A Study of Quality of Life, and Psychiatric Comorbidities in Infertility Women in North West Rajasthan

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Abstract
Background: Infertility challenges the infertile couple’s life expectations. It is an unplanned and unexpected stressor and hence couples typically lack the knowledge and skill set to adequately manage stress related to infertility. In this study to determine the quality of life & psychiatric co-morbidities in infertile women.

Material & Methods: The present study conducted in psychiatry clinic in S.P. Medical College, Bikaner, Rajasthan. The sample comprise of 60 consecutive Infertile women attending Gynaecology OPD of S.P. Medical College, Bikaner & those who fulfilling the specific criteria was included in the study. Sixty ages matched healthy fertile women who had similar socio demographic profile (preferably relatives of the infertile women) was recruited as control group. Prior to participation in the study a full informed written consent was taken from the participants. Complete confidentiality was ensured to them.

Results: In our study showed the maximum no. of cases seen in third decade (total 62) followed by forth decade (n=31 in both) in both groups. There were no significant differences when the socio-demographic parameters of the group were compared in terms of age, educational level and employment status, religion, living situation and type of family. In present study show the physical health score, psychological score and quality of life score were highly significant (p<0.0001*** but social relationship score and environment score are significant (p=0.0046** and p=0.0049** respectively).

Conclusion: The study was conducted in a tertiary hospital and is representative of the flow of patients at this hospital. So the findings from this study cannot be generalized. The sample size of the present study was small and the findings need to be explored further with a larger sample size.

Keywords: Infertility, Comorbidity, Sociodemographic, Quality of Life.

Introduction
Infertility has been reported as an important stressor and life critical point in different cultural settings¹. Infertility in many parts of the world has damaging concomitant for men’s and women's health. Due to the high cultural premium placed on childbearing in many countries, infertility often poses serious social problems for couples². Cross-
culturally, infertility is recognized as a stressor event with the potential to cause destruction in the lives of individuals, couples and families. Social stigma of infertility can have lifelong outcomes, “affecting a woman for the remainder of her life, preventing succeeding marriage, and making her economically unprotected.” Childlessness results in social stigmatization for infertile women and places them at risk of serious social and emotional consequences. It is a source of distress for couples as societal norms and distinguish religious platitude may equate infertility with failure on a personal, interpersonal, emotional or social level. Women bear the impact of these societal perceptions in most of the cases. Psychologically, the infertile woman display significantly higher psychopathology in the form of tension, hostility, anxiety, depression, self-blame and suicidal ideation. Infertility is an intergenerational crisis which threatens the family and the extended family’s future. The inability of family members to understand and discuss reproductive loss is ubiquitous, possibly because family members themselves are experiencing their own losses, such as the parents of the infertile couple never becoming grandparents. In short, not having children may decrease social recognition, and involuntary childlessness may lead to a sense of failure and disappointment, that, in turn, should lower people’s sense of well-being.

Women worldwide appear to bear the major burden of infertility, in terms of blame for the reproductive failing; personal anxiety, frustration, grief, and fear; marital duress, abuse, divorce, polygamous remarriage, or abandonment; and social stigma and community ostracism. Sociologists believe that childlessness is also a common cause of divorce. Most of the studies indicate that marital breakdown is clearly associated with childlessness. Infertility is often experienced as a biopsychosocial crisis accompanied by adverse cognitive-performance and affective outcomes, such as overgeneralization of the loss of control over reproduction to other aspects of life, hopelessness, feelings of unfulfillment, inability to plan for the future and compromised ability to find alternate goals and meaning in life, social withdrawal, anxiety and depression.

Fertility is a basic component of reproductive health. Prevention of infertility as well as appropriate treatment of infertility is essential part of reproductive health. In humans, infertility may be described as inability of a woman to either conceive or carry out pregnancy to full term. Infertility is defined as 1 year of unprotected intercourse without pregnancy. This condition may be further classified as primary infertility, in which no previous pregnancies have occurred, and secondary infertility, in which a prior pregnancy, although not certainly a live birth, has occurred. Infertility challenges the infertile couple’s life expectations. It is an unplanned and unexpected stressor and hence couples typically lack the knowledge and skill set to adequately manage stress related to infertility. Coping has been defined in psychological terms as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are exceeding the resources of the person”. Couples with infertility engage in a variety of coping strategies in an attempt to regain control over their lives and rebalance the disruptions that they have experienced in their personal, marital and social relationships.

Material & Methods
The present study conducted in psychiatry clinic in S.P. Medical College, Bikaner, Rajasthan. The sample comprise of 60 consecutive infertile women attending those who fulfilling the specific criteria were included in the study. Sixty ages matched healthy fertile women who had similar socio demographic profile (preferably relatives of the infertile women) was recruited as control group. Prior to participation in the study a full informed written consent was taken from the...
participants. Complete confidentiality was ensured to them.

**Inclusion Criteria**
1) Aged between 18 and 45 years.
2) Living with husband for at least last one year having unprotected sexual intercourse.
3) Patients diagnosed as infertile women by consultant gynecologist.
4) Cooperative and ready to give consent.
5) Able to understand the questionnaire.

**Exclusion Criteria**
1) Infertile married women age less than 18 years and more than 45 years.
2) Not living with husband for at least last one year.
3) Uncooperative and unwilling to give consent.
4) Having incapacitating medical or surgical illness.
5) Women with secondary infertility.
6) Unmarried women.
7) Husband with infertility.

Subjects were thoroughly evaluated on the especially designed proforma, which includes identification data (name, age, sex etc.) and socio demographic details (education, occupation, marital status etc.). Patients' clinical profile was also recorded. Diagnosis of psychiatric disorder was made by using ICD-10 criteria and diagnosis was confirmed by a consultant Psychiatrist.

**Tools of Study**
1) A Semi structured specially designed proforma that includes socio demographic details and clinical profile of patients.
2) WHO Quality of Life – BREF Scale, Hindi (version).
3) Goldberg’s Health Questionnaire (GHQ-12).

**Result**
In our study showed the maximum no. of cases seen in third decade (total 62) followed by forth decade (n=31 in both) in both groups (table 1). There were no significant differences when the socio-demographic parameters of the group were compared in terms of age, educational level and employment status, religion, living situation and type of family. (table 2,3 & 4)

In present study the table 5 show the physical health score, psychological score and quality of life score were highly significant (p<0.0001*** but social relationship score and environment score are significant (p=0.0046** and p=0.0049** respectively).

**Table 1: Age wise distribution of patients in case & control group**

| Age Group  | Control | Case |
|------------|---------|------|
| 18-22 yrs  | 9       | 15   |
| 23-27 yrs  | 31      | 31   |
| 28-32 yrs  | 20      | 11   |
| 33-37 yrs  | 0       | 2    |
| 38-42 yrs  | 0       | 1    |
| Total      | 60      | 60   |

**Graph 1:** Age wise distribution of patients in case & control group
Table 2: Religion & Domicile wise distribution of patients in case & control group

|                  | Control            | Case              | Chi-Square test | P-value |
|------------------|--------------------|-------------------|-----------------|---------|
| Religion         |                    |                   |                 |         |
| Hindu            | 50 (83.33%)        | 53 (88.33%)       | 0.274           | 0.601   |
| Muslim           | 10 (16.66%)        | 7 (11.66%)        |                 |         |
| Domicile        |                    |                   |                 |         |
| Urban            | 47 (78.33%)        | 49 (81.66%)       | 0.052           | 0.819   |
| Rural            | 13 (21.66%)        | 11 (18.33%)       |                 |         |

Table 3: Socio-demographic profile of patients in case & control group

|                  | Control            | Case              | Chi-square test | P-value |
|------------------|--------------------|-------------------|-----------------|---------|
| Education        |                    |                   |                 |         |
| Illiterate       | 3 (5%)             | 4 (6.6%)          | 7.613           | 0.268   |
| Primary          | 9 (15%)            | 2 (3.3%)          |                 |         |
| Middle           | 15 (25%)           | 19 (31.66%)       |                 |         |
| Secondary        | 6 (10%)            | 6 (10%)           |                 |         |
| Sr. Secondary    | 3 (5%)             | 8 (13.33%)        |                 |         |
| Graduate         | 18 (30%)           | 15 (25%)          |                 |         |
| Post graduate    | 6 (10%)            | 6 (10%)           |                 |         |
| Occupation       |                    |                   |                 |         |
| Unemployed       | 0 (0%)             | 0 (0%)            | 19.714          | 0.0001***|
| Self employed    | 15 (25%)           | 6 (10%)           |                 |         |
| Housewife        | 33 (55%)           | 51 (85%)          |                 |         |
| Farmer           | 1 (1.6%)           | 0 (0%)            |                 |         |
| Labour           | 10 (16.66%)        | 0 (0%)            |                 |         |
| Any other        | 1 (1.6%)           | 3 (5%)            |                 |         |
| Self monthly income |                |                   |                 |         |
| No income        | 34 (56.66%)        | 55 (91.66%)       | 25.773          | 0.0001***|
| < 5000 rs        | 7 (11.66%)         | 4 (6.66%)         |                 |         |
| 5001-15000 rs    | 15 (25%)           | 0 (0%)            |                 |         |
| 15001-25000 rs   | 0 (0%)             | 1 (1.6%)          |                 |         |
| >25000 rs        | 4 (6.66%)          | 0 (0%)            |                 |         |

Table 4: Family profile of case and control group

|                  | Control            | Case              | Chi-square test | P-value |
|------------------|--------------------|-------------------|-----------------|---------|
| Family type      |                    |                   |                 |         |
| Joint            | 6 (10%)            | 20 (33.33%)       | 9.639           | 0.008   |
| Nuclear          | 29 (48.33%)        | 22 (36.66%)       |                 |         |
| Extended Nuclear | 25 (41.66%)        | 18 (30%)          |                 |         |
| Family Size      |                    |                   |                 |         |
| <5               | 30 (50%)           | 26 (43.33%)       | 1.886           | 0.390   |
| 5-10             | 27 (45%)           | 33 (55%)          |                 |         |
| >10              | 3 (5%)             | 1 (1.66%)         |                 |         |
| Family Income    |                    |                   |                 |         |
| < 5000 rs        | 0 (0%)             | 1 (1.66%)         | 10.687          | 0.017   |
| 5001-15000 rs    | 24 (40%)           | 40 (66.66%)       |                 |         |
| 15001-25000 rs   | 10 (16.66%)        | 7 (11.66%)        |                 |         |
| >25000 rs        | 26 (43.33%)        | 12 (20.0%)        |                 |         |
| Psychiatric H/o in family |     |                   |                 |         |
| Yes              | 0 (0%)             | 0 (0%)            |                 |         |
| No               | 60 (100%)          | 60 (100%)         |                 |         |
| Family H/o in Infertility |     |                   |                 |         |
| Yes              | 0 (0%)             | 3 (5%)            | 1.368           | 0.242   |
| No               | 60 (100%)          | 57 (95%)          |                 |         |
| Type of Marriage |                    |                   |                 |         |
| Arrange          | 58 (96.66%)        | 57 (95%)          | 0.000           | 1.000   |
| Love             | 2 (3.33%)          | 3 (5%)            |                 |         |

Table 5: Shows the various domain in case and control group

|                  | Control            | Case              | Difference of mean | P-value |
|------------------|--------------------|-------------------|--------------------|---------|
| Physical Health score | 67.83± 12.23  | 56.10± 14.48  | 11.73± 2.448 | <0.0001***|
| Psychological Score | 62.32± 14.55  | 44.97± 14.49  | 17.35± 2.65  | <0.0001***|
| Social Relationship Score | 57.53± 14.72 | 49.57± 15.48 | 7.967± 2.758 | 0.0046**  |
| Environmental Score | 58.10± 10.87 | 52.58± 10.21 | 5.517± 1.926 | 0.0049***  |
| Total Qol Score    | 61.38± 11.33  | 50.80± 11.66  | 10.57± 2.10  | <0.0001*** |
Discussion

This present study estimated the quality of life in fertile and infertile women. Based on our results, age is one factor affecting the quality of life. Khyata et al., reported that aging caused a reduction of the quality of life in infertile women\(^7\). In contrast, a study showed that long-term treatments in infertile couples caused better accept of their living conditions and hence increase the quality of life in older infertile couples\(^8\).

The findings emerged from the study indicate that the major dimension quality of life of infertile women is lower than in fertile women. Infertile women have a worse situation, in the mean scores: physical function, role limitations due to physical problems, general health, vitality, social functioning, role limitations due to emotional problems and mental health. Other studies have shown that infertility is a devastating and painful experience, especially for women. Consistent with our results, a study showed that infertile women experience more feelings of helplessness in comparison to fertile women. Also, infertile women are more at risk of mental and emotional disorders, depression, anxiety, low self esteem and marital dissatisfaction. Apart from infertility factors, even when the male infertility is diagnosed, infertile women can experience anxiety more than fertile women\(^9\).

Researchers have studied different dimensions of infertility impacts on couples. They concluded that infertility can be considered as life crisis, chronic illness and the combination of these. Due to the complicated treatments and high levels of stress, infertility has become a feature of chronic physical illness\(^10\). Other studies have confirmed the reduced quality of life after infertility\(^11,12\).

A study by Ramezanzadeh et al found that depression was more common in “unexplained cause” group comparing to other causes of infertility\(^13\). Studies by Wright J\(^14\), Sabourin S\(^15\), Tarlatzis I\(^16\), have also found that infertile women showed higher rates of psychiatric symptoms than their partners, especially in female and unexplained factor infertility.

Due to the medicalization of the problem of infertility, the priority of the specialized infertility centres is the treatment of the physical problems. The psychological problems are often neglected and not given their due importance. Ignoring the psychological factors and merely considering infertility as a medical problem will therefore create huge obstacles in understanding & treating such individuals from a holistic point of view. Hence, infertile women should be routinely evaluated for psychological disturbances and psychiatric morbidity to maximize their health.

Conclusion

The study was conducted in a tertiary hospital and is representative of the flow of patients at this hospital. So the findings from this study cannot be generalized. The sample size of the present study was small and the findings need to be explored further with a larger sample size.

References

1. Newton, C. R., Sherrard, W., & Glavac, I. (1999). The fertility problem inventory: Measuring perceived infertility-related stress. Fertility and Sterility, 72(1), 54-62.
2. Okonofua, F.E. (2003). New Reproductive Technologies and Infertility Treatment in Africa. African Journal of Reproductive Health 7: 7-8.
3. Burns, L. H., & Covington, S. N. (2006). Psychology of Infertility. In S. Covington & L. H. Burns (Eds.), Infertility counseling: A comprehensive handbook for clinicians (Seconded.). New York. Cambridge University Press.
4. Fido A, & Zahid MA. (2004). coping with infertility among Kuwaiti women: cultural perspectives. Int J Soc Psychiatry. 50(4), 294-300.
5. Unisa S, 1999. Childlessness in Andhra Pradesh, India: Treatment -Seeking and Consequences. Reproductive Health Matters, 7(13): 54 -64.
6. Berek & Novak’s. Text Book of Gynaecology, Fifteenth Edition.
7. Khayata GM, Rizk DE, Hasan MY, Factors influencing the quality of life of infertile women in United Arab Emirates *Int J Gynaecol Obstet* 2003 80(2):183-88.
8. Rashidi B, Montazeri A, Abedinia N, Health-Related Quality of life in Iranian *Couples Receiving IVF/ICSI Treatment (Views: 109)* PAYESH 2012 11(3):385-89.
9. Greil AL, Infertility and psychological distress: a critical review of the literature *Soc Sci Med.* 1997 45(11):1679-704.
10. Kainz K, The role of the psychologist in the evaluation and treatment of Infertility *Women's Health Issue* 2001 11(6):481-85.
11. Coffey S, Bano G, Mason HD, Health-related quality of life in women with polycystic ovary syndrome: a comparison with the general population using the Polycystic Ovary Syndrome Questionnaire (PCOSQ) and the Short Form-36 (SF-36) *Gynecol Endocrinol.* 2006 22(2):80-86.
12. Nilforooshan P, Ahmadi S, Abedi M, Attitude towards infertility and its relation to depression and anxiety in infertile couples *J Reprod Infert* 2006 6(5):546-52.
13. Ramezanzadeh F, Aghssa MM, Abedinia N, Zayeri F, Khanafshar N, Shariat M, et al. A survey of relationship between anxiety, depression and duration of infertility. *BMC Wom Health.* 2004; 4(1):9.
14. Wright J, Duchesne C, Sabourin S, Bissonnette F, Benoit J, Girard Y. Psychosocial distress and infertility: men and women respond differently. *Fertil Steril.* 1991; 55(1):100–8.
15. Sabourin S, Wright J, Duchesne C, Belisle S. Are consumers of modern fertility treatments satisfied?. *Fertil Steril.* 1991; 56(6):1084–90.
16. Tarlatzis I, Tarlatzis BC, Diakogiannis I, Bontis J, Lagos S, Gavriilidou D, et al. Psychosocial impacts of infertility on Greek couples. *Hum Reprod (Oxford, England).* 1993; 8(3):396–401.