereas the Relational domain scored highest (65.72), indicating stronger partner support. The Social (52.59) and Emotional (50.95) subscales showed wide variability, reflecting diverse individual experiences. In the Treatment module, the Environment subscale recorded a lower mean (47.45), whereas Tolerability scored higher (66.22), suggesting that women adapted better to treatment regimens than to environmental factors. (Table 4).

Table 4: Descriptive analysis of Fertility Quality of Life (FertiQoL) subscales (N=180).

Subscales	Mean	SD
Emotional subscale	50.95	14.39
Mind/Body subscale	46.69	14.84
Relational subscale	65.72	19.19
Social subscale	52.59	20.24
Environment subscale	47.45	15.53
Tolerability subscale	66.22	16.08

Discussion

Infertility often carries a profound emotional and social burden, particularly in societies where motherhood is closely tied to a woman's identity and marital fulfilment. The present study found that a mean FertiQoL (Total) score of 54.27, reflecting a relatively poor quality of life among the participants. These findings are consistent with earlier reports from India and abroad, such as those by Bharati Roy et al. [9] and Boivin et al [10], while study conducted by Fatma Zeren et al. [11] in Turkey, reported considerably higher scores, possibly reflecting socio-cultural differences. In India, where childbearing is often central to marital fulfilment, societal pressure may exacerbate distress and reduce quality of life in infertile women.

When looking at the Core FertiQoL scores, our results were similarly modest, aligning with studies by Sughra Abbasi et al.12 and Meruyert Suleimenova et al. [13] In contrast, higher averages have been reported in Iran and China, including studies by Saman Maroufiza et al. [14] and Donghong Song et al. [15], suggesting that women in those contexts may benefit from stronger social acceptance and support. Interestingly, even within India, marked variations exist: Geeta Shripad Wadadek et al. [16] in Pune documented higher scores, whereas Sameer Valsangkar et al. [17] in Karimnagar found much lower values, highlighting how local socio-demographic and cultural factors influence the lived experience of infertility.

Treatment-related quality of life followed a similar pattern. Our participants reported scores close to those described by Pei-Yang Hsu et al. [18], but considerably lower than those observed in European settings, such as the study by Claudia Massarotti et al. [19] These discrepancies may be explained by differences in healthcare access and affordability. In many Western countries, fertility services are widely available and sometimes state-supported, whereas in India, treatment is often costly and less accessible. This financial strain, combined with the stigma surrounding infertility, can further erode women's well-being.Taken together, infertility in India is shaped not only by medical challenges but also by cultural expectations and limited treatment access, which together diminish women's quality of life.

Conclusion

The present study observed a lower fertility-related quality of life among married women with infertility, as reflected in the mean FertiQoL (Total), Core FertiQoL, and Treatment FertiQoL scores. With a mean FertiQoL (Total) score of 54.27 ± 12.16, the findings highlight a considerable impact of infertility on women's overall well-being. These results underscore the need for comprehensive strategies that go beyond medical management, including timely medical intervention, strengthening of emotional and social support systems, promotion of healthy lifestyles, and reduction of societal stigma.

Recommendations

Future efforts should focus on integrating psychological counselling into infertility care, creating community-based programs to reduce stigma, and improving accessibility and affordability of fertility services. Such culturally sensitive interventions can help support the emotional well-being and overall quality of life of affected women.

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Declarations

Ethical approval & Consent: The study followed the principles of the Declaration of Helsinki. Institutional Ethics Committee approval was obtained from Sawai Mansingh Medical College, Jaipur.

The study commenced after obtaining written informed consent from all participants, and strict privacy and confidentiality were maintained throughout the study process.

References

1. Devi P, Kumar S. Impact of Infertility on Psychological Well-being and Marital Life in Infertile Women: A Review*. The Journal Of Oriental Research Madras. 2021 Jul 31; XCII-XL(0022-3301).
2. Purkayastha N, Sharma H. Prevalence and potential determinants of primary infertility in India: Evidence from Indian demographic

health survey. Clinical Epidemiology and Global Health. 2021;9(2213 3984):162-170.
3. World Health Organization. Infertility Prevalence Estimates, 1990–2021. www.who. int. 2023.
4. Vital Stats. PRS Legislative Research. https://prsindia.org/policy/vital stats/national-family-health-survey-5
5. Kiani Z, Simbar M, Hajian S, Zayeri F. The prevalence of depression symptoms among infertile women: a systematic review and meta analysis. Fertil Res Pract. 2021 Mar 4;7(1):6.
6. Vo TM, Tran QT, Le CV, Do TT, Le TM. Depression and associated factors among infertile women at Tu Du hospital, Vietnam: a cross sectional study. Int J Womens Health. 2019 May 28;11:343-351.
7. Lata I, Mishra P, Tripathi A. Depression among infertile women attending outpatient department of a tertiary care hospital in Northern India: A cross-sectional study. International Journal of Clinical Obstetrics and Gynaecology. 2020 May 1;4(3):133–7.
8. Wadadekar GS, Inamdar DB, Nimbargi VR. Assessment of impact of infertility & its treatment on quality of life of infertile couples using fertility quality of life questionnaire. J Hum Reprod Sci 2021;14:3-10.
9. Bose S, Roy B , Umesh S. Marital Duration, and Fertility-Related Stress as Predictors of Quality of life: Gender Differences among Primary Infertile Couples. Journal of Human Reproductive Sciences. 2021 Apr Jun;14(2):184-190.
10. Boivin J, Takefman J, Braverman A. The fertility quality of life (FertiQoL) tool: development and general psychometric properties. Hum Reprod. 2011 Aug; 26(8): 2084-91.
11. Zeren F, Gürsoy E, Çolak E. The Quality of Life and Dyadic Adjustment of Couples Receiving Infertility Treatment. Afr J Reprod Health. 2019 Mar;23(1):117-127.
12. Abbasi S, Kousar R. The Fertility Quality of Life (FertiQol) Questionnaire in Pakistani Infe rtile Women. JBUMDC 2016; 6(3):170-173.
13. Suleimenova M, Lokshin V, Glushkova N, Karibayeva S, Terzic M. Quality-of-Life Assessment of Women Undergoing In Vitro Fertilization in Kazakhstan. Int J Environ Res Public Health. 2022 Oct 20;19(20):13568.
14. Maroufizadeh S, Hosseini M, Rahimi Foroushani A, Omani-Samani R, Amini P. The effect of depression on quality of life in infertile couples: an actor-partner interdependence model approach. Health Qual Life Outcomes. 2018 Apr 24;16(1):73.
15. Song D, Li X, Yang M, Wang N, Zhao Y, Diao S, et al. Fertility quality of life (FertiQoL) among Chinese women undergoing frozen embryo transfer. BMC Women's Health. 2021 Apr 24;21(1):NA–NA.
16. Wadadekar GS, Inamdar DB, Nimbargi VR. Assessment of impact of infertility & its treatment on quality of life of infertile couples using fertility quality of life questionnaire. J Hum Reprod Sci 2021;14:3-10.
17. Valsangkar S, Bodhare T, Bele S, Sai S. An evaluation of the effect of infertility on marital, sexual satisfaction indices and health-related quality of life in women. J Hum Reprod Sci. 2011 May;4(2):80-5.
18. Hsu PY, Lin MW, Hwang JL, Lee MS, Wu MH. The fertility quality of life (FertiQoL) questionnaire in Taiwanese infertile couples. Taiwan J Obstet Gynecol. 2013 Jun;52(2):204-9.
19. Massarotti C, Gentile G, Ferreccio C, Scaruffi P, Remorgida V, Anserini P. Impact of infertility and infertility treatments on quality of life and levels of anxiety and depression in women undergoing in vitro fertilization. Gynecol Endocrinol. 2019 Jun;35(6):485-489.