



## A Study to Assess the Quality of Life of Women Undergoing Infertility Treatment among Selected Hospitals

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### KEYWORDS

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### ABSTRACT:

#### Background:

Infertility is a growing concern globally, significantly impacting the physical, emotional, social, and psychological well-being of women. Women undergoing infertility treatments often face a multitude of challenges that influence their overall quality of life.

#### Objectives:

1. To assess the quality of life of women undergoing infertility treatment.
2. To evaluate the factors affecting the quality of life among these women.
3. To find the association between quality of life and selected demographic variables.

#### Methods:

A descriptive cross-sectional study was conducted among women undergoing infertility treatment at selected hospitals. A total of 200 participants were recruited using purposive sampling. Data were collected using a Fertility Scale (Fertility Quality of Life Tool) standardised questionnaire along with a self-structured tool to capture demographic and treatment-related factors. Statistical analysis included descriptive and inferential statistics.

#### Results:

Preliminary findings indicate that the overall quality of life among women undergoing infertility treatment is significantly affected, particularly in the domains of emotional well-being and social support. Factors such as age, duration of infertility, type of treatment, and support from family were identified as influential. A significant association was found between QoL scores and demographic variables such as age, education, duration of marriage, and economic status ( $p < 0.05$ ).

#### Conclusion:

Women undergoing infertility treatment experience a compromised quality of life influenced by various psychosocial and demographic factors. Holistic and psychosocial support systems are essential to improve their well-being during treatment.

### 1. Introduction

Infertility, defined as the inability to conceive after one year of unprotected intercourse, affects millions of women worldwide. While medical advancements have improved treatment outcomes, the journey of infertility remains emotionally and psychologically taxing. In

many cultures, especially in developing countries, infertility can lead to social stigma, marital discord, and a decline in self-worth among women. In developed nations, it is estimated that between 10–15% of couples suffer from infertility<sup>1</sup>. Women undergoing infertility treatments often deal with physical discomfort, financial burden, and emotional distress. The cumulative effect of



these stressors can severely compromise their quality of life. Despite the medical focus on achieving conception, the psychological and social experiences of women are often underexplored.<sup>2</sup> Understanding the quality of life in women undergoing infertility treatment is crucial for providing holistic care. This study aims to highlight the physical, psychological, and social dimensions of their experiences and the influence of various demographic and treatment-related factors. The insights gained can guide healthcare professionals in planning supportive interventions and improving patient outcomes.<sup>3</sup>

It is estimated that 4-17% of couples in India have difficulty conceiving, with male and female factors causing problems in about 23% of these patients. The psychological reactions to infertility can manifest as depression, anxiety, frustration, social isolation, and low self-esteem. Many couples with undesired childlessness describe it as one of the most upsetting events in their life.<sup>4</sup> Emotional distress, in turn, adversely affects the coping of the couple concerning treatment and outcome. The large majority of studies on psychological problems related to infertility have been carried out in women, among whom psychiatric morbidity has been well documented.<sup>5</sup>

## 2. Objectives

1. To assess the quality of life of women undergoing infertility treatment.
2. To evaluate factors affecting the quality of life of women undergoing infertility treatment.
3. To find the association of the quality of life of women undergoing infertility treatment with selected demographic variables.

## 3. Methods

### Study Design:

Descriptive cross-sectional study.

### Setting:

Selected hospitals offering infertility treatment services.

### Population:

Women are currently undergoing infertility treatment.

### Sample Size:

200 women

### Sampling Technique:

Purposive sampling.

### Inclusion Criteria:

- Women aged 20–45 years.
- Currently undergoing medical or assisted reproductive treatment for infertility.
- Willing to participate and provide informed consent.

### Exclusion Criteria:

- Women with diagnosed psychiatric disorders.
- Women with chronic illnesses that may independently affect quality of life.

### Ethical Considerations

- Ethical clearance obtained from the institutional review board.
- Informed consent taken from all participants.
- Confidentiality and anonymity maintained throughout the study.

### Data Collection Tools:

Section I - Demographic and obstetrical data form.

Section II - Ferti QoL- International (Fertility Quality of Life Questionnaire)

### Data Analysis:

- Descriptive statistics: mean, median, SD, frequency, percentage.
- Inferential statistics: t-test, Fisher's Exact Test.



#### 4. Results

##### Section I

**Table 1: Description of samples (women undergoing infertility treatment) based on their personal characteristics in terms of frequency and percentage**  
N=200

Demographic variable	Freq	%
<b>Age</b>		
21-25 years	27	13.5%
26-35 years	63	31.5%
36-45 years	78	39.0%
46 years and above	32	16.0%
<b>Education</b>		
No Formal Education	1	0.5%
Primary	9	4.5%
Secondary	77	38.5%
Higher education	103	51.5%
Graduation	10	5.0%
<b>Type of occupation</b>		
Unemployment	71	35.5%
Self-Employment	55	27.5%
In service	69	34.5%
Others	5	2.5%
<b>Religion</b>		
Hindu	174	87.0%
Muslim	10	5.0%
Christian	12	6.0%
Buddhist	4	2.0%
<b>Family income</b>		
Rs. 10,000-15,000	22	11.0%
Rs. 15,001-20,000	44	22.0%
Rs. 20,001-25,000	87	43.5%
More than 25,001	47	23.5%
<b>Type of family</b>		
Nuclear	126	63.0%
Joint	74	37.0%
<b>Living area</b>		
Urban	191	95.5%
Rural	9	4.5%

Table 1 shows that 13.5% of the women undergoing infertility treatment were aged 21-25 years, 31.5% of them were aged 26-35 years, 39% of them were aged 36-45 years, and 16% of them were age above 45 years.

- 0.5% of them did not have formal education, 4.5% of them had primary education, 38.5% of them had secondary education, 51.5% of them had higher education, and 5% of them had graduation.
- 35.5% of them were unemployed, 27.5% of them were self-employed, 34.5% of them were having service and 2.5% of them had some other occupation.
- 87% of them were Hindu, 5% of them were Muslim, 6% of them were Christian, and 2% of them were Buddhist
- 11% of them had family income Rs. 10000-15000, 22% of them had family income Rs. 15001-20000, 43.5% of them had family income Rs. 20001-25000, and 23.5% of them had family income more than Rs. 25000.
- 63% of them had a nuclear family, and 37% of them had a joint family.
- 95.5% of them were from urban areas and 4.5% of them were from rural areas.

**Table 2: Description of samples (women undergoing infertility treatment) based on Obstetric characteristics**  
N=200

Obstetric variable	Freq	%
<b>History of conception</b>		
Yes	54	27.0%
No	146	73.0%
<b>Married since</b>		
Less than 1 year	1	0.5%
1-3 years	149	74.5%
3-5 years	50	25.0%
More than 5 years	0	0.0%
<b>Outcome of conception</b>		
Full term delivery	15	7.5%
Preterm delivery	15	7.5%
Abortion	1	0.5%
Ectopic pregnancy	5	2.5%
Stillbirth	18	9.0%
No conception	146	73.0%



<b>Flow of menstrual cycle</b>		
Scanty	22	11.0%
Normal	40	20.0%
Heavy	51	25.5%
Irregular flow	87	43.5%
<b>Regulated menstrual cycle</b>		
Regular	0	0.0%
Irregular	200	100.0%
<b>Any disturbance during menstrual cycle</b>		
Painful periods	37	18.5%
Missed periods	69	34.5%
Excessive periods		0.0%
Spotting in between cycles	56	28.0%
No disturbances	38	19.0%
<b>Any conception related counselling obtained</b>		
Yes	133	66.5%
No	67	33.5%
<b>Any treatment taken for infertility</b>		
Yes, currently under treatment	180	90.0%
Yes, completed treatment	0	0.0%
No treatment taken	20	10.0%
Evaluated but advised no treatment	0	0.0%
<b>Type of infertility</b>		
Primary infertility	20	10.0%
Secondary infertility	80	40.0%
Unexplained infertility	20	10.0%
Suspected PCOS related infertility	80	40.0%

Table 2 shows that 27% of them had a history of conception.

- 0.5% of them were married for less than a year, 74.5% of them were married for 1-3 years and 25% of them were married for 3-5 years.
- 7.5% of them had full-term delivery, 7.5% of them had preterm delivery, 0.5% of them had abortion, 2.5% of them had ectopic pregnancy, 9% of them had stillbirth, and 73% of them did not have conception.
- 11% of them had scanty menstrual flow, 20% of them had normal menstrual flow, 25.5% of them had heavy menstrual flow, and 43.5% of them had

irregular menstrual flow. All of them had irregular flow.

- 18.5% of them had painful periods, 34.5% of them had missed periods, 28% of them had spotting in between cycles, and 19% of them did not have a disturbance.
- 66.5% of them had conception-related counselling.
- 90% of them were currently under infertility treatment, and 10% of them had evaluated but advised no infertility treatment.
- 10% of them had primary infertility, 40% of them had secondary infertility, and 10% of them had unexplained infertility and 40% of them had suspected PCOS-related infertility

## Section II

Analysis of data related to the quality of life of women undergoing infertility treatment

Fig 1: How would you rate your health? N=200

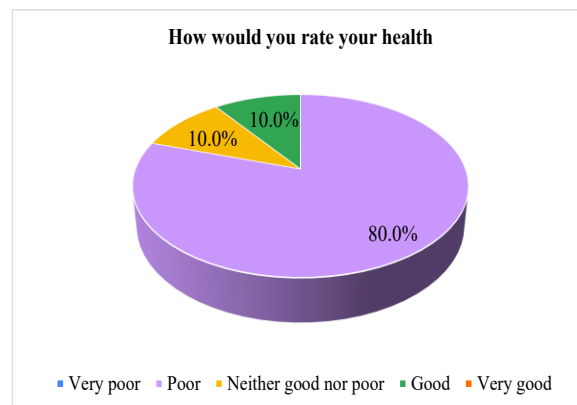


Fig 2: Are you satisfied with your quality of life? N=200

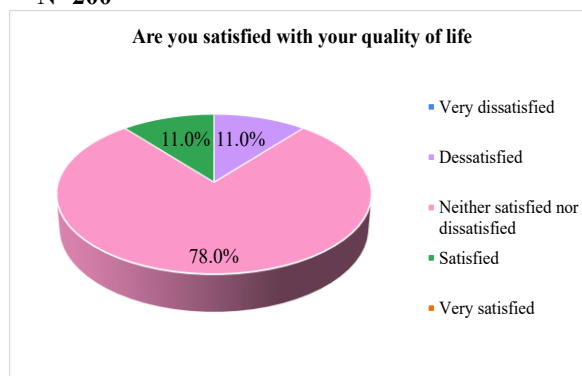
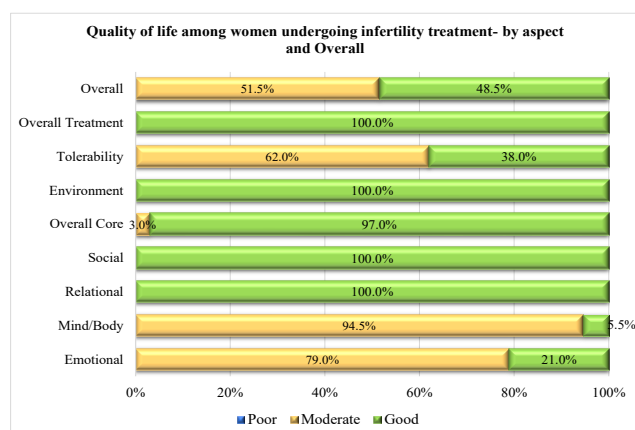


Fig 3: Quality of life of women undergoing infertility treatment N=200



### Section III

#### Analysis of data related to factors affecting quality of life of women undergoing infertility treatment

**Table 3: Emotional quality of life among women undergoing infertility treatment**

Emotional	Freq	%
<b>Do you feel able to cope with your fertility problems</b>		
Completely	0	0.0%
A great deal	45	22.5%
Moderately	116	58.0%
Not much	32	16.0%
Not at all	7	3.5%
<b>Do your fertility problems cause feelings of jealousy and resentment</b>		
Always	0	0.0%
Very often	0	0.0%
Quite often	48	24.0%
Seldom	152	76.0%
Never	0	0.0%
<b>Do you experience grief and/or feelings of loss about not being able to have a child (or more children)</b>		
Always	1	0.5%
Very often	30	15.0%
Quite often	7	3.5%
Seldom	162	81.0%
Never	0	0.0%

<b>Do you fluctuate between hope and despair because of fertility problems</b>		
Always	0	0.0%
Very often	115	57.5%
Quite often	54	27.0%
Seldom	31	15.5%
Never	0	0.0%
<b>Do you feel sad and depressed about your fertility problems</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	119	59.5%
Not at all	81	40.5%
<b>Do your fertility problems make you angry</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	200	100.0%
Not at all	0	0.0%

Table 4 depicts that, 75% of their attention and concentration were moderately impaired by thoughts of infertility. 64% of them mentioned that they cannot move ahead with other life goals and plans because of fertility problems moderately. 68.5% of them mentioned that they feel moderately drained or worn out because of fertility problems. 75% of them stated that fertility problems moderately interfere with their day-to-day work or obligations. 85% of them mentioned that they were bothered a little by fatigue because of fertility problems. All of them felt moderate amount of pain and physical discomfort because of fertility problems.

**Table 5: Relational quality of life among women undergoing infertility treatment N=200**

Relational	Freq	%
<b>Are you satisfied with your sexual relationship even though you have fertility problems</b>		
Very dissatisfied	0	0.0%



Dissatisfied	0	0.0%
Neither satisfied nor dissatisfied	130	65.0%
Satisfied	70	35.0%
Very satisfied	0	0.0%
<b>Are you and your partner affectionate with each other even though you have fertility problems</b>		
Always	0	0.0%
Very often	0	0.0%
Quite often	0	0.0%
Seldom	0	0.0%
Never	200	100.0%
<b>Have fertility problems strengthened your commitment to your partner</b>		
An extreme amount	0	0.0%
Very much	2	1.0%
A moderate amount	103	51.5%
A little	73	36.5%
Not at all	22	11.0%
<b>Have fertility problems had a negative impact on your relationship with your partner</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	0	0.0%
Not at all	200	100.0%
<b>Do you find it difficult to talk to your partner about your feelings related to infertility</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	141	70.5%
Not at all	59	29.5%
<b>Are you content with your relationship even though you have fertility problems</b>		

An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	200	100.0%
Not at all	0	0.0%

Table 5 shows that 65% of them were neither satisfied nor dissatisfied with their sexual relationship, even though they had fertility problems. All of them and their partner were never affectionate with each other, even though they have fertility problems. 51.5% of them stated that fertility problems strengthened their commitment to their partner to a moderate amount. All of them stated that fertility problems had never hurt their relationship with their partner. 70.5% of them stated that they found it a little difficult to talk to their partner about their feelings related to infertility. All of them were a little content with their relationship, even though they had fertility problems.

**Table 6: Social quality of life among women undergoing infertility treatment**

Social	Freq	%
<b>Are you satisfied with the support you receive from friends with regard to your fertility problems</b>		
Very dissatisfied	0	0.0%
Dissatisfied	1	0.5%
Neither satisfied nor dissatisfied	141	70.5%
Satisfied	58	29.0%
Very satisfied	0	0.0%
<b>Are you socially isolated because of fertility problems</b>		
Always	0	0.0%
Very often	0	0.0%
Quite often	0	0.0%
Seldom	36	18.0%
Never	164	82.0%
<b>Do you feel uncomfortable attending social situations like holidays and celebrations because of your fertility problems</b>		





Always	0	0.0%
Very often	0	0.0%
Quite often	134	67.0%
Seldom	0	0.0%
Never	66	33.0%
<b>Do you feel your family can understand what you are going through</b>		
Always	0	0.0%
Very often	0	0.0%
Quite often	0	0.0%
Seldom	124	62.0%
Never	76	38.0%
<b>Do your fertility problems make you inferior to people with children</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	0	0.0%
Not at all	200	100.0%
<b>Do you feel social pressure on you to have (or have more) children</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	0	0.0%
Not at all	200	100.0%

Table 6 reveals that, 70.5% of them were neither satisfied nor dissatisfied with the support they receive from friends with regard to their fertility problems. 82% of them were never socially isolated because of fertility problems. 67% of them quite often feel uncomfortable attending social situations like holidays and celebrations because of their fertility problems. 62% of them seldom feel their family can understand what they are going through. All of them mentioned that fertility problems don't at all make them inferior to people with children. All of them mentioned they don't feel social pressure at all on them to have children.

**Table 7: Environment quality of life among women undergoing infertility treatment N=200**

Environment	Freq	%
<b>Are the fertility medical services you would like available to you</b>		
Always	0	0.0%
Very often	0	0.0%
Quite often	0	0.0%
Seldom	0	0.0%
Never	200	100.0%
<b>Do you feel the fertility staff understand what you are going through</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	0	0.0%
Not at all	200	100.0%
<b>Are you satisfied with the quality of services available to you to address your emotional needs</b>		
Very dissatisfied	0	0.0%
Dissatisfied	0	0.0%
Neither satisfied nor dissatisfied	0	0.0%
Satisfied	200	100.0%
Very satisfied	0	0.0%
<b>How would you rate the surgery and/or medical treatment(s) you have received</b>		
Very dissatisfied	0	0.0%
Dissatisfied	0	0.0%
Neither satisfied nor dissatisfied	200	100.0%
Satisfied	0	0.0%
Very satisfied	0	0.0%
<b>How would you rate the quality of information you received about medication, surgery and/or medical treatment</b>		



Very dissatisfied	0	0.0%
Dissatisfied	0	0.0%
Neither satisfied nor dissatisfied	0	0.0%
Satisfied	200	100.0%
Very satisfied	0	0.0%
<b>Are you satisfied with your interactions with fertility medical staff</b>		
Very dissatisfied	0	0.0%
Dissatisfied	0	0.0%
Neither satisfied nor dissatisfied	0	0.0%
Satisfied	200	100.0%
Very satisfied	0	0.0%

Table 7 shows that, all of them stated that fertility medical services they would like were never available to them. All of them stated that fertility staff did not at all understand what they are going through. All of them were satisfied with the quality of services available to you to address your emotional needs. All of them were neither satisfied nor dissatisfied with the surgery and / or medical treatment(s) they had received. All of them were satisfied with the quality of information they received about medication, surgery and/or medical treatment. All of them were satisfied with their interactions with fertility medical staff.

**Table 8: Tolerability quality of life among women undergoing infertility treatment**

Tolerability	Freq	%
<b>Does infertility treatment negatively affect your mood</b>		
Always	1	0.5%
Very often	0	0.0%
Quite often	123	61.5%
Seldom	25	12.5%
Never	51	25.5%
<b>How complicated is dealing with the procedure and/ or administration of medication for your infertility treatment(s)</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	200	100.0%

A little	0	0.0%
Not at all	0	0.0%
<b>Are you bothered by the effect of treatment on your daily or work-related activities</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	200	100.0%
Not at all	0	0.0%
<b>Are you bothered by the physical side effects of fertility medications and treatment</b>		
An extreme amount	0	0.0%
Very much	0	0.0%
A moderate amount	0	0.0%
A little	200	100.0%
Not at all	0	0.0%

Table 8 shows that, 61.5% of them mentioned that the infertility treatment quite often negatively affects their mood. All of them stated that it is moderately complicated dealing with the procedure and/ or administration of medication for their infertility treatment(s). All of them were moderately bothered by the effect of treatment on their daily or work-related activities. All of them stated that they were bothered a little by the physical side effects of fertility medications and treatment.

#### Section IV

**Analysis of data related to the association of quality of life of women undergoing infertility treatment with selected demographic variables**

**Table 9: Fisher's exact test for the association of quality of life of women undergoing infertility treatment with selected demographic variables N=200**

Demographic variable		Quality of life		p-value
		Moderate	Good	
Age	21-25 years	15	12	0.065
	26-35 years	32	31	





	36-45 years	46	32	
	46 years and above	10	22	
Education	No Formal Education	1	0	0.298
	Primary	7	2	
	Secondary	36	41	
	Higher education	55	48	
	Graduation	4	6	
Type of occupation	Unemployment	34	37	0.875
	Self-Employment	29	26	
	In service	37	32	
	Others	3	2	
Religion	Hindu	89	85	0.701
	Muslim	6	4	
	Christian	5	7	
	Buddhist	3	1	
Family income	Rs. 10,000-15,000	12	10	0.964
	Rs. 15,001-20,000	22	22	
	Rs. 20,001-25,000	46	41	
	More than 25,001	23	24	
Type of family	Nuclear	61	65	0.305
	Joint	42	32	
Living area	Urban	99	92	0.742
	Rural	4	5	

Table 9 shows that, all the p-values are large (greater than 0.05), therefore none of the demographic variable were found to have significant association with the quality of life among women undergoing infertility treatment.

**Table 10: Fisher's exact test for the association of quality of life of women undergoing infertility treatment with selected Obstetric variables N=200**

Table 10 shows that, all the p-values were large (greater than 0.05), therefore none of the obstetric variables was

found to have significant association with the quality of life among women undergoing infertility treatment.

Obstetric variable		Quality of life		p-value
		Moderate	Good	
History of conception	Yes	33	21	0.112
	No	70	76	
Married since	Less than 1 year	1	0	0.087
	1-3 years	71	78	
	3-5 years	31	19	
Outcome of conception	Full term delivery	9	6	0.217
	Preterm delivery	11	4	
	Abortion	1	0	
	Ectopic pregnancy	4	1	
	Stillbirth	8	10	
	No conception	70	76	
Flow of menstrual cycle	Scanty	13	9	0.893
	Normal	20	20	
	Heavy	25	26	
	Irregular flow	45	42	
Any disturbance during menstrual cycle	Painful periods	22	15	0.256
	Missed periods	39	30	
	Spotting in between cycles	27	29	
Any conception related counselling obtained	No disturbances	15	23	0.765
	Yes	67	66	
	No	36	31	
Any treatment taken for infertility	Yes, currently under treatment	95	85	0.348
	No treatment taken	8	12	
Type of infertility	Primary infertility	10	10	0.848
	Secondary infertility	39	41	
	Unexplained infertility	12	8	
	Suspected PCOS related infertility	42	38	



## 5. Discussion

The study's findings are expected to reflect the multifactorial nature of infertility's impact on women's lives. Women experiencing prolonged treatment durations or invasive procedures may show lower QoL scores. Social support, financial stability, and positive coping mechanisms might serve as protective factors.

Comparison with existing literature will help contextualise results and strengthen evidence-based nursing interventions.

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