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Original Research Article

A non-interventional, cross-sectional study to analyse the quality of life of infertile patients at rural medical college

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ABSTRACT

Background: World health organization (WHO) estimates that 60 to 80 million couples worldwide currently suffer from infertility and in India, of the 8.8% infertility prevalence, 6.7% women have primary infertility and 2.1% women have secondary infertility Objectives were to assess the quality of life of infertile patients and to appreciate the physical, mental, social, and psychological sufferings of infertile patients.
Methods: The 54 sequential infertility patients visiting gynecology OPD at SMBT IMS were self-administered a pre-validated questionnaire having 26 questions, divided into 3 components 1. Physical and psychological health of infertile patients. 2. Marital relationships of infertile patients. 3. Self-assessment of social status.
Results: Out of 54 responders, 32 participants were female and 22 were male. Maximum responders had Primary infertility. In our study 46% responders felt they were sad and depressed, and 37% feel infertility makes them angry in their physical, social and work life, 35% responders felt it was difficult to talk to their about infertility. The 24% had severe form of physical pain and discomfort and 48% people were dissatisfied with their sexual relationship, 46% felt uncomfortable and incomplete attending social situations like holidays and celebrations as they felt they were topic of discussion all the time.
Conclusions: This study, hopes to generate an empathetic approach among the masses towards patients with infertility. It might help to highlight the need for separate infertility OPDs and to include a psychological counseling dimension to the treatment of infertility

Keywords: Infertility, Quality of life, Psychological health, Marital relationship

INTRODUCTION

Infertility is defined as the failure to conceive naturally even after one year of regular unprotected intercourse it can be either primary or secondary. Primary infertility is a delay for a couple who have had no previous pregnancies, and secondary infertility is delay for a couple who have conceived previously, although the pregnancy may not have been successful, for example, miscarriage, and ectopic pregnancy.[1] The WHO estimates that 60 to 80 million couples worldwide currently suffer from infertility.[2] In India, the prevalence of infertility problem ever experienced by currently married women was 8.8%, of which 6.7% women had primary infertility and 2.1% women had secondary infertility.[3] Most infertile individuals experience stress and tension and are less satisfied with their lives than their fertile counterparts, also Infertility has adverse effects on mental, communicational, and sexual health in these couples.[4]

Infertility can threaten a woman's identity, status and economic security and consequently, be a major source of anxiety leading to lowered self-esteem and a sense of powerlessness. The psychosocial status of infertile women deteriorates to an extent that, according to a study in Mumbai, an infertile lady is called waanj (barren). There is a superstition that if she touches a baby, the baby will die.[5] It is estimated that around 40.8% of infertile women experience depression and 86.8% experience anxiety.[6] As parenthood may be a core life goal for many adults,

inability to attain pregnancy may lead to feelings of hopelessness, lack of coherence and meaning in life, loss of control, social isolation and stigma. One epidemiological study has addressed the risk of suicide among women with fertility problems.[7]

Furthermore, enormous marital life unhappiness and repetitive pregnancy trials play a vital role in worsening the experiences and the couple, especially women are predisposed to marital distress.

With extensive literature review, it was observed that quality of life was explored typically among infertile women worldwide; very few studies were conducted in India and considering both the partners. Infertility is a neglected aspect of care in our country; hence, this study is planned to explore this aspect which can generate a more empathetic approach among masses towards infertile patients.

Objectives

The study to be conducted has the following objectives: to assess the QOL of infertile patients and to appreciate the physical, mental, social, and psychological sufferings of infertile patients.

METHODS

The study proposed is non-interventional and cross sectional, and is carried out among infertile patients referring to a medical college in northern Maharashtra.

Sample size

54 sequential infertility patients attending the gynecology OPD at SMBT institute of medical sciences during month of August 2021 to January 2022.

Inclusion criteria

All the patients having either primary or secondary type of infertility, married and between 18 to 45 years of age, willing to participate will be included in the study.

Exclusion criteria

Below 18 years of age and above 45 years of age, less than 1 year infertility, incorrectly filled questionnaires and patients not willing to participate will be excluded in the study.

Data collection

Tools and procedure

The tool used for data collection was pre-validated, self-administered questionnaire.[8] Included 26 questions and is divided into three parts-1. Impact of infertility on physical and psychological health of infertile patients, 2. Impact of infertility on marital relationship of infertile patients and 3. Impact of infertility on his/her assessment about his/her status in the society.

Response formats used a five-point Likert scale scoring.

Written ethical approval was obtained from institutional ethics committee of the medical college.

The protocol was explained and basic instructions in filling up of the questionnaire were given to the participants in their own language. Verbal and written consent was signed by the participants. The questionnaire was answered like an examination and they were asked to choose the appropriate answer which is closest to their thoughts and feelings. The patient's details and records were not disclosed.

Analysis

Calculation of proportion of individual response in order to evaluate each category of response

RESULTS

Out of 54 responders, 32 (60%) participants were female and 22 (40%) were male; with maximum responders belonging to the age group of 21-30 years (50%) followed by 31-40 years (46%) which was similar to the study conducted by Katole et al.[9] It was found that the majority of the women (39.3%) belonged to 25-29 years of age group and primary infertility 37 (68%) was commonest followed by secondary infertility 17 (32%).

Table 1: Age and sex of participants.

Sex	Total no. of responders (%)	Age (Years) (%)		
		21-30	31-40	>40
Males	22 (40)	6 (27)	14 (64)	2 (9)
Females	32 (60)	21 (66)	11 (34)	0 (0)
Total	54 (100)	27 (50)	25 (46)	2

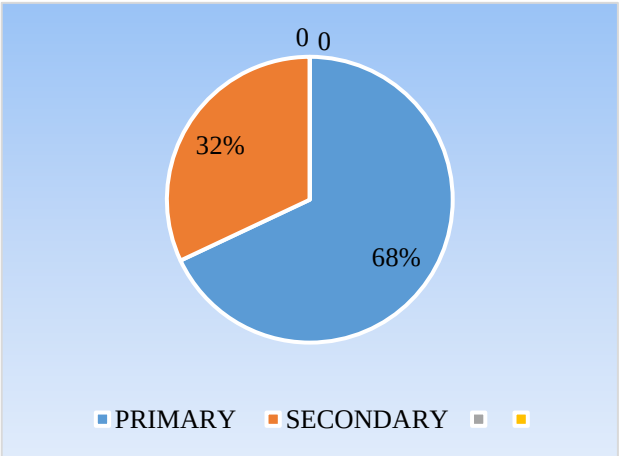

Figure 1: Type of infertility.

Table 2: Religion of participants.

Religion	Total no. of responders (%)	Males (%)	Females (%)
Hindu	45 (83)	18 (40)	27 (60)
Muslim	9 (17)	4 (44)	5 (56)
Others	0	0	0
Total	54 (100)	22	32

In our study out of 54 responders, 40 (74%) had non-consanguineous marriage and 14 (26%) had 3rd degree consanguineous marriage. We had maximum Hindu participants 45 (83%) followed by Muslims 9 (17%), which almost resembled to the study conducted by Bose et al where they had maximum Hindu couples 22 (73%) followed by Muslims 4 (13.3%) and others 4 (13.3%).[10]

Table 3: Education of participants.

Education	Total no. of responders (%)
Primary	0
Secondary	3 (5.5)
Graduate	31 (57.4)
Post graduate	20 (37.03)
Total	54 (100)

Based on education status graduates 31 (57%) and post graduates 20 (37%) were most amongst the infertility patients in our study, similar findings were observed in the study Katole et al.[9]

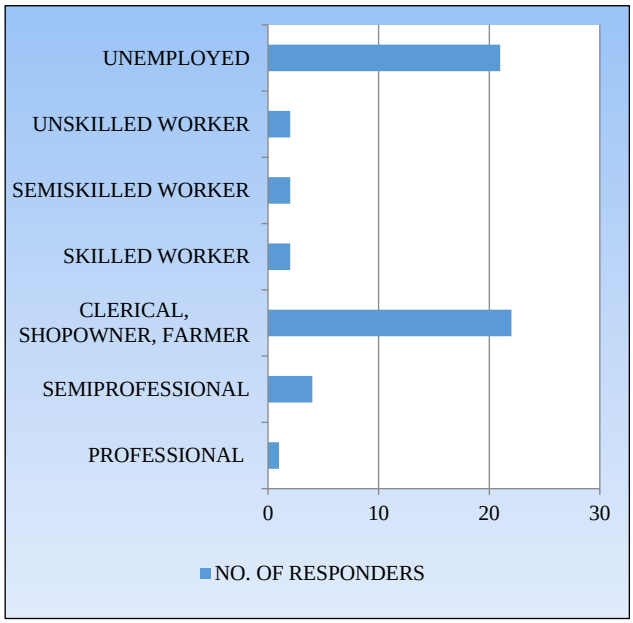

Figure 2: Occupational status.

Original Kuppuswamy's socioeconomic status scale was used to determine the occupational status of the patient and it was found that the maximum number of responders belonged to clerical, shop owner and farmer 22 (40%) followed by unemployed 21 (39%) which was exactly alike to a study conducted by Anshu et al.[11,12]

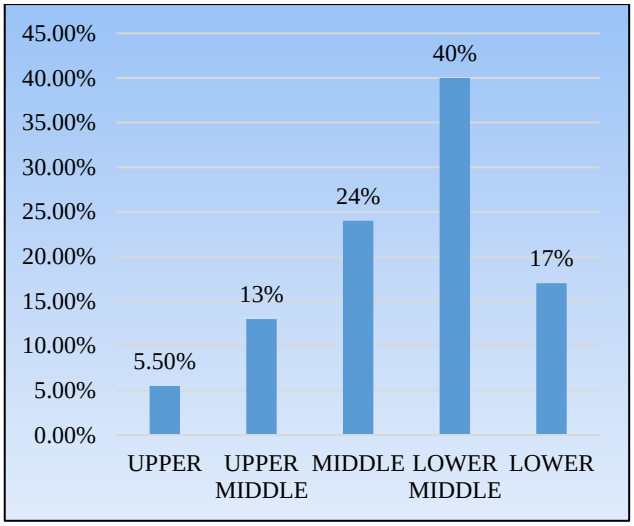

Figure 3: Socioeconomic class and infertility.

Updated BG Prasad socioeconomic status classification for the year 2021 was used to categories patient's socio-economic status.[13] The results were lower middle group 22 (41%) in maximum number followed by middle class 13 (24%), which corresponds to a study where maximum number of patients belonged to middle group 18 (60%) of socio-economic status.[10] It indicates that the majority of population is non-affording and is finding it difficult to deal with the expenses of the treatment.

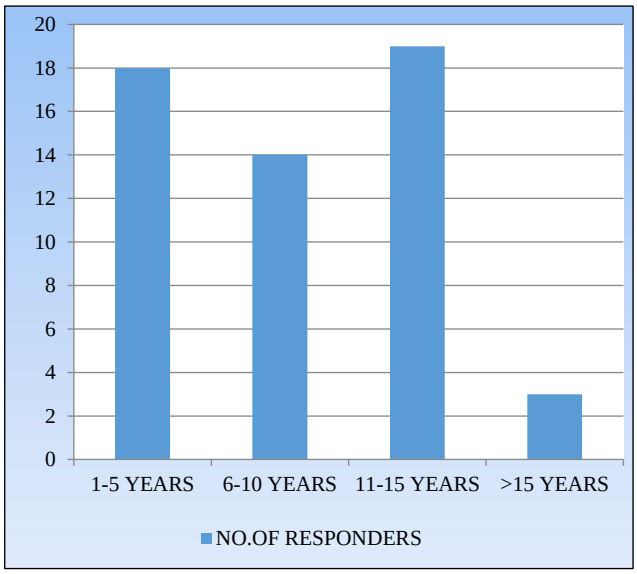

Figure 4: Years of infertility.

The 19 (35%) couples of infertilities were married for 11-15 years and 18 (33%) were married for 1-5 years similar to a study conducted by Patra et al.[3]

In our study 72% (39) responders believed to lead a healthy lifestyle and 55% (30) were satisfied with the quality of life in spite of infertility. This shows that max patients believed their lifestyle was not because of their infertility.

The 60% (32) patients believed that their attention and concentration was impaired at work and in family due to infertility related issues. The 48% (26) believed they could not go ahead with their personal and professional life goals due to infertility issues and 35% (19) were emotionally and financially drained out due to infertility, similar to a study conducted by Domaret et al.[14]

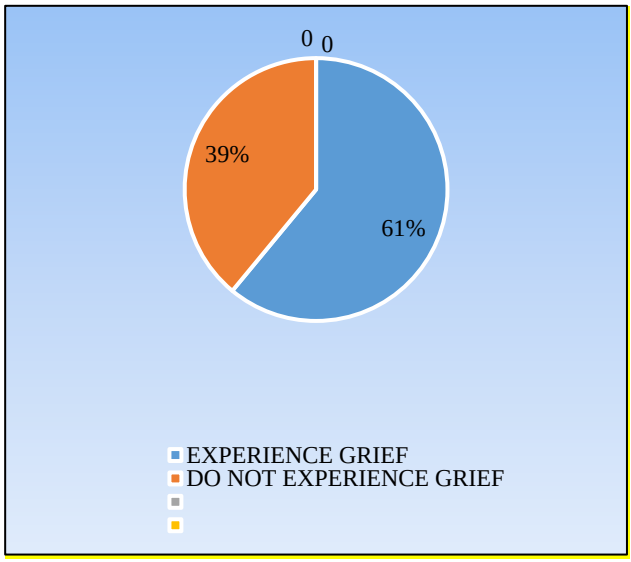

Figure 5: Psychological impact of infertility.

The 68% (37) responders fluctuated between hope and despair with every cycle of treatment, 90% (33) amongst them experienced severe grief of not being able to have a child at every failed cycle showing the psychological impact and extreme expectations at each treatment cycle similar to a study by Lenchner et al.[15]

In our study 24% (13) had severe form of physical pain and discomfort and 48% (26) people were dissatisfied with their sexual relationship; which was increasing in due course of time showing the psychosomatic and psychosexual impact of infertility. In our study 89% (48) participants felt that infertility has made them more affectionate towards each other however 55% (30) of them do not openly talk to their partners about infertility. The 76% (41) participants felt incomplete due to absence of their own child.

Our result show that lower middle-income group 22 (41%) are in maximum number followed by middle class 13 (24%). Amongst them 39% of the people had to quit their jobs or are not working to conform to the frequent schedules for hospital appointments and treatment. It indicates that the majority of population is non-affording and find it difficult to deal with the expenses of the treatment.

DISCUSSION

Graduates 31 (57%) and post graduates 20 (37%) were found to be the most amongst the infertility patients in our study, similar findings were observed in the study Katole et al where the odds of being infertile in women with education level of middle school or above was 2.4 times more as compared to women with education level below middle school (OR: 2.4; 95% CI: 1.00-5.76, p=0.04) this concludes that more the level of education, the more apprehensive they were with respect to their condition.[9] Mitthal et al in their study "An epidemiological study of infertility among urban population of Ambala, Haryana" concluded.[12] The occupational group which suffered infertility the most was clerical/shopkeepers/farmer 189 (40%) They also stated, around 39% of the people quit their jobs to conform to the frequent schedules for hospital appointments and treatment, we also found that clerks, shop owners, farmer and unemployed population was maximum visitors to infertility OPD. In our study 67% participants had infertility of more than 5 years similar to a study conducted by Patra et al where they stated Women with marital duration more than five years were more likely to consult for infertility problem as compared to women with marital duration less than five years (OR=1.43, p<0.01).[3] As the duration of the marriage increases, it also increases the social pressure to bear a child which makes the patient more anxious and makes it tough to cope up with infertility. Similar to our study, Domaret et al stated that Women receiving treatment were more likely to feel 'vulnerable' and 'drained'.[14] This shows that inability of having a child causes failure to progress ahead in major areas of professional, financial and social development in maximum productive years of life.

A study conducted by Greil et al states, women currently experiencing infertility problems display more depression and anxiety than counterparts who have eventually conceived naturally, in our study 46% (25) responders felt they were sad and depressed, and 37% (20) feel infertility makes them angry in their physical, social and work life, 35% (19) responders felt it was difficult to talk to their partners about infertility as they feared a negative impact on their relationship due to it.[16] The 46% (25) felt uncomfortable and incomplete attending social situations like holidays and celebrations as they were topic of discussion all the time, they found that people were more interested in knowing when the couples will have a child or when the women will conceive or who is at the fault of not being able to bear a child rather than celebrating the occasions. The 52% of population felt that the family understood what they are going through but did not give enough support, 35% (19) responders isolated themselves from social gatherings and equal amount felt jealous, inferior and resentment to other people having children which affected their mental harmony, showing emotional turmoil the patients experience with infertility. Lenchner et al had 23% of respondents with a clinical level of anxiety and 11% with a clinical level of depression (42% had a clinical level of complicated grief) in their study on infertile couples; similar to our study, in their study they conclude people with infertility are not getting adequate social support and they are unsatisfied with support given,

this may result in even more distress; Gokler et al has highlighted this point in their study that in many populations, being a mother and raising children is very important for women, they feel empty, defective, inadequate and worthless when faced with problem of infertility in their lives.[15,17] This situation leads to loneliness by the isolating themselves from their community.

Domar et al inferred most women (59%) and especially those receiving treatment (63%), felt that they had a supportive partner, similarly in our study 89% (48) felt that infertility has made them more affectionate towards each other and has strengthened their commitment and created positive impact on the relationship with their partner but, in spite of strengthened relationship 55% of them do not talk to their partners about the issue as it will increase the pain or stress in the opposite partner and 76% felt incomplete in their relationship and in the family due to absence of their own child. As in our results, Hasanpoor-Azghdy et al.[14,18] Concludes, societal pressure, repetitive costs and prolonged cycles of treatment, worsens mental agony, physical pain and monetary burden of infertile couples affecting QOL.

Limitations

Our study population was rural/tribal with small sample size, our study population was conservative and reserved about discussing infertility related issues, we recommend a study on a larger population base covering representative sample from rural, tribal, urban, and affluent society to have complete information about QOL in infertile couples.

CONCLUSION

Infertility in India comes wrapped in shame and stigma, since parenthood is considered the norm and a couple unable to produce a child of their own is subjected to cruel judgment. Through this study, one can hope to generate a more empathetic approach among the masses towards patients (and especially women) with infertility. It will educate people and will help to modify this stigma-loaded topic into a living room discussion. It might help to highlight the need for separate infertility OPDs and to include a psychological counseling dimension to the treatment of infertility.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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